

Audible and Inaudible Choreography

Atmospheres of Choreographic Design

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1. HEARING DANCE – HEURSCHPIEL

Protocol no. 1: as an obscure beginning – a reference to OuLiPo¹ and Georges Perec's radio play *Die Maschine*, imagined in French but first written in German with translator Eugen Helmlé, the broadcast released by Saarländischer Rundfunk in November 1968. Corresponding with the translator, Perec refers to the radio play as an *Ohrspiel* (ear play) or *heurschpiel*, in his wonderful homophonic spelling. The theme of my presentation is closely related to such correspondences and transpositions in the realm of choreography and scenography, as I invite you here² to listen to sound of movement, to movement of sound – the inaudible and the *choreosonic*. My questions revolve around listening perception of choreography. One part of this performance lecture dwells on sonic arts theories and how they refer to *sonic objects*. The greater part is inspired by dance practice, leading us to *choreographic objects*. I address matters of design composition, acousmatics, audio-vision, film, and architecture, and at the end briefly show some of the sounding wearables we create in the DAP-Lab.

1 | OuLiPo is the name of the literary group Ouvroir de Littérature Potentielle, founded in Paris in 1960 by the *useless* researchers of the Collège de Pataphysique that included conceptual artists (Marcel Duchamp), mathematicians (Claude Berge), chemical engineers (François Le Lionnais), poets and writers such as George Perec, whose most well known oulipian writing is his novel *La Disparition* (an entire novel scripted without using the letter »e«). See Hugill 2012.

2 | This chapter is the score of a performance-lecture presented with a film that intermittently plays visual and aural tracks, separated from one other, representing or alluding to some of the movement or sound examples under discussion. The tracks are indicated in the score. The film's preface displays a silent image of Robert Morris' *Box with the Sound of Its Own Making* (1961).

Film sequence: Ivana Müller, *While we were holding it together*, 2006 (visual track).

Maschine – das heurschpiel. After discovering it last year, I have listened to it ever since. The voices of the polyphonic recording now haunt me, they appear in my dreams and on my travels, I walk with them in my walks, they seem inside me, reverberating. They are also part of the soundtrack for my new film project – *Sisyphus of the Ear*³ – in which I perform a difficult climb up the steep hills of a quarry.

These voices are invisible, and perhaps also inaudible to you. The phantasmagoric invisibility of *Stimme*, of voice and sound, fascinates me – but in my choreographic work I am equally interested now in perceptual or affective issues of *Stimmungen*, the atmospheric, and thus architectures of immanence, tiny sounds, air, breath, exhalation, roaming through, diffusion, silence, corporeal movement and stillness, vibration, sensorial, emotional and symbolic flows occurring between bodies and environment, touch, air, scent, light.

How can movement flows be audible – just think of Deborah Hay's notion of cellular movement? How are they more, or less, audible? How do you hear fog? How do you hear what you sense in an atmosphere? Touch and being touched – how do you hear skin? How do you imagine a membrane? Does it flutter, like in a loudspeaker? Yet sound is also conducted through bones. Do your bones flutter? How do you feel color? How do sounds, always ephemeral, evanescent, and immaterial – or *formless*, to use one of Rosalind Krauss' favored terms from her notorious essay »Sculpture in the Expanded Field« (1985: 276-290) – how do they connect into visuality and the legible (thus also into music if we consider music a legible/notated medium)? How is sound not subsumed to the visual and becomes something else as the heard? Can you separate hearing from seeing (or the other overlapping sensing impressions)? And how can you separate your sense impressions from technologies of the self, the muscles,

3 | *Sisyphus of the Ear* premiered in Ufa and Moscow (Russia) in October 2016, and was created after I experienced hearing loss during the summer. Fabrizio Manco recently completed his PhD thesis on *Ear Bodies: Acoustic Ecologies in Site-Contingent Performance* (University of Roehampton 2016). His enquiry into ear body – a bodied experience of sound and listening where the whole body becomes an ear – derives from his own experience of chronic tinnitus and provocatively addresses hearing/listening in contexts of performance practice where sound and body move and perform by relating to the constantly changing acoustic environment. *Sisyphus of the Ear* is such a contingent performance: it takes in the sound of the quarry.

glandular mechanics, bones, organs, molecular receptors, and neurons, from mediating conditions and apparatuses?⁴

Film sequence: Kathy Hinde, *Tipping Point*, 2016 (audio track).

Regarding these questions, I turn to several sound theorists. My first reference is to Salomé Voegelin's book *Listening to Noise and Silence*:

Sound fleshes out the visual and renders it real; it gives the image its spatial dimension and temporal dynamic [...] This impulse to subsume sound into the visual is so ingrained as to blight music criticism and the discourse of sound art [...] Vision, by its very nature assumes a distance from the object [...] Seeing always happens in a meta-position, away from the seen. And this distance enables a detachment and objectivity that presents itself as truth. (2010: xi-xii)

No such truth, then, for the aural. I am less worried about the subsuming of sound to the visual, and more curious about the stretching of our bodies into listening to something we may or may not know, the noise or mysterious tension that makes acousmatic sound compelling since we do not fully comprehend or realize where it comes from.

Ivana Müller: *While we were holding it together*, 2006 (audio track).

