Shared sounds in detached movements: flautist identities inside the 'local-field' spaces*

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This article explores the spatial identities of the flautists in playing Kaija Saariaho's music with live electronics, particularly reverberation and harmonisation. The varying spatial position of the flautists are theorised mainly via two approaches: that of 'local/field' concepts by Simon Emmerson, and through the philosophy of narrative identity developed by Paul Ricoeur. The article investigates the flautists' experiences of control over the sound, and especially its most intimate form, direct control, by discussing the relationship between the choices of live flautist and the sound director. The sound result is constantly negotiated by several authorial activities, the contributions of which are closely overlapping and conversing with each other.

1. INTRODUCTION AND CONTEXT

Kaija Saariaho's instrumental music often includes electronic material, which can vary from a wide range of pre-recorded, modified or synthesised sounds to different kinds of reverberation and harmonisation. According to Saariaho herself, she uses reverberation mostly to reinforce 'weak' and 'transparent' instrumental textures (Barrière 1999), which are quite often the noisy and breathy sounds of the flute;[1] playing techniques include whispering, speaking or hissing into the flute.

The issue examined in this article is the embodied spatial identities of the flautists while playing Saariaho's music with live electronics, particularly reverberation and harmonisation. In considering flautists playing with microphones, loudspeakers and choices made by the sound director, the varying aspects of space and control emerge as central contexts of exploration. As primary data I will use interviews with flautists who have all premiered Saariaho's music. These are Petri Alanko, Anne Eirola, Mikael Helasvuo, Camilla Hoitenga and Eva Tigerstedt. All of these flautists spoke about their experiences of playing with electronics with very detailed references to specific works, scores and performances. The playing performance seemed to be constituted by several material and discursive agencies, including at least the sound director's contribution, microphone contact, loudspeaker positions, sound diffusion experiences, sound aesthetics and performance practices. Since the sound director's role was described as crucial by most flautists, I have also interviewed two sound directors, Kai Lassfolk and Juhani Liimatainen, who have carried out different sound engineering tasks for performances of Saariaho's music. All the interviews will be read in reference to the scores and available recordings[2] of Saariaho's music. As a flautist/academic I tend to listen to subtle changes of embouchure, air stream, oral cavity and breath pattern; both sound and interview speech are heard from the perspective of this situated listening. This also determines why just these works (and specific passages from them), these performances and, above all, these interview extracts are analysed. The purpose is to conduct a musician-centred analysis of certain very specific flautist spatialities. With this analysis stance it is possible to concentrate on almost unexplored research territory, the performer's perspective[3] of the performance, and the often overlooked nature of the collaboration between the instrumentalist and the sound director. The questions about the 'authorship' of the sound and about the performers' roles also tend to be much more multi-layered and complicated within live electronic music than may, at first sight (or first listening), be apparent.

The theoretical frame of the article is constituted from two directions. First, Simon Emmerson's theorising of live electronic music and especially of 'local/field' spaces offers a viable basis for exploration of the embodiments of live flautists. In his article '"Local/Field": towards a typology of live electronic music' Emmerson (1994a) approaches the questions of live and 'mixed' electroacoustic music by focusing on the different localities of the sound production. His

*I wish to thank Simon Emmerson for the inspiring discussions and many invaluable comments regarding this article during autumn term, 2003, at the City University, London.

[1]For example, in the works *Laconisme de l'aile* for solo flute with optional electronics (1982/1996), *Lichtbogen* for nine musicians and live electronics (1985–1986), *Gates* for flute, cello and harpsichord with optional electronics (1991), and *NoaNoa* for flute and electronics (1992).

[2]Studio recordings and concert recordings naturally represent two different documentations of playing. Although aware of this, I focus above all on the embodied flute playing mechanisms in my listening.

[3]This is also a study of the 'sonic self' (cf. Cumming 2000).

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'typology' construction is based on two fundamental presumptions: the centrality of the human performer in live electronic music (cf. also Emmerson 1998a, b; 2000) and the importance of perceivable cause/effect relationships in the sound. For Emmerson, 'local' sound includes clear causality (and intimacy) with respect to the action of the human performer, while 'field' is understood as 'any activity not localisable to the performer as source' (Emmerson 1994a: 31–2). Emmerson has also remarked that 'the local control by the human instrumentalist demands local point sources of sound: [. . .] loudspeakers in the close vicinity of the source'. He points out that the use of the central mixing console has produced two crucial losses for the live performer, namely the 'loss of substantial degree of loudness control' and the loss of 'exactness of place of origin' (*ibid.*: 32). While examining the 'humanist aesthetic' of live electronic music with clear distinctions of 'essentially human' and 'essentially environmental' metaphors, Emmerson explores the sound-production question mostly from the perspective of electroacoustic music research, which has often focused on sound and timbre aesthetics (e.g. Schaeffer 1966; Wishart 1986; Ten Hoopen 1994), sound perception and listening (e.g. Smalley 1986, 1996) and compositional techniques (e.g. Chadabe 1989[1983]; Risset 1989[1985]). However, as a composer-performer, Emmerson also draws on knowledge from the field of concert practices and experiences, where the theorising has both aesthetic and practical goals.

Emmerson's concepts are applicable to musician-centred analysis, where 'local' and 'field' can be used as concepts for the situatedness of the live performer in the sound environment within live electronic music. From the perspective of the live flautist, both the 'loss of substantial degree of loudness control' and the 'loss of exactness of place of origin' often emerge in Saariaho's music, particularly because of reverberation and harmonisation of relatively quiet and noisy flute sounds, respectively. For example, when the flautist is blowing almost inaudible whistle tones (soft overtones) at the end of *Laconisme de l'aile*, the sound director is controlling loudness level far from the actual air stream production. At the same time, the sound is no longer localised directly to the flautist's intimate embouchure control alone, but is distributed all over the environment. It is in this multi-dimensional distribution effect, controlled both from 'local' and from 'field', that the questions of the live flautist's identity become negotiated, above all, through the senses of control and space. But at this point, I think, it is time to introduce the second theoretical basis of this article, namely the conceptualisation of flautist identity.

