

OpenMusic and SuperVP in Balænoptera

Maximilian Bernhard für MASP, 01.02.2024

Electronic sound creation in Balænoptera for bass clarinet, electronic sounds, and live electronics

Fabio De Sanctis De Benedictis

THE OM COMPOSER'S BOOK, Volume 3

"On March 19th, 2013 a fin whale was beached south of Livorno. As, I suppose, in recent times many Italians and perhaps Europeans – surely I – may feel confused like that cetacean, this was the pretext to begin to plan Balænoptera, a quadraphonic composition for bass clarinet, electronic sounds, and live electronics."

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Balænoptera

[↳ Wikipedia zur Gattung](#)

Balænoptera

↳ zum Stück

- 2015
- **Fabio de Sanctis de Benedictis**, von dem **High Musical Studies Institute "Pietro Mascagni"**
- für Bassklarinetten (Carlo Failli), elektronische Klänge, und live Elektronik

Balænoptera

- Metrum → 4/4
- Tempo → 60 BPM
- ↳ 1 Sekunde pro Schlag → Länge des Stücks entspricht Schlägen
- Spatialisierung → Quadrophonisch

Electronic sound creation in Balænoptera

"The present paper is focused on the use of OpenMusic to generate electronic sounds, or Computer Generated Sounds as expressed by David Cope [2]."

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Electronic sound creation in **Balænoptera**

↳ Tools

- **OpenMusic** → Komposition & Klanggenerierung
- mit **(OM) SuperVP Library** → Audioverarbeitung
- **CataRT** → Grainsynthese
- **Max/MSP** → für live Elektronik

Aufbau

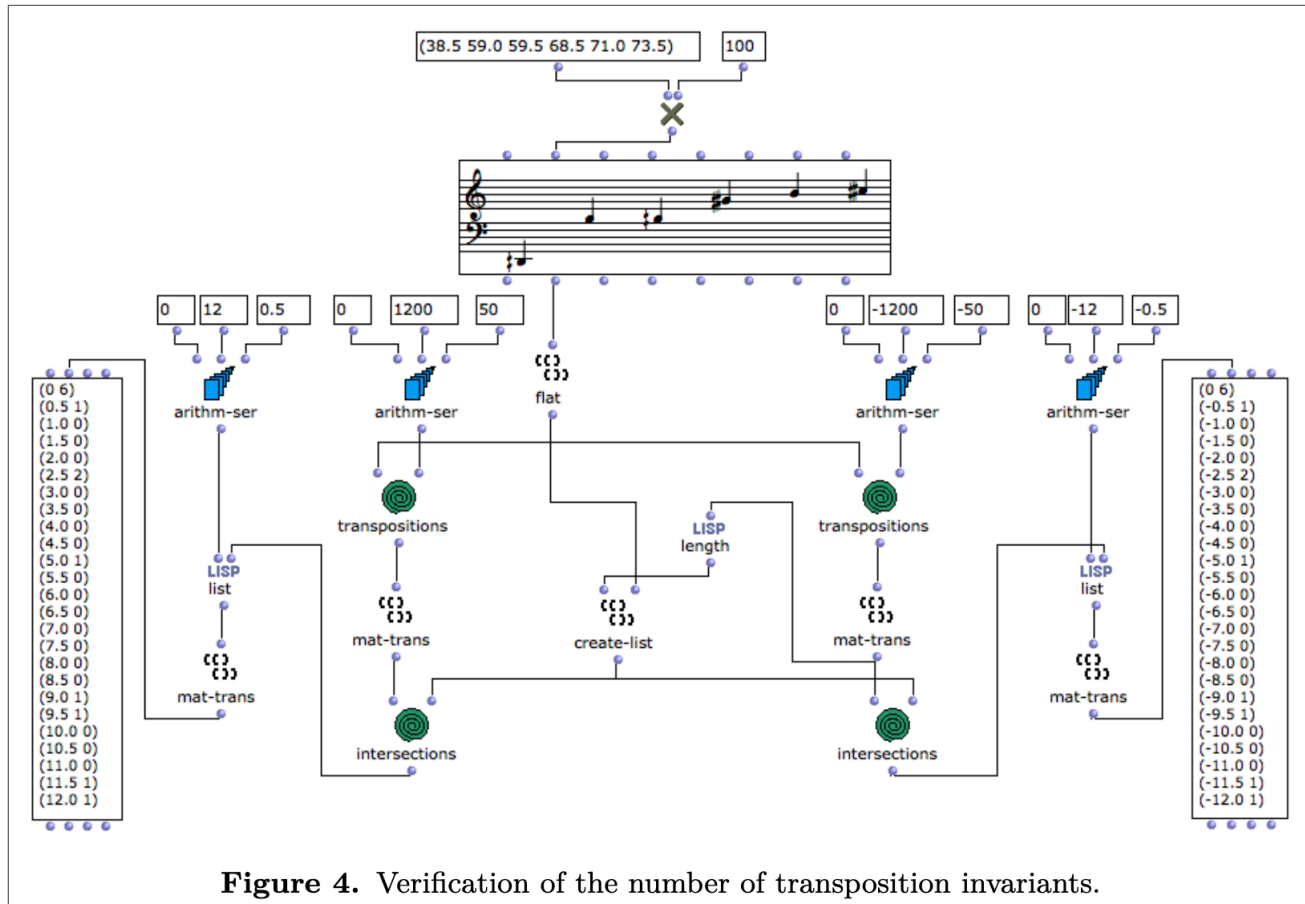
1. → (0'–1', mm. 0–15): Introduction.
1. → (1'–2', mm. 16–30): More melodic part for bass clarinet.
2. → (2'–4', mm. 31–60): Reprise of material from first section in bass clarinet part, electronic sounds created by cross-synthesis of whale sounds and bass clarinet multiphonics.
6. → (4'–10'):
 1. → (4'–4'45", mm. 61–72;): Addition of granulation effect, increase of tension.
 1. → (4'45"–5'30", mm. 73–84a⁵): More dramatic; quarter tones are not used in bass clarinet part, contrary to previous sections; first introduction of arpeggio figures in bass clarinet part.
 2. → (5'30"–7', mm. 84b–106): Continuation of preceding tension, but gradually decreasing; stabilisation of arpeggio figures and arc figures in bass clarinet part, with corresponding rapid circular movements in electronic sounds.
 1. → (7'–7'45", mm. 107–117): *Idem*, with additional stretched sounds.
 1. → (7'45"–8'30", mm. 118–129): Continuation of previous processes and synthetic recapitulation of bass clarinet sounds from part 1.
 2. → (8'30"–10', mm. 130–end): Final duet between bass clarinet and whale sounds; return of quarter tones in bass clarinet part; no live electronics, only slightly reverberated whale sounds.