The kinaesthetic and muscular senses are not addressed by the sound critic. We should keep them in close proximity to sonic experience of course, perhaps also bringing into our awareness the important anthropological aspect of multimodal perceptual experience in fluid environments, in *temperaments of being*, as they are called by Tim Ingold in his reflections on the »weather-worlds« of movement and cognition (2011: 130-131).⁵

4 | For a comprehensive artistic and theoretical reflection on inter-sensory perceptions, see the catalog (Jones 2006) for the exhibition *Sensorium: Embodied Experience, Technology, and Contemporary Art*, List Visual Art Center, MIT, Cambridge, Oct. 12, 2006 – April 8, 2007.

5 | See also his evocative chapter on »Four Objections to the Concept of Soundscape« (136-139) where he coins the notion of being »ensounded« (139), arguing that what applies to wind applies to sound: »Sound, like breath, is experienced as a movement of coming and going, inspiration and expiration. If that is so, then we should say of the body, as it sings, hums, whistles or speaks, that it is *ensounded*. It is like setting sail, launching the body *into* sound like a boat on the waves or [...] like a kite in the sky« (139).

2. PROTOCOL NO. 2: WEATHER-WORLDS

After a particular dance performance – and as I am trying to reconstruct some of the movement in my mind or draw out the tactile memory, moving after the kinaesthetic impressions left in me (we might call them traces or imaginary transpositions) – I often ask myself whether I can still hear the dance? Can I recall the score, the aural trajectories, retrace the acoustical dynamics, timbres, dynamic shapes, colors, phrasings, tonal blips, ruptures, the noise? Do rhythm and sonorities constitute particular traces – like the »traces of dance« as Laurence Louppe (1994) called the various notations of choreography – with which we can associate the music of dance? Is musicality of dance, and whatever this might mean, dependent on a particular understanding of the organon and organology of western music (tonality, harmony)?

Pina Bausch: *Café Müller*, 1978 (audio track).

What was it in a particular performance that motivated me, affected me, to *hear* the choreographic and become attuned to the ways in which the dancers' bodies and their movements made sound and vibrated in the environment, through the environment? Do I hear different from you, do I listen differently to the instruments, the performers, thus how do I share my listening, how do I make it available to others?⁶

Pina Bausch: *Café Müller*, 1978 (visual track).

What I am addressing here is perhaps a question first asked, historically, when choreography is no longer bound to music, that is to say, when the performances are not created for and with music but live independently from musical composition and generate their own open score. With open score I mean that the choreographic is generative, it is its own instrument (the passage in Pina Bausch' *Café Müller* you just saw involves a dancer's body smashing into the wall: you hear a thumping sound, you also remember hearing the sound of chairs constantly being moved out of the way). To recall the *constraints* in Perec and the Oulipian writers who worked with particular poetic operations – the choreographic, in this sense, would be its own (sound) machine.

6 | On the matter of sharing sound listening, see Szendy (2001) who develops his thesis about the ecstatic structure of listening, claiming that listening is a practice whose essence always requires the presence of another (another listener, another work, another performer, another instrument); listening is not reduced to sensory stimuli, or a perceptual phenomenology but its investigation is philosophical in nature.

Bill Bojangles Robinson: *Stair Dance*, 1934 (visual track).⁷

William Forsythe: *I don't believe in outer space*, 2011
(audio track of imaginary table tennis scene).

kaum einen hauch
die vögelein schweigen
im walde
warte nur balde

du

[umkehrung]
schweigen

stop
fehler

spüren

zurück

Georges Perec: *Die Maschine, Protocol no. 2*, 1968 (audio track).

3. THE WEATHER: EARBODIES

I replay this episode from Perec's *Ohrspiel* because all summer I was preoccupied with a project that involved my working on shooting film and editing, without that I had received any word yet from the composer. My silent film choreography stimulated historical research – following some visual flashes taking me back to the early 20th century. I imagined Loie Fuller's billowing costume when she danced her serpentine light and colors. A spectral being, ghost of fluid motion. How did she step up? From the historical evidence we know that Fuller practiced her serpentine dance – an evolving *genre* of the skirt dance that had become big entertainment in vaudeville theatres and music hall revues in the 1890s – as a multi-sensory experience in which her whirling fabrics interacted with colored light, magic lantern projections and other optical stage devices (for devices to the music she used cf. Lista 1995: 143-151).

Conceived practically in parallel with the birth of cinema, the serpentine dance has a unique legacy as a phenomenon which is at once proto-cinematic and cinematic, and, more radically, one which foreshadows expanded cinema and multi-media shows. To early filmmakers, the organically whirling silk fabric offered itself as an ideal *medium*

7 | The reference to tap dance as its own machine is so obvious that I don't wish to comment on it. The film makes clear these undercurrents and cross-references.

through which to assert motion and time as cinema's two vital properties. (Uhlirova 2015: 21)

I looked for early Fuller dances on film, and the shorts I found are silent, so I can only imagine what was implied by audience responses at the time, for example when a New York Herald reporter who went to the Folies-Bergère wrote about the theatre »in complete darkness, the audience very still, a violet light then shining upon Fuller entering in her outstretched wings of silk, the music [...] dramatic, weird, sensuous, and dreamy by turns« (Hindson 2015: 77).

Loïe Fuller: *Serpentine Dance*, 1897 (visual track).

