

Constructing Continuity

Early Developments in Kaija Saariaho's Compositional Practice

by Nathan Cobb

When Kaija Saariaho first began working with IRCAM's *Chant* program in 1982, her aim was explicit: to create by computational means an extremely smooth and extended transitional space that exceeded the capabilities of human performers. The resulting composition, *Vers le blanc* (1982, for tape), is described by Saariaho as evocative of a "voix humaine éternelle" in which timbral manipulations of synthesized phonemes and a linear transformation from one harmony to another occupies the whole of the piece's fifteen minutes.¹ Saariaho would spend much of the 1980s developing methods for writing continuous parametric "interpolations," usually realized with the aid of newly developed techniques at the Institut de Recherche et de Coordination Acoustique/Musique (IRCAM), the Groupe de Recherches Musicales (GRM), and the Finnish Radio Experimental Studio (YLE). However, materials in the Kaija Saariaho Collection suggest that the extremes of continuity were of great interest to the composer even before she had access to these technological means. Because interpolation processes are closely linked to some of Saariaho's most persistent and characteristic aesthetic ideals (a quality of "smoothness," blurring the distinction between harmony and timbre, spectral manipulation, etc.), an understanding of their original impulse is important for how we conceive of her compositional development in even the broadest terms. One piece in particular, *Sah den Vögeln* (1981, for soprano, ensemble, and live electronics), written during her studies in Freiburg im Breisgau with Brian Ferneyhough (b. 1943), appears to have been an important testing ground for some of the compositional strategies that she would later employ in the context of her more well-known electronic and electroacoustic works of the 1980s and 1990s.

1 Kaija Saariaho, "Timbre et harmonie," in *Le Passage des frontières*, ed. Stéphane Roth (Paris: Éditions MF, 2013), p. 99. For an in-depth analysis of *Vers le blanc's* realization, see Landon Morrison, "Encoding Post-Spectral Sound: Kaija Saariaho's Early Electronic Music at IRCAM, 1982–87," *Music Theory Online* 27, no. 3 (2021), doi: 10.30535/mt.27.3.10. See also Landon Morrison, "Reassembling Kaija Saariaho's *Vers le blanc* (1982)," *Mitteilungen der Paul Sacher Stiftung*, no. 33 (April 2020), pp. 37–44.

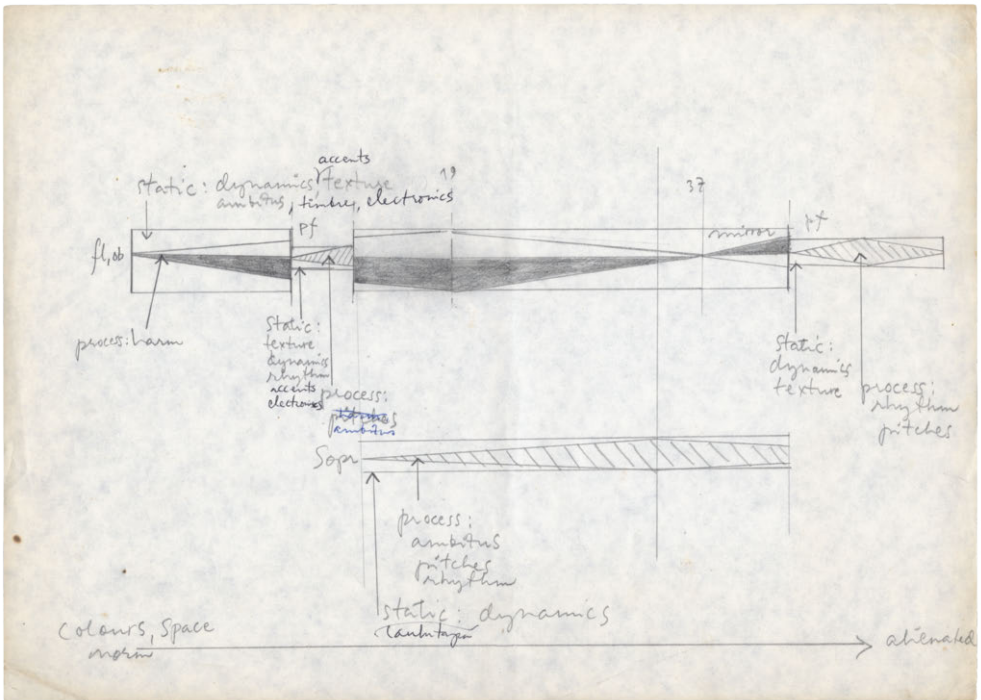


Plate 1: Kaija Saariaho, draft of formal graph for *Sah den Vögeln* (Kaija Saariaho Collection, PSS).

