



# PETALS FOR VIOLONCELLO AND LIVE ELECTRONICS

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## POINTS OF INTEREST:

- Extended string techniques
- Spectral analysis
- Use of technology in live performances
- Contrasting sections, musical ideas and timbres
- Timbre being a structural principle

## STRUCTURE:

- Concerned with the tension between two types of alternating material, and with exploration of timbres.
- Type A: 'fragile coloristic passages'
- Type B: 'more energetic events with clear rhythmic and melodic character'
- 7 sections, separated into staves rather than bar numbers.

## RHYTHM, METRE AND TEMPO:

- Sections with notated tempo are slow, with accelerandi and ritenuti.
- Lento sections are essentially pulseless, each stave should last 'at least 20 seconds'. Reverb adds to this sense of free timelessness.
- Dectuplets, septuplets, quintuplets.
- Agitated rhythms involving syncopation.
- Rhythms generally become less defined as piece progresses.

## CONTEXT:

- Finnish living avant- garde composer. Heard music in 1980 by the French 'Spectral' composers Tristan Murail and Gerard Grisey which led her to explore this sound world.
- Interests included computer-based sound spectrum analysis, electronic music, music combining live performance and electronics and the use of computers in the actual composition of music.
- Spectralism: A compositional technique using computer analysis of the quality of timbre in music. Chords can be created from analysing the structure of the sound, combining harmonics and fundamental.
- Petals: based on ideas from Nympheas (Jardin Secret III) (1987), a piece for string quartet and electronics, with material taken from the spectral analysis of complex cello sounds.

## TEXTURE:

- Mostly unconventional textures because of trills, changes in timbre and technological effects applied: increased bow noise, reverb, detuning with harmoniser.
- Monophony
- 2 part textures
- Pedal/drones

## MELODY:

- Type B material: develops melodic ideas.
- Micro-tones
- Uses material from Nympheas, in retrograde, sequential development, aug 4th leaps, ornamentation. chromatic scale-like passages. glissandi.
- Frequent ornamentation: trills, mordents, grace notes

## SONORITY:

- Can be performed for solo cello or with electronics applied.
- Transforms traditional instrument into a multi-timbral synthesiser, elevating timbre into a structural principle.
- Contrast of clean and noisy sounds.
- String techniques: bowed playing, pizzicato and left-hand pizzicato, sul ponticello or sul tasto, tremolando, flautando, heavy bow pressure= noise. glissandi, contrasting intensities of vibrato. natural and artificial harmonics, double stopping.
- Electronics: Amplification, Reverberation (R), Harmoniser (H). Effects indicated with hairpins and percentages.

## HARMONY AND TONALITY:

- Atonal
- Conventional ideas of harmony are largely absent
- 'Timbre as vertical and harmony as horizontal'.