Dance philosopher Laurence Louppe claims that

very early in the history of dance modernity the traditional association between dance and music became intolerable – at least in terms of the received norms as, for example, the idea of ›bending‹ dance reductively to specialised musical forms. (2010: 220-21)

She goes on to say »we owe it to Isadora Duncan to have dissociated dance from so-called ballet music«, and then suggests that

the great periods of radicality in dance and modernity (1910-30, 1960-70) have thus given rise to works danced in silence, a practice of Wigman as well as Jooss and Leeder in Germany in Laban's wake or by Doris Humphrey and José Limón in the United States. (2010: 220-21)

I wondered why I had not come across a history of silent dance, or a history of *danse concrète*. Louppe's examples are somewhat paradoxical, as she mentions Humphrey's *Water Study* (1928) pointing to the dancers' *breathlessness* or use of audible breathing, and also to Laban's and Wigman's effort to break the dominance of music by replacing it, not just with silence, but with sounds from other sources, including groans, voice, language. Louppe implies that it was necessary to *un-mute* dance, therefore

The ritual and sacred character attached to silent movement had to be profaned in favour of an open expressivity [...] This confers on the presence of language in current contemporary dance works a particularly unsettling role – that of an *elsewhere* to received codes and traditional definitions. (2010: 224)

It is clear today that language, voice, breath can play many different roles on the choreographic stage, not only that of reparation and retrieval of something ruptured from the body or of something unbearable or embarrassing. In this

context Michel Chion's comment on sound in cinema is fascinating: he argues that sound was used in the beginning to cover up the unpleasant sound of the projector (Chion 1990), whereas Louppe implies that dancers' noise on stage was considered ugly or indiscreetly visceral.



Fig. 1: Loïe Fuller in *Serpentine* dance costume, 1898. Reproduced from *Birds of Paradise: Costume as Cinematic Spectacle*, 2015.

Early physical transformations of the modern dancing body through the use of technologies are discussed in Rhonda Garelick's book *Electric Salome: Loïe Fuller's Performance of Modernism*, pointing to Fuller as one of the pioneers of early modern dance and stage technologies. Her *Serpentine Dance* and *danses lumineuses* – such as *Fire Bird* – presented innovative movements of body and lighting technologies so powerful that she left her audiences at the Folies-Bergère breathless. Fuller's captivating effect is attributed to a specific way of moving with her tools and materials, the combination of her body, costume and lighting instruments, the disembodied rising and falling of silken shapes (see Garelick 2007: 4-5). The design features of Fuller's *danse concrète* are developed in direct relation to the movement and resultant *bunraku*-like floating shapes of the dance – Fuller as floating image-apparition and hidden manipulator of the animated costume. What the recent film exhibition *Birds of Paradise: Costume as Cinematic Spectacle* (London and New York, 2010-2011) fore-grounded was the extraordinary manner in which Fuller overturned the relationship between dance, space/place, and sound by making her own body a screen for the image (and thus film and early 20th century moving image/capture technologies). She danced her inaudible choreography receiving the light projections, animating

them with the »billowing folds of cloth whose undulating secrets her arms« (Louppe 2010: 226).

What *Birds of Paradise* does not reveal is early film's attitude vis-à-vis inaudible choreography, and of course one could imagine silent film perfectly tuned to the deferral of sound towards its inaudible boundary, to the delays and returns – the phenomenon of how we are performed and subjected by sound's *ungraspability*. As Manco suggests in his writings on »ear bodies« – we need to become aware of how much *sound, bodies and their movements* are intermingled and mutually generating. From lost places, an auditory layered work of listening through veils of raucous splendid silence, sounding folds of space are slowly enhanced perhaps, bridging the impossible. In a synaesthetic sense, we may in fact hear Fuller's ghost.

4. GHOSTCATCHING/OHRENBLICK

Bill T. Jones/Shelley Eshkar/Paul Kaiser: *Ghostcatching*, 1999 (visual track).

Taking this cue from Fuller's inaudible spectral dances, I move forward a hundred years to Bill T. Jones and his collaboration with Shelley Eshkar and Paul Kaiser on the creation of *Ghostcatching* (1999). The poster of the symposium documented in these proceedings had as its visual motif an image of a motion captured dance avatar created from the captured data (through software) – and thus it seems pertinent to speculate briefly on these digital traces of movement. They are clearly data visualizations; motion capture does not deal with sound. Yet I also refer you to Jones's voice, transmitted on the audio track of this audio-visual installation, almost as if to tease us with a kind of testimony, grain of the voice, material evidence of the disappeared, dematerialized body.

Bill T. Jones/Shelley Eshkar/Paul Kaiser: *Ghostcatching*, 1999 (audio track),
Transition: Merce Cunningham/John Cage, *Variations V*, 1965 (visual and audio track).

Without going into a discussion of this familiar milestone of early motion capture dance-technology, except noticing that it is a rare example of a digital voice-over dance, I wish to reflect briefly on another assumption made by many of us when we learnt about the early Cunningham, Cage and Rauschenberg collaborations in the 1960s, which also, along with the Judson Church, preceded the more recent movement of dance and technology. Whereas Jones's voice may have been recorded while he danced (or created during postproduction), listening to and looking at *Variations V*, the sound of the tape machines and radios appears entirely unrelated to the movement.