Two aspects of *Sah den Vögeln* point, in very different ways, toward Saariaho’s mature compositional practice: an employment of extremely smooth harmonic progressions and an engagement with post-serial techniques of organization. As revealed in a partial formal graph for this piece (Plate 1), Saariaho designed *Sah den Vögeln* as a series of relatively independent sections in which some musical parameters are fixed and others are subject to processes of transformation.² A series of drafts in the archival materials for this piece, all titled “Obsessions,” reveal that five specific sections are formally significant due to how they foreground static rather than dynamic parameters.³ Below her draft for the first of these Obsession sections (for solo piano, corresponding to mm. 10 and 39 of the published score), Saariaho sketches a harmonic progression that will be used in many of the subsequent Obsessions (Plate 2a). Above the staff she makes a note about how the piano content has been developed: “pf [piano forte]: matrix

2 A version of this graph was later published as Figure 2 in her “Timbre et harmonie” article (see note 1), p. 89.

3 English text, such as “Obsession,” occurs fairly often in the preparatory materials for *Sah den Vögeln*, possibly because Saariaho intended to share some of these documents in Ferneyhough’s composition studio.

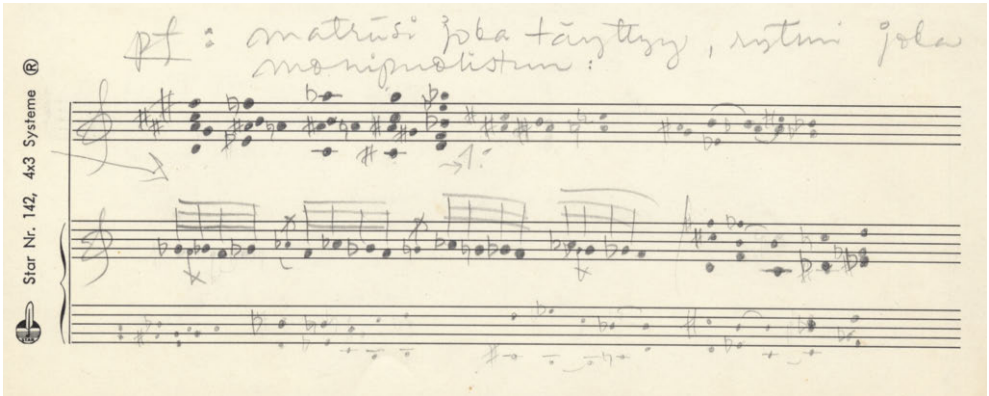


Plate 2a: Kaija Saariaho, *Sah den Vögeln*, detail of sketch for piano “Obsessions” (Kaija Saariaho Collection, PSS).

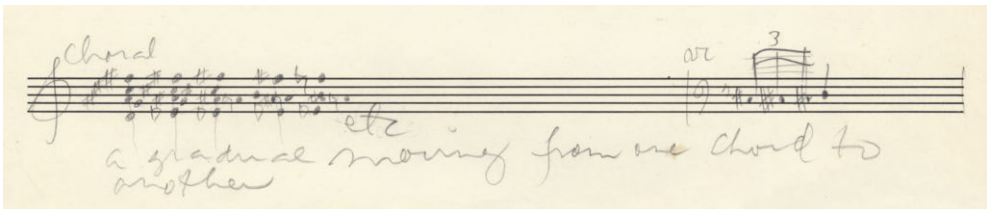


Plate 2b: Kaija Saariaho, *Sah den Vögeln*, detail of sketch for piano “Obsessions” (Kaija Saariaho Collection, PSS).

that fills, rhythm that diversifies.”⁴ I will return to this note momentarily, but for now what is notable about this harmonic progression is how it applies a series of symmetrical operations in order to transform one chord into the next: transitioning from the first to second chord, for example, involves inward-directed movement of all voices, with outer voices moving by half-step and inner voices moving by whole step. The pitch A#4 is held invariant throughout the entire progression, acting as the axis of symmetry around which the other voices move. The operations are contrived such that the final chord is a near-perfect enharmonic reinterpretation of the first, except that the inner voices G4–C#5 are now a whole step further away from the A# axis at F4–E♭5.