For the philosopher Paul Ricoeur, the concept of self is a relation of relations, which is essentially incorporated within a specific, inner sense of time. In his book *Oneself as Another*, Ricoeur (1992) argues that to operationalise personal identity we must first distinguish two dimensions of identity. The *sameness* of a person is the perceivable being of the same day after day, with implications of 'what'. *Sameness* structures our relations to our habits, actions and to our 'character' itself. *Selfhood*, on the other hand, is the self-consistency of a person within the dimensions of 'who'. *Selfhood* expresses the layered sense of *permanence in time* in the subjective history of a life (*ibid.*: 113–25). In other words, *sameness* is something that constitutes self *through* being the same, and *selfhood* is something that remains the same *in spite of* changes (cf. Reagan 2002: 14–15). According to Ricoeur, *sameness* and s*elfhood* should be seen as overlapping aspects of personal identity which construct self-production through narrative acts (Ricoeur 1992: 140–3).

The embodied acts of playing also include a particular sense of time, with subtle implications for continuity and discontinuity of movements. Although losing immediate sense of control over the whole sound result, the musician can find him- or herself relocated and reconfigured in the sound spaces (cf. Emmerson 1994a). If we situate the idea of narrative identity in a negotiation with local/field theorisation, *sameness* can be understood as the arena of the 'local'; the control intimacy feels familiar precisely because of the years of practice, i.e. through embodied actions being the same. *Selfhood*, on the other hand, is articulated as the 'field', which includes occurrences, discontinuity and remote control. The sense of *selfhood* can be constituted in spite of these incoherent things, and especially within the overlappings of *sameness* and *selfhood*, with the discordant concordance (uncoherent coherency) of events (cf. Ricoeur 1992: 141).

The interesting point is the manner in which the relationship between 'local' and 'field' is experienced and operationalised by live flautists while performing Saariaho's music and what kinds of spatial identities local/field territories might render possible.

2. 'LOCAL' AND 'FIELD' SOUNDS, AND THE CONSTITUTION OF SELF

In Saariaho's works, *Laconisme de l'aile*, *Lichtbogen* and *Gates*, the flautist plays with live electronics, which usually includes reverberation and harmonisation. *Laconisme de l'aile* can be slightly reverberated all the time, but it also includes several strongly reverberated and harmonised sections with breathy sounds (e.g. at 11/2 [line/bar], 13/2–3, 19/2–3, 20/1–3, 21/1–4). The gradual continuums between different sound types (breathy, clear, over-pressured, etc.) are often emphasised by audible changes of electronics. In

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Lichtbogen the flautist plays C-flute, alto flute and piccolo, which all have different sound qualities while reverberated and harmonised, because the diverging sizes and materialities of flutes become markedly audible. The piece includes several sections, where flute sounds are particularly modified. For example, at bars 229–42 the ascending scales of the piccolo are harmonised (as are the string *glissandi*), and from bar 334 until the end of the piece the breathy sounds of the alto flute are greatly enhanced by changing harmonisation and quite strong reverberation. In *Gates*, reverberation is used all the time, but only the cello is harmonised. Again, the reverberation is most noticeable in the breathy sounds and phonemic whispers executed by the flautist. In general, Saariaho uses reverberation and harmonisation in flute music mostly to forcefully reorganise spatialities and the timbres of breathy sounds, which distinguishes her flute texture from more subtle, amplified uses of electronics in, for example, George Crumb's *Vox Balanae* for electric flute, electric cello and electric piano (1971), in Luigi Nono's *Quando Stanno Morendo* for four women's voices, bass flute, cello and live electronics (1982), or in Thea Musgrave's *Narcissus* for solo flute with digital delay (1988).

In the performances of *Laconisme de l'aile*, *Lichtbogen* and *Gates* the flautist plays with microphone(s), and the sound director adjusts the amount of reverberation and harmonisation as defined in the score. *NoaNoa* differs from the above-mentioned, since it includes both pre-recorded and live electronic material. The piece is a complex mixture of multiphonic live flute texture with sampled, synthesised, and modified flute sounds and whispers,[4] as well as different kinds of reverberation. The flautist triggers all the electronic material with a switch pedal (see 'Performance Data' in *NoaNoa* score, p. ii). The sound director is still needed, but he or she does not actively modify the sound during the performance.

The relationship between the flautist and the microphone is mostly determined in terms of the relationship between the flautist and the flute. Since a flautist holds the flute with both hands while playing, he or she cannot actually hold the microphone in the way that, for example, a singer can. While singers can incorporate the microphone quite organically with their singing body (cf. Chanan 1995: 128), flautists are already intertwined and incorporated with their flutes. However, works such as *Laconisme de l'aile*, *Gates* and *Lichtbogen*, which include reverberation and harmonisation adjusted from the sound director's desk, allow the flautist to approach the microphone in various ways that could be extensively used as playing techniques. Mikael Helasvuo found such potential of microphone approach in the poem recitation section at the beginning of *Laconisme de l'aile*, noting that 'if there is a microphone I can approach it in a different way, so that it [speech] would sound like it was growing, that it would be a little more speech' (IIIa:[5] 7). While approaching or moving away from the microphone, the flautist is actually adjusting his or her control over the reverberation and harmonisation. The flautist could, therefore, utilise separateness from the microphone in various ways, which of course the listeners will hear interlinked with the sound director's control.