In her very brief section on music and choreography, Louppe however suggests that Cunningham does *not* separate dance from music, as is often claimed:

[He] never eschews sound in his works [...]. But in an exact inverse of Wigman, he does not accept that the relation between dance and music temporalities should be made on the dynamic level – precisely where musical energy is too powerful not to dominate the dance. It is on the contrary on the notion of an absolute time – clock time – foreign to experience that he has built a possible relation to music as a *pure accident of simultaneity*, proving thus that from Laban to Wigman to Cunningham the breach in dance-music relation is always made through the rejection of an element judged particularly undesirable within than relation. (2010: 221)

Turning to Cunningham Dance Company's *BIPED* (1999), I want to refer to the composer's notes on such »accidents of simultaneity«, and the generative score that is manifested for the dance which uses Eshkar and Kaiser's extraordinary hand-drawn digital images of the dancers as projections onto the spatial-choreographic architecture. The digital data traces complement, ghost and echo the real dance. Here is what Gavin Bryars says about the music he composed:

BIPED was [...] one of the first new musical compositions commissioned by him since the death of John Cage in 1992 [...] I had worked with John in the late 1960's and his work had been a key factor in my decision to move away from improvised music towards composition. Indeed, seeing the Cunningham company in London in 1966 represented a key moment in my artistic development. The very first piece I saw was a solo called *Nocturne* [...] Merce wore a white costume, there was a white gauze behind which he danced, and pure bright white light on the gauze, behind it and in front of it, produced a stunning effect. In *BIPED*, just as, with the visual element, there is live dance and its digital shadow through the projected video animation (curiously, like the very first piece I saw, projected on to a front gauze), so I chose to have a form of *digital replication* within the music. The live instruments (electric guitar, cello, electric keyboard, acoustic double, violin and percussion) being reinforced by their electronic equivalents. The sampled material is played by members of my ensemble, who are also the live performers.⁸

What Bryars indicates in his composer's notes is the conceptual idea of replication which, in today's sonic terms of processing we would compare to sampling and real-time synthesis. The sound samples *re-generate* their own algorithmic patterns of evolution: the music is a kind of drone that hovers in

8 | See: www.gavinbryars.com/Pages/biped.html. Instrumentation: violin, cello, electric guitar, double bass, electric keyboard, pre-recorded tape.

the space of emergence – movement and sound playing off each other without necessarily knowing each other.

Gavin Bryars, with Merce Cunningham/Shelley Eshkar/Paul Kaiser: *BIPED*, 1999 (aural track).

Playing back the sampled recording, playing with refractions, however, also refers us to the generative articulations in Alvin Lucier's famous work *I am sitting in a room* (1969) in which he modulated thirty-two cycles of repetition of his voice recordings played back through the resonant architecture and material properties of a room, re-recording each playback over loudspeakers and thus processing the spatial vibrations in the »sonorous envelope« (LaBelle 2007: 130). I have always considered Lucier's work very inspirational for my own compositional understanding of audible choreographies that are not stochastic as much as they are flowing from and with the resonances and sound movement the dancers (and their sounding costumes) create with the spatial environs.

Reflecting back on Cage's chance operations and his collaborations with Cunningham, many dance works today pose the question, from a visual-music standpoint, how does the viewer construct meaning when image and sound relationships are orchestrated by chance operations or by an interactivity not based on simple cause-and-effect mapping (as we noted in the earlier example of *Tipping Point*)? How do chance operations or randomizing algorithms change the interpretation of sound and image and affect awareness of visual and aural elements? What experience is derived from such an approach of accidental simultaneity?

In contemporary sonic art theory, I find of particular interest some of the approaches to expanded sound practices, sound objects, acoustic ecologies and interculturalisms, psychoacoustics, affects and sensations, as they might inform choreographic design and somatic and biocontrol practices. Seth Kim-Cohen (2009), for example, favors a conceptual (non-cochlear) framework, and while examining Pierre Schaeffer's *musique concrète*, John Cage's compositional non-intentionality, and blues and rock recordings (Muddy Waters' *I feel like going home*; Bob Dylan's mad version of *Like A Rolling Stone*) in great detail, he faults them for being too concerned with perceptual properties (sound-in-itself). Kim-Cohen is less interested in sonic materiality than in the sound-out-of-itself (there is no *Ohrenblick*), indifferent to medium, expanded out to social, institutional or contextual situations of the work.

I take it that this implies understanding sound (form) as relational, as a spreading out from material form, as post-medial. Salomé Voegelin, in *Listening to Noise and Silence*, favors a more phenomenological, perceptual approach, being with the heard, becoming immersed in the auditory object (her ontology of sound capitalizes on the observation that sounds can be emitted from objects

in ways that their look, or visual attributes, cannot – thus attention becomes focused on the formless auditory which, through the listener, is produced). »The sonic thing«, Voegelin argues, »is not perspectival [...] neither formed nor deformed, but formless unless it meets the hearing body. In that sense the thing is intersubjective and only starts to sound in the ears of the thing that is the body encountering it.« (2010: 19) The hearing body is responsible, in other words, for forming *the aural object*.

DD Dorvillier: *No Change, or, »freedom is a psycho-kinetic skill«*, 2004 (visual track).