1. Abschnitt

1. Low bass clarinet B \flat , stretched to 1', mixed with unfiltered key noise.
2. Low bass clarinet B \flat , stretched to 1', mixed with the three filtered key noise sounds described above.
3. Sound created by improvising with the mouse in the CATART descriptor space.
4. The previous sound (3), reversed.

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2. Abschnitt



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3. Abschnitt

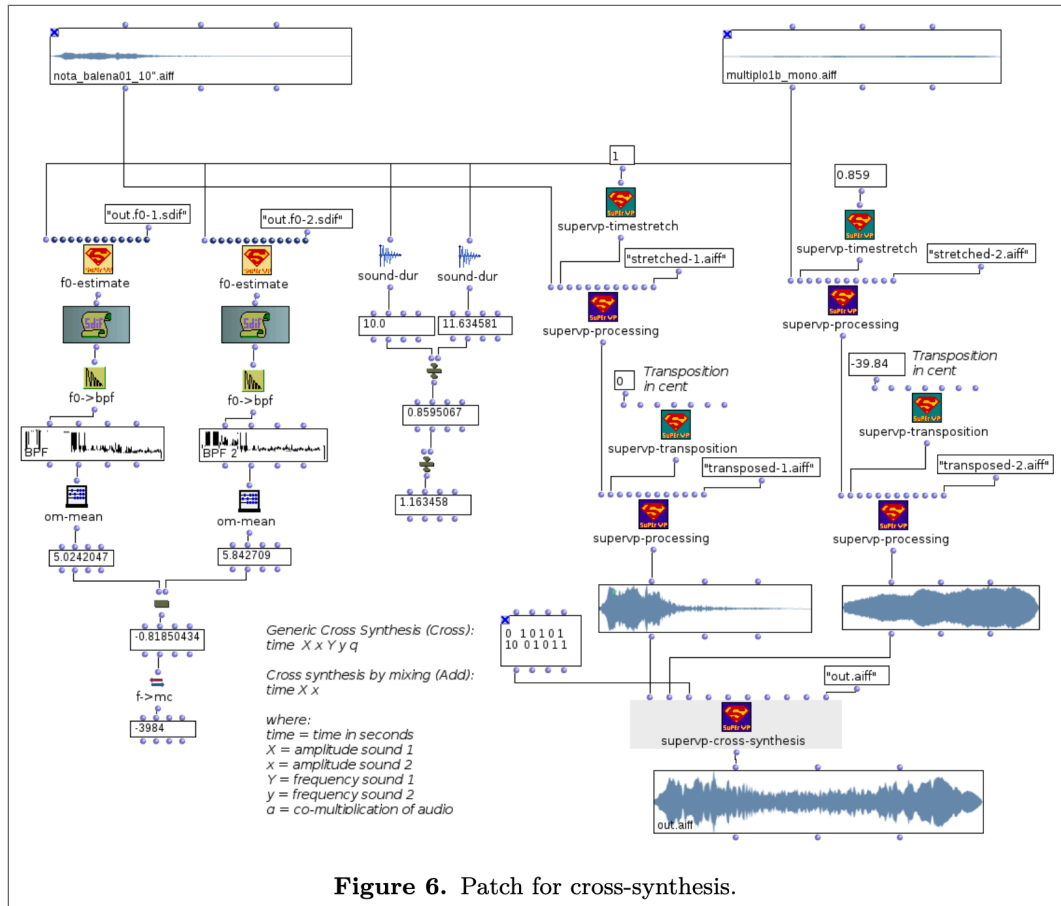


Figure 6. Patch for cross-synthesis.