3. BEING BREATHY

Laconisme de l'aile for solo flute (with optional electronics since 1996) includes several different breathy sound techniques and some notated actual inhales as well. At the time of the interviews, the flautist, Anne Eirola, who had premiered the piece in Freiburg 1982, was just in the middle of her first rehearsal of the electronic version. In the following discussion, her experiences of the use of reverberation and harmonisation seem to overlap closely with her local control mechanisms (e.g. embouchure) of breathy sounds:

> AE: [. . .] I probably don't have to try so much because somehow I feel that they [key clicks and breathy sounds] are audible from there [. . .]
>
> TR: So, would you say that you as a flautist could transfer your own responsibility a little there, to the desk of the sound director?
>
> AE: Well, I don't know, I think I still have the responsibility, but I think that I have some kind of support from in there [. . .] so the responsibility is maybe shared in a way. (IIa: 3)

When playing *Laconisme* with live electronics, Eirola's choices of playing movements are immediately imbued with the presence of another performer, the sound director, which means that her local control intimacy is adjusted – at least partly – from the field. For example, while executing the breathy sound which gradually changes to key clicks (a change indicated in the score by an arrow) (figure and sound example 1, 8/1), the pitches that Eirola plays are slightly modified by the sound director with the harmoniser (percentage markings in the score). The pitch changes are usually (in acoustic performance) very sensitively located in the embouchure adjustments of the flautist and it is a startling feeling when you hear pitch distortion which is controlled by someone beyond the blowing action. In this particular section (8/1) the

[4]One correction should be made. The pre-recorded whispers of *NoaNoa* are actually made by Saariaho's husband Jean-Baptiste Barrière, not by Xavier Chabot, as I claimed in Riikonen (2003).

[5]Numbers refer to transcriptions of interviews (see list following References).

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Figure 1. *Laconisme de l'aile*, 8/1 (line/bar). R and H indicate the amount of reverberation and harmonisation.

sound director adds and diminishes the amount of harmonisation while the flautist is executing the same pitches (E♭ and D in the latter half of the bar). This is why it seems that the responsibility of pitch determination is largely possessed by the sound director. However, Eirola tried to define accurately the responsibility of the sound result; she wanted to correct my expression 'transfer' of responsibility to 'share' of responsibility. By denying the thought of transferring responsibility of playing, she stresses the authorship and local control intimacy of *her* embodied flute sound as an essential source of the whole sound result, and this seems to create a kind of 'supportive' character for the sound director. Therefore, Eirola emphasises her sameness-identity, where intimate acts of playing are defined, executed, and mostly possessed by her through being the same.

Sound director Kai Lassfolk, who has performed *Laconisme de l'aile* several times (but not actually with Eirola), describes controlling the field sound of the piece:

> It is a question of the dramaturgy and the tension in that piece [. . .] you have to be that much of a musician in order to listen to that work and to decide where [. . .] in the piece [. . .] the sections demand strong effects [. . .] in a way you decide how the sound result will appear for the listeners, and in that sense you have the responsibility, but maybe it is somehow equal to [. . .] the role of the sound director in a rock concert where the contribution of the sound director is also dependent on the artist. (VIIa: 14)

While Eirola describes the flautist-specific details of playing, Lassfolk speaks about controlling the wholeness of the piece; different relationships between reverberation, harmonisation and acoustic flute sound create the sound image (cf. Wishart 1986) of the piece. It is noteworthy that Lassfolk discusses the loudspeaker sound as a relationship between him and the audience, and not between him and the flautist. He positions the act of responsibility between his choices and his dependence on the 'artist'. It is interesting to see how differently Lassfolk and Eirola define their responsibilities; while Lassfolk emphasises the wholeness-audience connection, Eirola's statement is based on the sensations of the flute-self combination. While Lassfolk's perspective is constituted at the field, as distributed everywhere, Eirola seems to concentrate on the level of intimate embodiment. However, the question of responsibility is negotiated in both Eirola's and Lassfolk's statements as a power, with mutually supporting and regulating roles (cf. Burkitt 1999: 28).

A close examination of the marked (composed) inhales and exhales of *Laconisme de l'aile*, as appearing at 20/1–3 (figure and sound example 2), opens up the negotiation between local/field controls, power and the intimate embodiment of the flautist's playing. As Lydia Goehr has remarked, the breathing of instrumentalists (and singers) is often dealt with as a simple expressive/physiological split (Goehr 1998: 119–20). When instruments are understood as 'extensions of bodies', and bodies as 'extensions of souls', the material qualities of instruments can be replaced by the 'musical' qualities (*ibid.*: 120–1). In considering Saariaho's flute music with electronics, the presence of reverberation seems to reconstitute the significance of all breathing during playing, as the following discussion of the inhale-exhale section (20/1–3) of *Laconisme de l'aile* with Anne Eirola indicates:

> AE: Yes, I think they [marked breaths] are effective, and then of course I have thought about those breath sounds



Figure 2. *Laconisme de l'aile*, 20/1–3.

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> which are not [notated] [. . .] so, between the phrases and [. . .] inside the phrases [. . .] I've been thinking how audible they are and whether it matters if they are audible.
>
> TR: Yeah, why would that matter?
>
> AE: What if it breaks down the wholeness, if you don't breath in a place where [. . .] the music is supposed to be breathing, or somehow [. . .] *what if some place becomes too breathless because of my own breathing.* (IIa: 7; italics TR)

I think Eirola's response is closely involved with questions of local controls, the causes of reverberation and the concepts of musical/physical breathings. Eirola is not at all worried about the audibility of the marked (composed) breaths, since she knows that they are strongly reverberated; she has explicitly stated that the reverberation 'helps' her and 'increases her confidence' through the audibility of the breathy sounds (IIa: 3). Notated breaths are 'in' the music, because they are executed with a specifically altered embouchure (by covering the lip plate), and lead seamlessly to the breathy sound and subsequently to clear sound. Unlike the unnotated breaths (executed with the conventional embouchure, quickly between blowing), their local control includes special actions which mark them as highly deliberate. In these circumstances the audible *unnotated breaths*, i.e. the trivial just-to-play-more breaths, might interrupt the line of carefully controlled spatial musicalisation of breath sounds in the flautist's identity: the inaudible becomes audible.