Anthropologist Tim Ingold, on the other hand – reflecting on the terms visibility, visual, audibility, aural – reminds us that the *environment* we experience and move around in cannot be sliced up along the lines of the sensory pathways by which we enter into it. In ordinary perceptual practice, all sensory registers overlap. Ingold then proposes that just as light is another way of saying »I can see«, so sound is another way of saying »I can hear« (2011: 137-138). Sound is not *what* we hear; neither light nor sound can, strictly speaking, be an *object* of our perception. Sound is what we hear in. Ingold now invokes the notion of the weather, suggesting that weather (or atmosphere) is fundamental to perception.

We do not perceive it; we perceive in it. We do not touch the wind, but touch in it; we do not see sunshine, but see in it; we do not hear rain, but hear in it. Thus wind, sunshine and rain, experienced as feeling, light and sound are essential to our capacities, respectively, to touch, to see and to hear. In order to understand the phenomenon of sound (as indeed those of light and feeling), we should therefore turn our attention skywards, to the realm of the birds [...]. The sky [...] is not an object of perception any more than sound is. It is not the thing we see. It is rather luminosity itself. But it is sonority too. (Ingold 2011: 138)

The notion of the atmosphere, using the sky, will guide my concluding examples of contemporary dance and installations – »choreographic objects«, as William Forsythe has called the latter.⁹ The questions I want to raise refer to the interactional scores and generative programming of sound, to the use of the »soundstage«, and of sounding wearables. So finally I will also refer briefly to my own work with the DAP-Lab and our *design-in-motion* practice,¹⁰ to what we

9 | See, for example, the dialogue between Forsythe and Mario Kramer in the exhibition catalog for *William Forsythe: The Fact of Matter*, Museum for Moderne Kunst Frankfurt (17 October 2015 - 13 March 2016).

10 | Wearable designs and sounding garments for DAP-Lab productions are created by fashion designer Michèle Danjoux who co-directs the company with me. See www.danssansjoux.org.

have learnt about sound of costumes worn in performance, investigating wearable textures and the manner in which they enable or constrain movement, touch body, extend body and physical shape into sounding instruments.

My proposition is that such wearables can amplify movement and performance environment through audible or inaudible dimensions; they can be touched and felt in the atmosphere; they can alter relations between performer and audience too, shifting focus on other sensory processes, and thus disorganize what we perhaps assume to be the main choreographic form or impact (visually affective movement). I begin by showing two brief examples of the *soundstage* – DD Dorvillier, Saburo Teshigawara – which demonstrate both logical and illogical relations between the visual and the aural as well as the difficulty of *reading* barely imaginable sensorial demands derived from function or use of material objects in the sonorous space (such as the fallen microphone stands, cables and buckets in Dorvillier's piece, or the heavily electronically processed and distorted sound of breaking glass in Teshigawara's solo), followed by a soundstage which combines dance with the acoustic and electronic live improvisation by musicians (Akram Khan's *Until the Lions*) who compose spatial intensities in the sense in which Iannis Xenakis worked with sonic architecture (for example the Montréal *Polytope* or the Philips Pavilion).

DD Dorvillier: *No Change, or, »freedom is a psycho-kinetic skill«,* 2004 (audio track), Saburo Teshigawara: *Glass Tooth*, 2008 (visual track).

Khan's deconstructions and transformations of the codified languages of *katak* are well known. He now inspires a younger generation of artists to politicize their ethnic or racial bodies and to push the creative potentials of their multi-corporeally trained instruments, blurring all boundaries between codes and abstractions, between classical, modern and contemporary performance idioms. Khan has refined his aesthetic of collaboration, paying much attention to formal experimentation with multiple movement vocabularies as well as cross-cultural musical languages which I would consider very challenging, especially in light of recent critiques of world music, appropriation, and casual intercultural tokenism (the »schizophonic mimicry« analyzed by Tan 2012: 209), which, for example in the late »world series« productions of Pina Bausch led to quite deplorable, sentimental profanations of her choreography.

Akram Khan: *Until the Lions*, 2015 (visual and audio track).

The dance in *Until the Lions* is a trio, Khan partnering Ching-Ying Chien and Christine Joy Ritter – but the work features seven performers. The choral presence of four instrumental and vocal musicians, placed in four corners of the circular stage (inside the massive London Roundhouse where I saw the piece)

and moving around the circle as well, is substantial for the overall choreographic, kinetic and aural atmospheres of the work. The sensual atmospheres are noticeable even before the dance. Upon entering the space a fine sawmill dust seems to hang in an air suffused with a strange scent. In front of us, the round stage designed by Tim Yip resembles the stub of a 30-foot-wide tree-trunk, sawn through just above the ground. There are cracks, which later open upward to create uneven *mesa*. Through them mist trickles up, filling our eyes, while Michael Hulls' lighting culls out luminous enclosures and clearings.

The clearing is for the gods that populate this dance drama, for the ancestors on the other side of the ritual curtain. The production is an adaptation of *Until the Lions: Echoes from the Mahabharata*, a retelling in verse of the *Mahabharata* by Karthika Nair, which is here danced in an elliptical manner practically impossible to follow if one does not know the tale. Khan chooses the story of Amba, a princess abducted from her wedding ceremony by the powerful and obdurately celibate Prince Bheeshma, who then takes revenge on him by killing herself and assuming the form of a male warrior. Taiwanese dancer Chien portrays the fierce Amba, Khan takes on the role of Bheeshma while Ritter (who trained at the Palucca School in Dresden) is a kind of animal presence, skittering and slithering around the clearing with intensity, a possessed figure of destiny who becomes the spirit driving Amba's revenge.