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4. Abschnitt

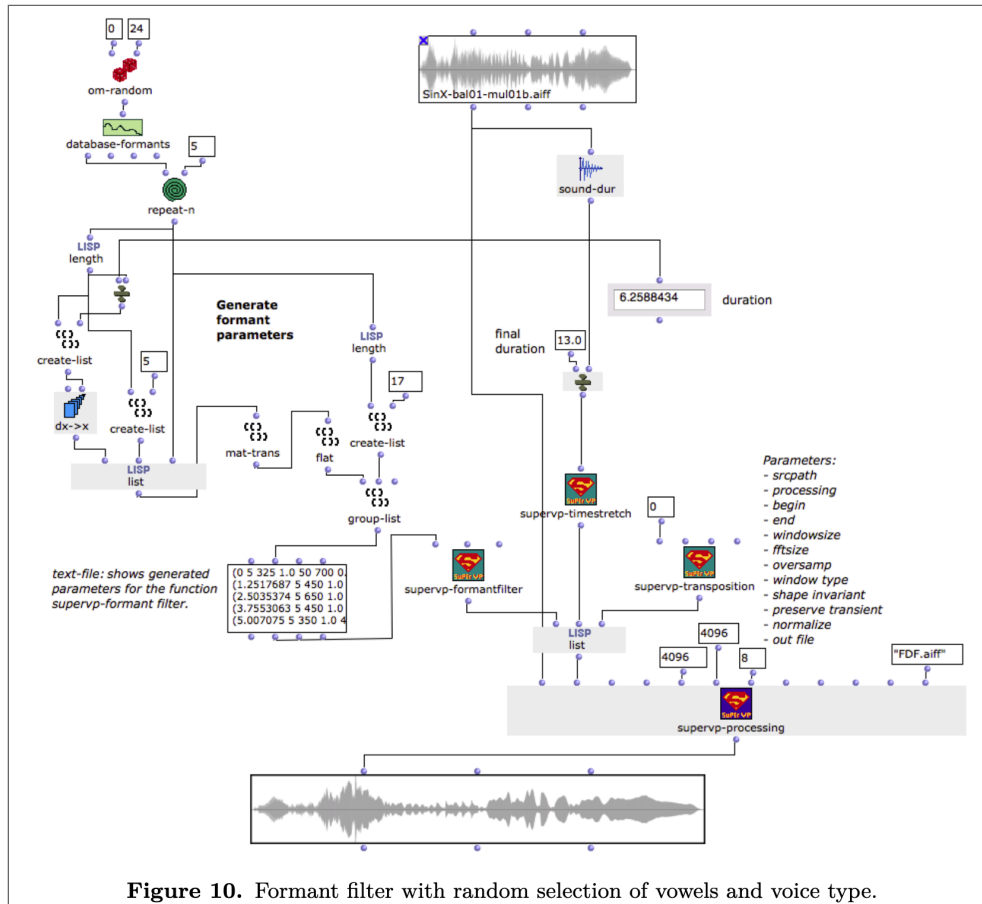
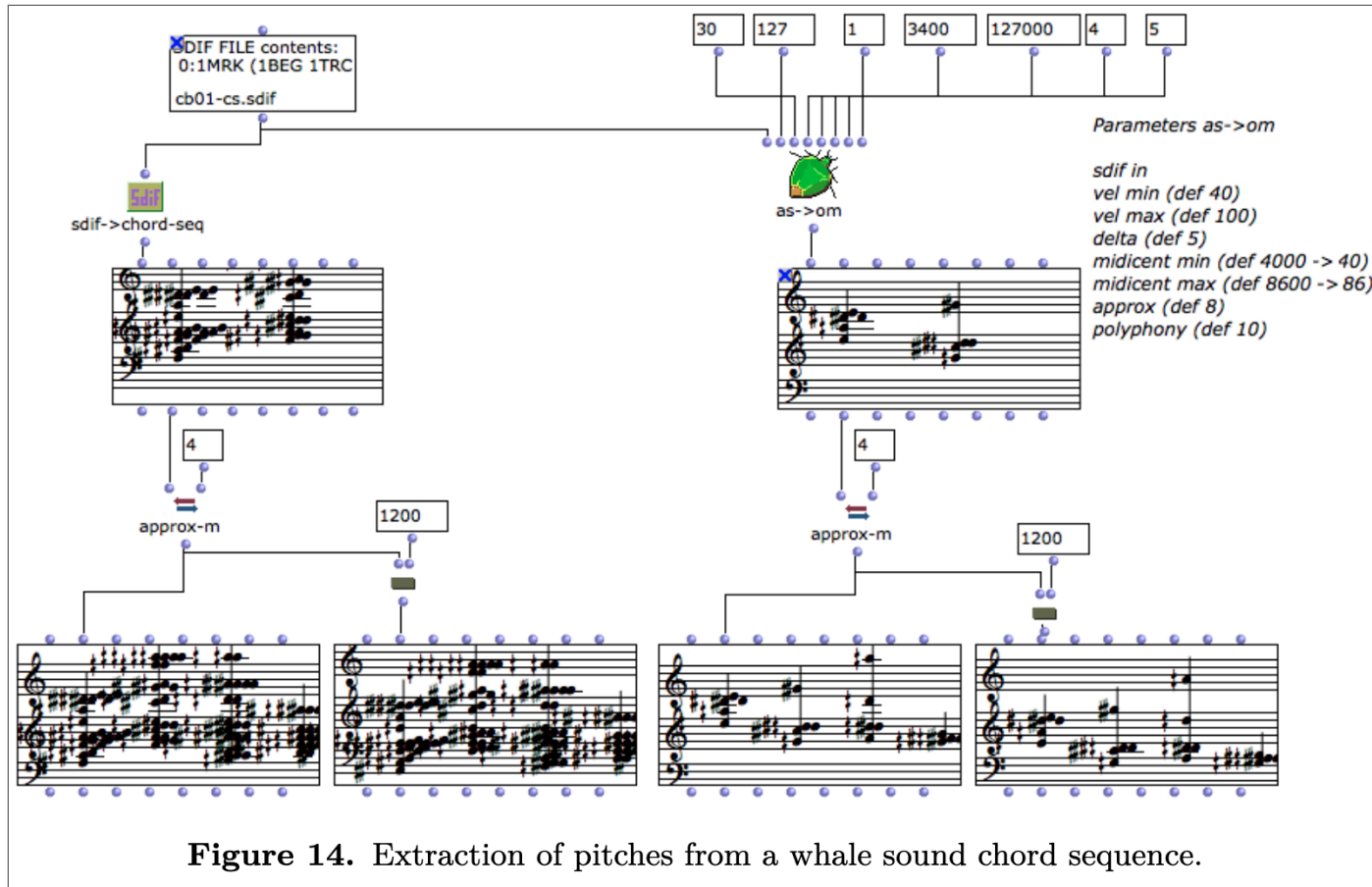


Figure 10. Formant filter with random selection of vowels and voice type.

Finales Duett



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