In a way, Eirola narrates her flautist identity through the difference between these two different types of breaths. What is crucial here is the (often) overwhelming loudspeaker sound as a field; the more the flautist's breaths (both unnotated and notated) are reverberated, the more the flautist's embodied identity and the intimate control mechanisms of playing are negotiated on the highly ambiguous borderline of local/field territories. Breaths through the flute (the composed breaths) reinforce as reverberated, first and foremost, the spatiality of the flute, but they also amplify the spatiality of the flautist's larynx and windpipe, especially in cases of rapidly executed inhale with a lot of air (cf. Wishart 1996: 275). Thus, inhaling and exhaling inhabit (as reverberated) a highly specific double position; they are *small* sounds (cf. Kahn 1999: 192) which become breath *effects* amplified by *both* the flute tube and reverberation. Eirola, therefore, seems to accept being *breathy* amplified, but not being *breathless* amplified. The breathy playing emphasises the 'musical' quality of the flute, unlike the breathless playing, which foregrounds the material requirements of flute playing: the indispensable act of breathing. Eirola's concern about generating 'too breathless' sounds somehow against 'the music', the composers's idea, also includes the threat of *not* being invisible (or inaudible) as performer (cf. Goehr 1998: 142). When reverberated, the exact place of origin of the breaths (the very inside of the body) becomes more audible and 'close' to the listeners, but not necessary to the flautist herself. I think that it is above all the removed-from-local-control experience which bothers Eirola here; as heard via the loudspeakers the breathlessness sounds immediately *there*, in the field. That could, in terms of the transparency ideal, form too intimate and 'close' a distance (cf. van Leeuwen 1999: 24) between performer and audience. The field-controlled breaths reconfigure the flautist's control over his or her spatial embodiment, which can produce 'discordancy' (cf. Ricoeur 1992: 141), the inner inconsistency between body movements and resultant sound.

4. BEING LOUD

There is quite often a tendency to make a distinction between the aesthetic, 'compositional use' of electronics (especially reverberation), and popular music's way of using electronics. This distinction is illustrated explicitly, for example, in the article by Giomi, Meacci and Schwoon (2003) about live electronics in the music of Luciano Berio. These writers argue that in Berio's music the amplification is not actually used to increase the loudness of the sound (as in rock concerts), but rather to 'modulate the natural acoustics of a space' (*ibid.*: 31). But isn't the increasing of the loudness expressly the modulation of the natural acoustic space? If we hear silent sounds, or even inaudible sounds (cf. Kahn 1999: 190–2; Nyman 1999: 92) by amplifying them, it is not only the acoustic space which is modulated, but the whole range of conventions and habits related to listening to sound. As Emmerson points out, the important thing is perhaps not the different divisions of labour while making sounds, but more what appears to be true to the listeners (Emmerson 1994a: 33). But what appears to be true to the performers?

Eva Tigerstedt speaks about loudness control while playing with reverberation:

> ET: When I think for example of playing amplified music composed by Saariaho, then playing loud is not so much under my responsibility any more, so instead I can play quite softly and think so that I just aim the sound at the microphone and not far away, and this actually removes the thing I don't have the colossal job of just trying to sound awfully loud, because doing that is easy, *somebody just turns the knob in there*, in principle [. . .]. I think that liberates an enormous amount of energy to think about more important things [laughs] while playing than just whether I'll be able to play awfully loud. (Vb: 9; italics TR)

This statement does not seem to agree with Giomi, Meacci and Schwoon's popular/art music distinction

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since, as a Western art-music performer, Tigerstedt simply enjoys being loud with a relatively soft instrumental sound. Tigerstedt does not suffer from losing the intimate volume control of her own playing; on the contrary, she is ready to renounce the need to blow with very rapid and forceful air pressure. Instead, she can change her playing spatiality radically and aim the air stream carefully to the closely located microphone. The noteworthy thing is that, in a way, Tigerstedt is simultaneously including and excluding the sound director from her playing; on the one hand, she is speaking about 'soft' playing at the microphone, and on the other she creates a distance from the sound director by referring to his or her knob-turning act 'there'. The sound director is now 'there', far away, where Tigerstedt would try to blow in order to play loud without electronics. In a way, Tigerstedt is assuming quite a large responsibility for the sound director, whose loudness control actions are executed from the field. Therefore, the microphone seems to be at the borderline of local and field (from the flautist's perspective), because it generates simultaneously both the flautist's and the sound director's actions. As both mediating and producing apparatus, the microphone can also be understood here as a technology of selfhood for the flautist.

Tigerstedt's aiming at the microphone is clearly audible in *Gates* (ODE CD 791–2), which includes several reverberated silently played sections. For example, at bars 110–115 (4'52"–4'59"[6]) (figure and sound example 3), the sounds of Tigerstedt's tongue, lips and breathing, the *grain* of her body (cf. Barthes 1977: 188), are audible, because she is whispering consonants and phonemes very close to the microphone. The reverberated, silently whispered prolonged 's' at bar 111 (4'54") highlights the different spatialities of the specific oral cavity of Tigerstedt. The hissing quality of the 's' contains the resonance of the edge of the flute's blowing hole only at the moment of attack, because Tigerstedt whispers the 's' with an emphasised attack. The invisible transition of the air stream location – from the front of the mouth to in between the teeth – becomes audible when reverberated. The whispered 'r' at bars 113–114 (4'59"), on the other hand, emphasises more the resonance of the flute, because a similarly pronounced 'r' directs the air stream evenly towards the edge of the flute's blowing hole. Therefore, the 'r' keeps sounding "*inside* the flute, unlike the whispered 's', which seems to emphasise the changing relationship between the lips, the lip-plate, the air stream directions and the resonances of the oral cavity.