Fig. 2: Ching-Ying Chien, Akram Khan in *Until The Lions*, The Roundhouse, 2016. Photo: Jean Louis Fernandez.

Throughout the performance, bathed in a shimmering, sand-colored light on the giant tree trunk, I envision the world as a living organism and a continuum,

my eyes travel with an inner and outer wind, as if rustlings and movements of plants, trees, things, landscapes, living beings, kangaroos galloping on all fours and supernatural actors combined into a collective whole. The trunk, with rings and bark, becomes an amplified platform for a strangely erotic mating ritual during which Chien and Khan embody Amba's attempt to persuade Bheeshma to marry her. She reaches to touch him and grasp him, yet he alternates between pushing her off and reciprocating, increasingly confused by transactions that we can also imagine as internal transformations. Later, the trunk becomes the battleground on which Amba, Bheeshma and their invisible armies rage against each other.

After this bracingly physical, multisensorial dance, it is the sounding that lingers prominently. A low electronic drone score by Vincenzo Lamagna underlines the action, with whirlwind percussion from Yaron Engler and impressive vocals from Sohini Alam and David Azurza who prowl the perimeter of the stage environment, joining the action from time to time. Most importantly, they use the audiophonic tree trunk (contact-miked) itself as percussion instrument, making it as ritually threatening and earthly as the pounding rhythms in Stravinsky's *Sacre du Printemps*. Or they shift into lyrical, melancholy registers with soft Gaelic love songs (accompanied by guitarist Lamagna). Azurza surprises us with his remarkable countertenor voice, enriching the piece's gender fluidity. I cannot describe the sound of this dancework any closer, but it touches me on levels of experience that exceed the semantic or syntactical dimensions of the epic narrative or the movement enunciations. This is no longer *kathak*, but distributed choreosonics, diversified assemblage and vibrant matter through the interactions between dancers, musicians, voices and reverberant architecture – in an expanded embodiment.

5. CHOREOSONIC ENSOUNDING: ATMOSPHERES OF CHOREOGRAPHIC DESIGN

Dap-Lab: *metakimosphere no. 3*, 2016 (audio track).

Metakimosphere is the title of the DAP-Lab's immersive dance installations (2015-2016), composed to test the idea how performance materials produce atmospheres, and how habitats can be redesigned into sounding wearables. The first instantiation happened in London in early 2015. All I remember now is a poem sent to me by an audience member a few weeks later. It evoked an audience member's tactile-auditory reaction, and encouraged us to build a new prototype based on this resonance.



Fig. 3: *metakimosphere no.3*, created by DAP-Lab at *Metabody Forum* 2016, London, Artaud Performance Center. The four partially visible dancers are Vanessa Michielon, Elizabeth Sutherland, Azzie McCutcheon, Yoko Ishiguro. Photo: Michèle Danjoux/Johannes Birringer.

And resonance is a form of memory, inside our bodily architectures. *Kimosphere* (kinetic atmosphere) I imagine to be a *Gefühlsraum*, a choreographic environment created for dancers and visitors exploring/sensing a very intimate sonic space which envelops and acts as a suspended transparent veil and encumbrance – hiding-revealing, allowing light and *graphic writing* to flow through, affording variable tactile orientations, colors, tones, glissandi, scents, shapes, positions, and sensations, affecting bodies forming a single-body inside a cocoon-like gauze texture or multiple-bodies that become discombobulated. Later, one would perhaps remember traces left on the body, interior and peripheral sensations, curvilinear, intestinal tremors.

But first I remember the breath ... this small sound coming from within, a tiny speaker attached to fibres near the floor. How to think such a wearable architecture – gauze that spreads out across the floors, breathes, a wall at the other end that moves towards us, changing color and responding to our behavior, the audience huddled around or walking, watching how the dancer in the origami dress unfolds and folds back her body as the wall begins to move and make strange motoric noises? The motors must be what moves the pulleys and strings over there ... we here, on the other side of the marionette space?



Fig. 4: Blind audience member touches dancer's costume in *metakimosphere no. 3*, 2016. Photo: Michèle Danjoux/Johannes Birringer.



Fig. 5: Aggeliki Margetti dancing with Beakhand speaker (left), *metakimosphere no. 3*. Photo: Michèle Danjoux/Johannes Birringer.

Then I remember the white gauze beginning to heave; vaguely one makes out contours of a body that is crouched, slowly, slowly rising until the fabric of body's elongated dress stretches all across, now a third dancer appears from nowhere, gently stepping through the crouched audience, with a hand that is like a bird's beak, and from the beakhand a voice of a shaman sounds out, a high pitched chant evoking spirits (in 한국어), I recall the guttural sounds of this (male) voice delicately transforming into gesture – the woman dancer now

becoming a shaman herself pointing her beak to the audience, jerking the hand backward and forward, slashing across air, while the body under the gauze has meanwhile stretched space. Tiny particles dance on the floor, activated by sensors that capture fleeting moments of 3D contours of the woman in origami dress. Of course there are cameras, sensor, the whole space is under capture ... Weathering and wearing, I sense slow space, and decelerated movement, we are caught somehow.