In a closely related document, Saariaho demonstrates, step by step, how the chord progression of *Plate 2a* is derived through a proto-interpolatory process that she describes as “a gradual moving from one chord to another” (*Plate 2b*). In this sketch, the changes from the first chord to the second of *Plate 2a* are isolated and applied from the bottom up, with the final movement being the half-step descent from F#5 to F5 in the top voice. By indi-

4 “pf: matriisi joka täyttyy, rytmi joka monipuolistun.”



Plate 3: Kaija Saariaho, *Sah den Vögeln*, detail of rhythm sketch for piano, mm. 133–49 (Kaija Saariaho Collection, PSS).

cating with “etc.” that this process could hypothetically be carried out indefinitely, Saariaho appears to suggest that the entire five-chord progression might be generated through a similar series of incremental changes. While these intermediary chords are not directly present in the published score, very similar progressions are used throughout Saariaho’s works of the early 1980s in a variety of electronic and electroacoustic contexts, making this document an important harbinger of the interpolation processes that she will soon develop with the aid of computer software.⁵

Returning to Saariaho’s note in *Plate 2a*, we find an indication of part of her early compositional practice that has received significantly less scholarly attention: her developing relationship with post-serial methods of organization. The rather poetic allusion to a “matrix that fills,” it turns out, is actually a very concrete reference to the quasi-serial methods of rhythmic organization that Saariaho employed in composing many of the “Obsession” sections of *Sah den Vögeln*. For example, below a draft of the first half of the fourth Obsession (mm. 133–40 of the published score, piano only), Saariaho sketches out a system for generating the rhythmic values that will

5 Compare, for example, this gradual harmonic transformation with one that Saariaho creates with the *Formes* program for *Jardin Secret I* (1985, for tape); Saariaho, “Timbre et harmonie” (see note 1), p. 109.

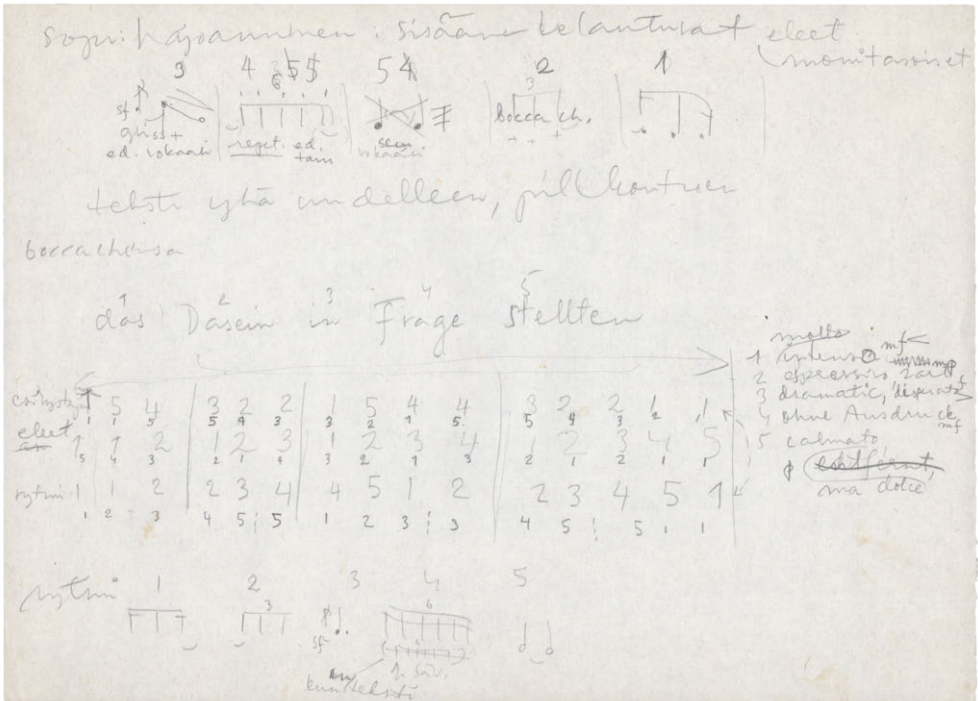


Plate 4: Kaija Saariaho, *Sah den Vögeln*, sketch for first refrain, mm. 95–103 (Kaija Saariaho Collection, PSS).