The slightest adjustments of air stream directioning and changes of lip aperture become colossal events when reverberated, since the live flautist has lost both control of loudness and control of the exactness of place of origin (cf. Emmerson 1994a: 32). However, these 'losses' can actually produce a new boundary-blurring performer identity, which could be specifically based on the pleasure of ceding some of the control responsibility from oneself to someone else. Tigersted seems to stress both renunciatory and liberating elements of her field-controlled loudness, when she actually accepts being maker/made/participant of the sound. At the same time she also, in a way, accepts being the *material* of the sound, because the field-controlled loud sound is after all entirely a creation of the sound director. That is why Tigerstedt's narrative represents, I think, a quite different definition of loudness than, for example, the everyday life connotations of domination and power (cf. Schaffer 1977: 76–7; Truax 2001: 127).

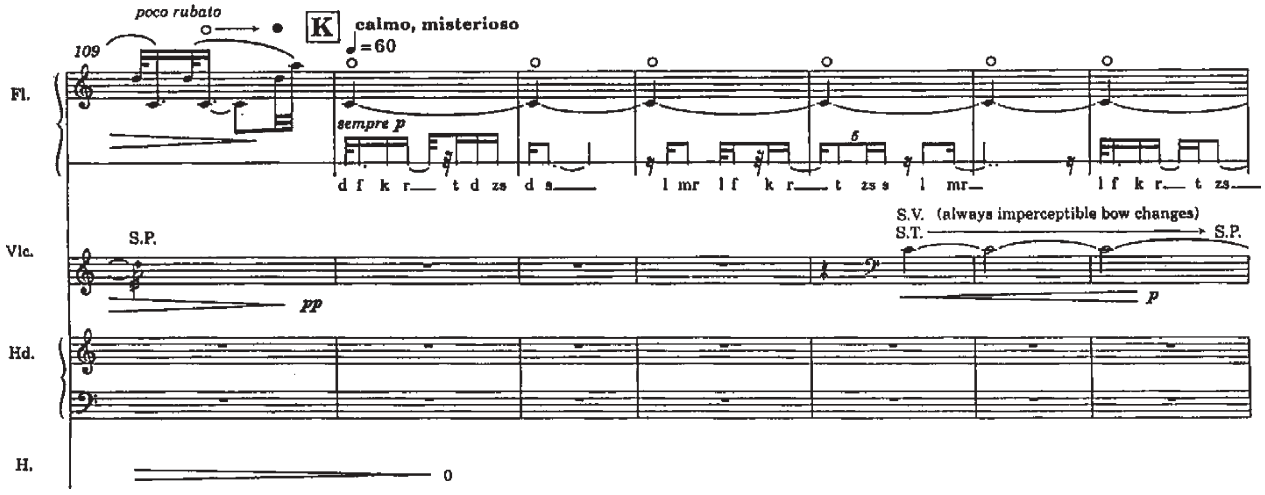


Figure 3. *Gates*, b. 110–115. Copyright © 1991 Edition Wilhelm Hansen Helsinki.

[6]Numbers refer to timings of recordings.

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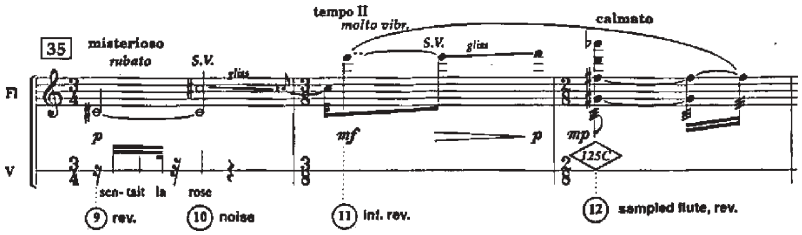


Figure 4. *NoaNoa*, b. 35–37.

5. BEING SEPARATED FROM ONE'S 'OWN' SOUND

In Riikonen (2003) I argued that, while regarding the electronic element of *NoaNoa* as being 'there' (*ibid.*: 114), flautist Petri Alanko quite obviously seems to regard himself as separate from the electronic material, and especially from the pre-recorded sections. What I now wish to do is to examine this sense of separateness more closely, particularly from the perspective of the collaborational spatial authorship of *NoaNoa*.

In the early performances of *NoaNoa*,[7] the sound director controlled all electronic material, including the pre-programmed sounds and the real-time reverberation. Sixty-three programme cues in nine minutes guaranteed a continuous presence of the sound director's choices in the sound result. The triad of flautist with microphone, the sound director and the loudspeakers is evident when Alanko describes his experiences of being controlled from the field:

> PA: In that way it is easier [than controlling the electronics oneself with the MIDI switch pedal] because you can concentrate on just playing, since I can't hear so much of what happens *there*, so in a way I don't, you know, react to it so much, the loudspeakers are away from me, I only have the little monitor, maybe [. . .] Usually *I just play and then the others handle the rest.* [. . .] You can't hear it [your own sound], and actually, I think, you don't have to hear it so much. (IIb: 7, 9; italics TR)

Because Alanko seems to treat even the pedal-triggering movements as an external part of his flute-playing, his local sameness-identity, he regards the heavily field-controlled electronic part as a comfortable playing situation, in a way as a liberation. The division of labour described (cf. Emmerson 1994a: 31) is very instrumentalist-centred in Alanko's statement ('playing'/'the rest') – with some resemblance to Tigerstedt's remarks – but on the other hand we must remember that Alanko has quite explicitly renounced being the autonomous soloist subject while performing *NoaNoa* by saying that 'what the sound director does behind his or her table [. . .] affects [the music] at least as much as I do' (IIa: 6) (cf. Riikonen 2003: 110). However, while describing playing with the sound director who adjusts the electronics, Alanko is generating interesting authorships which seem to be at least partially determined by the location of the loudspeakers. When the loudspeakers are 'away' from Alanko, his own sound image remains ambiguous for him, and this emphasises the embodied sense of playing before hearing. While concentrating on 'playing only', Alanko is actually reinforcing his flautist identity as the unique live source of sounds with his unique intimate local controls. His degree of reaction to the electronics, which is 'not so much', is the express result of being separated from *hearing* his 'own' sound. The sound director, on the other hand, can hear the sound result 'there', from the loudspeakers, and this creates his or her authorship of privileged controller of the whole sound. Alanko retains the authorship of the playing activity entirely with himself in a quite contradictory way; the activity of the field is acknowledged by arguing that it is not necessary to hear one's 'own' sound.