Then the shamanic voice seems suddenly dispersed, bouncing off walls and corners and slowly disappearing, like an airplane that withers off into far distance leaving behind only a soft, disintegrating vapor trail, sublimely simple telekinetic trace, of sensations that had been spatially discharged.

6. TRANSCEIVERS

Dap-Lab: *metakimosphere*, no. 3, 2016 (audio track).

DAP-Lab: *for the time being*, 2014.

TatlinTower Headdress and RedMicro duet (audio and visual tracks).

Our dancers are trancers, they can receive sound and they can transmit sound. Rehearsal questions: How do you move with a costume equipped with sensors, microphones, and small speakers? How do you control your sensoritized wearable outfit in order to generate sound or manipulate projection in environment? How is your awareness, attunement to the environment affected? And thus how do you participate – share with audience your own intimate perceptual relation to environmental data, invite them to sense being ensounded through generative processes programmed into the virtual spectrum of possibilities, this ecology of becoming?

From the point of view of composition, the kimospheres we compose are neither based on scripts (text) nor scores (music). They are choreographies in the making, versions of manifestations developed through a longer process of laboratory research. Choreography here means intra-action with the folds of real-time processes and materials, during which performers enact scenes in a *nervous* environment of currents (where capture systems or microphones acuate data transmission via sensors worn on the body or in the costume).

Composing hybrid creatures might be the best way to describe our design work. We are interested in teasing out various strands of inspiration (usually we depart from a motif or a question that drives the research, and this question could originate from an image or a historical incident or a technical proposition as much as it might be derived from an object, a poem, a sound phenomenon or a garment concept). In earlier phases of my work (the late 1980s and 1990s), I sought to link film to movement, combining silent moving images with cho-

reography. With the growing availability of software to assist in the programming of performance systems, I began to work with the concept of interactivity. I now feel that interactive systems are too limiting. We break away from them to explore noise, cracked media, malfunctions, and dis-alignments.

Historically minded, and aware of earlier analog visions for a »new theatre of the scientific age« (Brecht), remembering Artaud, Gertrude Stein, Schlemmer, the Russian Constructivists, Brazilian tropicalia and Japanese butoh, we look towards new concatenations of movement and landscape plays, new old investigations of body weather and the sensory engagement of the environment. Working in Tokyo led to a collaborative dance installation, *UKIYO [Moveable Worlds]*, and Michèle Danjoux fashioned a series of ever more complex garments that were partly interactive (digital sensors woven into the fabric of the costumes) and also partly organic, for example accelerometers stitched into a dress made of real Ginkgo leaves we collected in Tokyo.



Fig. 6: Katsura Isobe dancing the 3D creation scene in Ginkgo LeavesDress in *UKIYO*, Sadler's Wells, London 2010. Photo: DAP-Lab.

The dancers move in close proximity to the audience who witness close-up the manipulations of sound generated by the costumes. The environment thus becomes a sounding space, intermingling noise created by dancers and their expanded bodily instruments (microsound) with music spatialized through the amplification system. The DAP-Lab sound artists work closely with the performers and Danjoux's sound-generating costumes in a polyphonic ensemble of improvised choreography. The latter slowly evolved over many months, in dialogue with the Japanese butoh dancers who came with us on the European tour, inspiring fine-tuned attention to the metamorphic qualities of subtle movement, somatic resonance, the slow motion of interspaces, vibrations, morpho-

logies (what Sandra Fraleigh (2010: 12) describes as »alchemy in motion«). The alchemy, for me, lies in the particular consciousness of wearing the sortized garments, moving them in a sensographical way that encourages the audience to *listen* to motion.



Fig. 7: Helenna Ren with TatlinRadioTower Headdress (incorporating motors, rotating spring, piezo [for the conversion of mechanical to electrical data], receiver and transmitter) and black box (housing amplifier, speaker & battery pack) wears productivist white suit and manipulates sensor. Design and concept by Michèle Danjoux. *for the time being*, London 2012. Photo: Brigitt Angst.

In a recent production, *for the time being*, we take this concentration on sonic morphology to the next level. Using the 1913 futurist opera *Victory over the Sun* as our template, we challenged our ensemble to push the idea of *sounding garments* further, creating costumes that are like architectures in motion, geometric abstractions, small apparatuses. Following El Lissitzky's brilliant

re-drawings of Malevich's original designs for the fantastical *futurian* characters Kruchenykh and Khlebnikov created for the libretto, Danjoux built costumes which stimulate the dancers to invent actions or gestures that delineate a strangely hallucinatory poetics of noise, light projections and sonic irritations, onomatopoeia and zaum interventions beyond sense and yet sensory – an experiential Ganzfeld of synaesthetic events.

In other words, my proposition here relates to how movement creates audibilities, in the intersections of design and movement technology, and how design concepts can accentuate the dynamics of the weather, the choreographic using the sky.

For our dancers, the question then might become how to balance a Tatlin-RadioTower on the head, with a black box emitting radio noise held in front of the chest. How can hands gently bend the sensor that activates a spiral metal piece inside the tower? The dancer is transmitter actuating the metal spiral in the tower which begins to spin; the crackling sound is picked up by microphones and sent to the speaker box. The microsounds are also picked up by onstage mics that send the input to a software that samples, then processes amplified transmissions until the stage begins to reverberate.