extend to the end of the passage (Plate 3). She begins by creating an abstract sequence of numbers 1 through 5 that can then be used to permute a collection of five corresponding rhythm cells. Beginning with a single value (1), she incrementally increases the content of each group of numbers until there are five values in the group and then reverses the process from five back to one; these two processes are divided by a heavy vertical line in Plate 3. This linear process of accumulation and reduction is contrasted with a cyclical process that determines the content of each rhythmic group: beginning with 1 for the first group, each subsequent group begins with the last number of the previous group and then rotates through the numbers 1 to 5 until it contains the appropriate number of values. The collection of two-voiced rhythm cells – corresponding to the pianist’s left and right hands – are then combined with this series to generate the rhythmic content of the passage.⁶

The same numeric sequence shows up periodically throughout the archival documents for *Sah den Vögeln*, but perhaps the most striking instance

6 Note that, following a process of revision, what Saariaho labels as cells 5 and 6 in this sketch actually correlates to cells 4 and 5 in the final score.

appears in a sketch for the conclusion of the first refrain (*Plate 4*). In this sketch, Saariaho correlates independent musical parameters with different series of numbers: the first half of the series already described is associated with rhythm (*rytmi*), the retrograde of this series is correlated with expressive marking (*esitystapa*), and a new series is associated with articulation (*eleet*).⁷ The result is a matrix-like collection of abstract numeric series that can be applied in a systematic fashion to generate musical material. Significantly, while Saariaho does in fact realize this abstract model in the form of a notated passage (found elsewhere in the archival documents), this musical content is not incorporated into the final version of the piece.

One reason that *Sah den Vögeln* is important to Saariaho's compositional development therefore lies in how it reflects a creative engagement with serial techniques and, in some cases, a dissatisfaction with the results. She articulates the cause for this dissatisfaction in an interview with Pierre Michel:

A Freiburg [in Ferneyhough's studio], les compositeurs expliquaient leurs musiques, en montrant des constructions très compliquées, des permutations, des structures cachées, et à un certain moment j'ai commencé à en avoir vraiment assez [...] et j'ai eu de plus en plus la conviction que la musique était faite pour être écoutée, pas pour être étudiée sur le papier.⁸

While Saariaho's subsequent music certainly does prioritize perceptibility, the influence of the serial techniques learned in the studios of Paavo Heininen, Ferneyhough, and Klaus Huber linger nonetheless: throughout the 1980s she continues to employ complex "parametric networks" in order to maintain strict control over the temporal development of musical material and she continues to apply abstract models to concrete musical structures at various formal levels.⁹ Even matrices continue to be used, albeit in altered form as the lists of values that define the endpoints of Saariaho's complex "circular" interpolation processes, or via spectral expansion and contraction in her so-called "stretching-matrix."¹⁰

The extent to which Saariaho's mature compositional style is inflected by post-serial techniques of organization has yet to be fully explored. Nevertheless, it is clear from the archival materials of *Sah den Vögeln* and from

7 The text of this passage, "das Dasein in Frage stellen," is also correlated with the numbers 1–5, but is not assigned a series.

8 Kaija Saariaho, "Entretien avec Kaija Saariaho," interviewed by Pierre Michel, *Les Cahiers de l'Ircam* (Paris: IRCAM, 1994), p. 9.

9 Any number of pieces from Saariaho's oeuvre could be raised as examples of this latter strategy, but two relatively straightforward instances are her application of the numbers 1–7 to generate relationships at the level of phrase, texture, and formal duration in both *Maa* (1991, dance music in seven parts) and *Lonh* (1996, for female voice and electronics).

10 Kaija Saariaho, "Shaping a compositional network with computer," in *Proceedings of the International Computer Music Conference* (Ann Arbor, MI: Michigan Publishing, 1984), pp. 163–65.

Saariaho's own writings on her compositional practice that the influence of Heininen, Ferneyhough, Huber, and Finnish streams of post-serialism should not be glossed over.¹¹ Furthermore, even as research continues to be developed on the role of IRCAM's computer programs in Saariaho's burgeoning idiolect, it remains to be seen how her own aesthetic philosophy was brought into reciprocity with these technologies, shaping them as they shaped her compositional practice in turn.¹² While many threads of influence and praxis must still be untangled, Saariaho's *Sah den Vögeln* reveals a composer with clear aesthetic priorities and artistic vision – of one who is still searching for her means of realization.

11 For more on serial and post-serial practices in Finland, see Tim Howell, *After Sibelius: Studies in Finnish Music* (Aldershot: Ashgate, 2006).

12 For an analysis of the role of technology in two specific pieces by Saariaho, see Landon Morrison, "On the Horizon of Digital Technics in Kaija Saariaho's *IO* and *Nymphéa*," *Archival Notes* 7 (forthcoming).