In Alanko's statement, local and field are strictly separated. Alanko describes a situation where two unconnected authors work on the same sound. While listening to *NoaNoa* (the radio recording with Alanko and Liimatainen), the separatedness is not, however, audible. For example, at bars 35–37 (figure and sound example 4), the sound director is supposed to synchronise four triggerings (circled numbers) in approximately ten seconds. It seems that in two particular places Alanko seems to pause in order to wait for the electronics. Firstly, after whispering 'sentait la' at bar 35, Alanko starts to pronounce the word 'rose' (1'46"), but he seems to hesitate about going on before the pre-programmed flute noise is audible. At bar 36 the situation is quite similar, only more subtle. The infinite reverberation does not start at exactly the beginning of the E, but slightly afterwards. Alanko changes his *molto vibrato*-sound to *senza vibrato* (S.V.) only after the audible reverberation, and after the *glissando* the sampled

[7] *NoaNoa* was premiered on 23 July 1992 in Darmstadt by flautist Camilla Hoitenga, with Kaija Saariaho and Jean-Baptiste Barrière running electronics. Soon after this, Petri Alanko gave the first performance in Finland with Saariaho, Barrière, Xavier Chabot and Juhani Liimatainen. On 28 September, Alanko and Liimatainen made radio a recording of *NoaNoa* at YLE (the Finnish Broadcasting Company) (see also Riikonen 2003: 110–11).

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flute effect and Alanko's multiphonic (at bar 37) sound indistinguishable. Besides the reverberation and sampled sounds, the minimal adjustments of tempo refer to other activity than that of the live flautist in the sound.

In my opinion, Alanko's statement seems to adopt a double stance, according to which the separatedness of hearing one's 'own' sound and unconnected intimate controls (live flautist's and sound director's) do not have to be mutually exclusive. Alanko's sameness-identity is overlapped by the presence of the field. The startling thing is that within this field-selfhood, i.e. being self in spite of the dislocation of one's 'own' sound, both the sound director and Alanko himself hear the flute sound in a way as *deboned*, without the intimate bone resonance (cf. Kahn 1999: 7). This sound shares, I think, the quality of the recorded sound, described by Douglas Kahn: '[t]he source is always generated with its microphones posed, spaces modulated, and networks played back, already marked' (Kahn 1995: 213). Alanko's flute sound is actually not his 'own', but is produced by several authorial practices: composer's pre-programming, sound director's choices and Alanko's air stream blowing act, which all encounter each other at the moment of sound diffusion.

6. BEING EXTENDED, OR, SOME 'MAYONNAISE'

Both sound directors interviewed – Kai Lassfolk and Juhani Liimatainen – have noted the highly instrumental use of reverberation in Saariaho's music. Liimatainen points out that 'Saariaho uses reverberation in a way as an instrument [. . .] most of all it continues the sound of the [live] instrument [. . .] which results in a player always producing an extremely long ending to the sound' (VIIa: 2), and Lassfolk says that 'with reverberation it has been possible to extend the sound realm of the instrument [the flute]' (VIa: 17). 'Long endings' and 'extended sound' both refer to the altered spatiality of playing, which means that while reverberated, the flautist's embodied identities are increasingly constituted in terms of extended instrumentality. Every single playing mechanism becomes spatialised far beyond the flautist's intimate control level, that is, at the sound director's desk.

Juhani Liimatainen describes the significance of reverberation from the perspective of the sound director:

> JL: [. . .] The reverberation as such is, you know, the mayonnaise of the sound director, when you need to have a better [sound] you put the reverberation on top of it [. . .] like the cook puts on the mayonnaise [. . .] after that you can use it instrumentally, which is to organise different spaces which have their own meanings, and to use these kinds of lengthenings [. . .] I mean those long [infinite] reverberations that Kaija uses, they don't have anything to do with reality [. . .] so they are not spaces any more, but specifically effects which are adopted for extraordinary use. (VIIa: 2)

Liimatainen's statement includes an interesting hierarchy of different types of reverberation, which also refer to the agencies used for reverberation. First, with the comic food metaphor, Liimatainen defines the basic function of reverberation as 'additional'. The power of 'mayonnaise' is in its supplementary quality: to exist it requires something that needs improvement. 'Mayonnaise' also has the character of 'dressing', when it can be used to transform different materials into completely new substances. The second type of reverberation, according to Liimatainen, extends the additional character of reverberation, when space organisation is used to create significant instrumental spatialities. Finally, the third type of reverberation, the extremely prolonged infinite reverberation, inhabits the space even beyond the space-concept itself; it becomes an 'effect'. The interesting thing here is that Liimatainen points out distinct agencies for the 'mayonnaise' and 'effect' aspects of using reverberation. He situates the 'mayonnaise' dimension in the sound director's realm and the 'effect' dimension in the composer's realm. The instrumental reverberation remains without such an unambiguous author. Instrumental reverberation is produced by the composer, and worked by the sound director in performance, while the live instrumentalist's contribution to the sound result is, of course, obvious. Since the instrumental use of reverberation includes, as Liimatainen remarks, spatiality modification, which refers particularly to time (lengthening), the player's personal treatment of the instrument determines to some extent the aspects of that spatiality. The instrumental reverberation is generated in between local and field, because both the instrumentalist and the sound director are affected by each other.