Fig. 8: Helenna Ren as *Gravedigger* in sarcophagus garment made of heat resistant material stencilled with enamel spray paint, protective sunhat, glasses and gloves. Design and concept by Michèle Danjoux. *for the time being*, London 2012. Photo: Brigitt Angst.

After the eclipse of light (the sun), darkness descends, and we created a solo for a dancer wearing solar lights that began to glow in the dark. During the

construction of the new world in Act II, Yoko Ishiguro, Aggeliki Margeti and Ross Jennings join Helenna Ren and Vanessa Michielon in a choreographic polyphony. There is no prerecorded music: all of the sound is created live on stage and processed in real-time, and this is a clear example of *audible choreography*. Motion becomes sound, the animation of the garments is generative. Amidst the hieroglyphics of the non-objective geometric abstractions on stage, the dancers in white overalls – in an early scene we developed in remembrance of the Fukushima disaster – examine the space like engineers measuring radiation in the electromagnetic spectrum. In the final scene, the sounding of the space is a choreographic effect produced through the articulation of kinetic costumes and inter-actions between the dancer wearing the ChestplateSoundDress (emitting sound using proximity sensors on guitar strings) and the dancer wearing Red-MicroDress, a dress with small microphone built into the shoulder pad. The wearers and receivers are also transceivers.

This transceiving duet implies treating spatial proximity as a generative open score, drawing attention to ways in which the performing bodies *wear* or articulate space and process environmental information in the sonorous envelope. Intelligent-costume design, mobile media transmission and computation thus combine to create processual architectures that can ceaselessly readjust relationships between collected data in real-time. Performance within such a *Raumpartitur* (spatial score) involves subjective experiences of a continuously re-generating system, a virtual architecture of listening/composing through participating in the dynamic potentials of such a tactile theatre. Not everything will be heard (perceived), nor are all sources intelligible or knowable in an acousmatic sense. And this is of course the beauty of noise dance – it allows the ear body to become entangled in rough immersive synaesthetic experiences.

REFERENCES

- Chion, Michel (1990): *Audio-Vision: Sound on Screen* (trans. Claudia Gorbman), New York: Columbia University Press.
- Fraleigh, Sandra Horton (2010): *Butoh: Metamorphic Dance and Global Alchemy*, Chicago, University of Illinois Press.
- Gaensheimer, Susanne/Kramer, Mario (eds.) (2015): *William Forsythe: The Fact of Matter*, Frankfurt: MMK Museum für Moderne Kunst.
- Garelick Rhonda. K. (2007): *Electric Salome: Loïe Fuller's Performance of Modernism*, Princeton: Princeton University Press.
- Hindson, Catherine (2015): Dancing on Top of the World: A Serpentine through Late Nineteenth-Century Entertainment, Fashion and Film, in: Marketa Uhlířová (ed.), *Birds of Paradise: Costume as Cinematic Spectacle*, Köln: König Books, pp. 65-77.

- Hugill, Andrew (2012): *Pataphysics: A Useless Guide*, Cambridge, MA: MIT Press.
- Ingold, Tim (2011): *Being Alive: Essays on Movement, Knowledge and Description*, London: Routledge.
- Jones, Caroline A. (ed.) (2006): *Sensorium: Embodied Experience, Technology, and Contemporary Art*, Cambridge, MA: MIT Press.
- Kim-Cohen, Seth (2009): *In the Blink of an Ear: Towards a Non-Cochlear Sonic Art*, London: Continuum.
- Krauss, Rosalind (1985): *The Originality of the Avant-garde and Other Modernist Myths*, Cambridge, MA: MIT Press.
- LaBelle, Brandon (2007): *Background Noise: Perspectives on Sound Art*, London: Continuum Press.
- Lista, Giovanni (1995): Loïe Fuller. Theatrographie, in: Jo-Anne Birnie Danzker (ed.), *Loïe Fuller. Getanzter Jugendstil*, München: Prestel, pp. 143-151.
- Loupe, Laurence (ed.) (1994): *Traces of Dance* (trans. Brian Holmes), Paris: Editions Dis Voir,
- Loupe, Laurence (2010): *Poetics of Contemporary Dance* (trans. Sally Gardner), Alton: Dance Books Ltd.
- Manco, Fabrizio (2016): *Ear Bodies: Acoustic Ecologies in Site-Contingent Performance*, unpublished PhD Thesis, University of Roehampton 2016.
- Nancy, Jean Luc (2007): *Listening* (transl. Charlotte Mandell), New York: Fordham University Press.
- Perec, George/Helmlé, Eugen (2001): *Die Maschine*, Blieskastel: Gollenstein Verlag.
- Szedy, Peter (2001): *Écoute, une histoire de nos oreilles*, Paris: Édition de Minuit.
- Tan, Marcus Cheng Chye (2012): *Acoustic Interculturalism: Listening to Performance*, Basingstoke: Palgrave Macmillan.
- Uhlirva, Marketa (ed.) (2015): *Birds of Paradise: Costume as Cinematic Spectacle*, Köln: König Books.
- Voegelin, Salome (2010): *Listening to Noise and Silence: Towards a Philosophy of Sound Art*, London: Continuum.