Liimatainen's reverberation typology can be discussed in relation to the statements of flautists. Mikael Helasvuo, for example, has described playing *Laconisme de l'aile* with reverberation by saying that '[it] becomes, you know, bigger, the piece, it becomes like a ball' (IIIb: 6). In Helasvuo's statement, the space obviously has subjectivity; the piece and the spatiality of a 'ball' are the same. Since Helasvuo initially equates the whole work with space, I consider his statement to include instrumental reverberation. *Laconisme de l'aile* becomes like a 'ball' expressly in Helasvuo's flautistic embodiment, by breathing, blowing and adjusting air pressure *with* electronics.

Camilla Hoitenga has also remarked on the instrumental use of reverberation in Saariaho's music, in *NoaNoa*. She has said that 'the feeling I get is actually [. . .] expanded space because my perception is

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[. . .] I'm listening bigger [. . .]. The feeling is more that I'm diving inside [. . .] something' (IVa: 5–6). The expanded space affects the flautist's identity through the spatiality of the flute, which brings field activity close to local. Hoitenga is playing inside an expanded space (field) with her extended flute (local), while 'diving' refers to the actions executed at the borderlines of these spatialities. The blurring of local and field controls in Hoitenga's playing has produced a new term, diving, which extends the playing movements into actions of adaptation, co-operation, relocation and dissolution. In Ricoeur's terms, the diving can be understood as the overlapping of *sameness* and *selfhood*.

Anne Eirola, for her part, has said of playing *Laconisme* that 'I didn't so much experience something like a beginning and ending, but it was one kind of [. . .] space in which all this happened' (IIb: 8). Eirola's statement has a certain resemblance to Liimatainen's space-beyond-space ('effect') reverberation. The interesting thing is that Eirola dissolves her embodied acts of beginning and ending in a way that emphasises the omnipresence of a specific reverberation space. If it all just 'happens' in a space without any distinct agencies and control mechanisms, the power of the space 'effect' becomes defined by Eirola in terms of disembodiment. It can be argued that, while renouncing the active authorship of the flute sound produced, Eirola is strongly emphasising the presence of field in her playing embodiment. The extremely extended time-space scale blurs the gestural contours of individual actions (i.e. playing attacks), when all activities become 'activities not localisable to the performer' (cf. Emmerson 1994a), and that includes various references to 'hyper-real' (cf. Field 2000: 45–6) soundscapes.

7. CONCLUSIONS: FLAUTIST IDENTITIES INSIDE LOCAL-FIELD CONTINUUMS

The presence of a live performer on the stage does not necessarily mean that the audience automatically regards him or her as a sound source. For example, after I performed Saariaho's *Laconisme de l'aile* with electronics in an electroacoustic concert in the autumn of 2003 at City University, London, one postgraduate student composer asked me: 'Did the speech come from the tape?' (the piece begins with a reverberated poem recitation section, which turns gradually into flute playing). Although I was speaking, my voice was actually born in the field; it was partly detached from the spatiality of my vocal cords. In this student composer's listening experience the disposition of 'acousmatic dislocations' (cf. Emmerson 1994b: 95) had been complemented by a visual dislocation: the assumed lip synchronising. This question seemed to crystallise the significance of the audience's and the live perfomer's highly divergent embodied experiences of the sound, and further, it actually reveals the multifaceted ontology of the reverberated sound.

The exploring of flautist identities with the concepts of local and field concentrates the attention on the flute sound's embodied practices. The flautist produces the flute sound in a controlled intimacy with the flute and the locations of reverberation or harmonisation in this controlled intimacy can be various. The losses of 'exact place of origin' and 'substantial degree of loudness control' (Emmerson 1994a: 32) do not necessarily produce an unpleasant alienation effect for the live performer. The flautists interviewed seemed to treat electronics and the operating agencies behind it – the sound director, and, perhaps the composer – quite flexibly and with multilayered meanings. They narrated their playing experiences in terms of breathiness, loudness, being separate from one's 'own' sound, liberation, responsibility and extension. Such often naturalised binary oppositions as leader/led, dominance/subordination, control/uncontrol, responsibility/freedom and beginning/ending were repeatedly challenged in flautists' narratives. Local and field activities did not become settled in mutually exclusive oppositions, either. On the contrary, some flautists described specific sensations of both extension and detachment of the sound, where local and field controls were generating the embodied spatialities within each other, in a specific spatial continuum. The flautists thus defined and redefined the overlapping structures of *sameness* and *selfhood* in terms of occurrence, altered spatialities and control.

REFERENCES

Barrière, J.-B. 1999. Spectra. In *PRISMA CD-ROM. The Musical World of Kaija Saariaho*. Porvoo: WSOY.

Barthes, R. 1977. The grain of the voice [Le grain de la voix] (trans. Stephen Heath). In *Image Music Text*, pp. 179–89. London: Fontana Press.

Burkitt, I. 1999. *Bodies of Thought. Embodiment, Identity & Modernity*. London: Sage Publications.

Chadabe, J. 1989(1983). Interactive composing: an overview. In C. Roads (ed.) *The Machine Music. Selected Writings from Computer Music Journal*, pp. 143–8. Cambridge, MA: MIT Press.

Chadabe, J. 1997. *Electric Sound. The Past and Promise of Electronic Music*. New Jersey: Prentice-Hall.

Chanan, M. 1995. *Repeated Takes. A Short History of Recording and Its Effects on Music*. London: Verso.

Cumming, N. 2000. *The Sonic Self. Musical Subjectivity and Signification*. Indiana: The University of Indiana Press.

Emmerson, S. 1994a. 'Local/Field': towards a typology of live electronic music. *Proc. of the Int. Computer Music Conf. 1994*, pp. 31–4. San Francisco: International Computer Music Association.

Emmerson, S. 1994b. 'Live' versus 'real-time'. *Contemporary Music Review* **10**(2): 95–101.

https://doi.org/10.1017/S1355771804000421 Published online by Cambridge University Press

Emmerson, S. 1998a. Acoustic/electroacoustic: the relationship with instruments. *Journal of New Music Research* **27**(1–2): 146–74.
Emmerson, S. 1998b. Aural landscape: musical space. *Organised Sound* **3**(2): 135–40.
Emmerson, S. 2000. 'Losing touch?': the human performer and electronics. In S. Emmerson (ed.) *Music, Electronic Media and Culture*. Aldershot, Hampshire: Ashgate.
Field, A. 2000. Simulation and reality. In S. Emmerson (ed.) *Music, Electronic Media and Culture*, pp. 36–55. Aldershot, Hampshire: Ashgate.
Giomi, F., Meacci, D., and Schwoon, K. 2003. Live electronics in Luciano Berio's music. *Computer Music Journal* **27**(2): pp. 30–46.
Goehr, L. 1998. *The Quest for Voice. Music, Politics, and the Limits of Philosophy*. Oxford: Clarendon Press.
Kahn, D. 1995. Track organology. In S. Penn (ed.) *Critical Issues in Electronic Media*, pp. 205–17. New York: State University of New York Press.
Kahn, D. 1999. *Noise Water Meat. A History of Sound in the Arts*. Cambridge, MA: MIT Press.
Van Leeuwen, T. 1999. *Speech, Music, Sound*. Basingstoke: Macmillan Press Ltd.
Nyman, M. 1999. *Experimental Music. Cage and Beyond*, Second Edition. Cambridge: Cambridge University Press.
Reagan, C. E. 2002. Personal identity. In R. A. Cohen and J. L. Marsh (eds.) *Ricoeur as Another. The Ethics of Subjectivity*, pp. 3–31. Albany: State University of New York Press.
Ricoeur, P. 1992. *Oneself as Another*, trans. K. Blamey. Chicago and London: University of Chicago Press.
Riikonen, T. 2003. Shaken or stirred – virtual reverberation spaces and transformative gender identities in Kaija Saariaho's *NoaNoa* for flute and electronics. *Organised Sound* **8**(1): 109–15.
Risset, C. 1989(1985). Computer music experiments 1964– . . . In C. Roads (ed.) *The Machine Music. Selected Writings from Computer Music Journal*, pp. 66–74. Cambridge, MA: MIT Press.
Schaeffer, P. 1966. *Traité des objets musicaux*. Paris: Presses Universitaires de France.
Schafer, M. R. 1977. *The Soundscape. Our Sonic Environment and the Tuning of the World*. Rochester, VT: Destiny Books.
Smalley, D. 1986. Spectro-morphology and structuring processes. In S. Emmerson (ed.) *The Language of Electroacoustic Music*, pp. 61–93. Basingstoke: Macmillan.
Smalley, D. 1996. The listening imagination: listening in the electroacoustic era. *Contemporary Music Review* **13**(2): 77–107.
Ten Hoopen, C. 1994. Issues in timbre and perception. *Contemporary Music Review* **10**(2): 66–71.
Truax, B. 2001. *Acoustic Communication*, Second Edition. Connecticut, London: Ablex Publishing.
Wishart, T. 1986. Sound symbols and landscapes. In S. Emmerson (ed.) *The Language of Electroacoustic Music*. Basingstoke: Macmillan.
Wishart, T. 1996. *On Sonic Art*, ed. S. Emmerson. London: Harwood Academic Publishers.

INTERVIEWS

(Interviews marked with an asterisk were carried out in Finnish; quotations are given in my translation.)
Ia. Interview with Petri Alanko. 24.1.2001. Helsinki. Interviewer: Taina Riikonen.*
Ib. Interview with Petri Alanko. 6.8.2002. Uusikaupunki. Interviewer: Taina Riikonen.*
IIa. Interview with Anne Eirola.14.3.2001.Turku. Interviewer: Taina Riikonen.*
IIb. Interview with Anne Eirola. 4.2.2002.Turku. Interviewer: Taina Riikonen.*
IIIa. Interview with Mikael Helasvuo. 24.1.2001. Helsinki. Interviewer: Taina Riikonen.*
IIIb. Interview with Mikael Helasvuo. 6.6.2002. Helsinki. Interviewer: Taina Riikonen.*
IVa. Interview with Camilla Hoitenga. 6.7.1998. Savonlinna. Interviewer: Taina Riikonen.
IVb. Interview with Camilla Hoitenga. 9.5.1999. Cologne. Interviewer: Taina Riikonen.
IVc. Interview with Camilla Hoitenga. 12.10.2001. Bryssel. Interviewer: Taina Riikonen.
IVd. Interview with Camilla Hoitenga. 27.1.2002. Turku. Interviewer: Taina Riikonen.
Va. Interview with Eva Tigerstedt.24.1.2001. Helsinki. Interviewer: Taina Riikonen.*
Vb. Interview with Eva Tigerstedt. 22.4.2002. Helsinki. Interviewer: Taina Riikonen.*
VIa. Interview with Kai Lassfolk. 27.5.2003. Helsinki. Interviewer: Taina Riikonen.*
VIIa. Interview with Juhani Liimatainen. 10.6.2003. Helsinki. Interviewer: Taina Riikonen.*
VIIIa. Interview with Kaija Saariaho. 17.12.1998. Paris. Interviewer: Taina Riikonen.*

SCORES

Laconisme de l'aile for solo flute. 1982 [optional electronics since 1996]. Hämeenlinna: Jasemusiikki Oy.
Gates for flute, cello, harpsichord and optional electronics. 1991. Copenhagen: Wilhelm Hansen.
NoaNoa for flute and electronics. 1992. London: Chestermusic.

RECORDINGS

Laconisme de l'aile performed by Taina Riikonen, flute and Kai Lassfolk, sound direction. Unpublished live recording. 15.4.2003.
Kaija Saariaho. Maa ballet. Music in seven scenes. 1992. Ondine ODE CD 791–2.
NoaNoa performed by Petri Alanko, flute and Juhani Liimatainen, sound direction. Radio recording 28.9.1992 (broadcast 10.1.1996). YLE (the Finnish Broadcasting Company).

https://doi.org/10.1017/S1355771804000421 Published online by Cambridge University Press