Points of interest

* The development of Spectralism.
* The importance of fundamental notes, harmonics and partials.
* The history of Musique Concrete.
* The use of reverberation and the harmoniser.
* The use of quarter & microtones.

Petals for Violincello and live electronics.

K. Saariaho 1988.



**Most commonly used time signatures**

**4/4 - 4 crotchet beats in a bar.**

**3/4 - 3 crotchet beats in a bar.**

**2/4 - 2 crotchet beats in a bar.**

**6/8 – 6 quaver beats in a bar.**

New Directions in Music

Set Work 2

 **Harmony & Tonality**

* The conventional ideas of harmony are absent in this piece as it is focussed on the manipulation of sonorities.
* Harmony is created but not in the traditional sense. Rather it is created by splitting a fundamental pitch into its constituent parts – overtones and harmonics.
* These parts can then be manipulated to create new ‘unusual’ harmonic sounds.
* There is no functionality in harmony or tonality.

 **Melody**

* As *Petals* is an experimental piece melody is not the prime concern, however in the faster sections there are more clear melodic structures. These melodic structures are manipulated in the following ways:
* Altering the pitch using quarter-tones (dividing an octave into 24 pitches).
* Using the melodic line in retrograde.
* Creating microtones – especially in the glissandi sections.

**Structure**

* *Petals* does not follow a conventional musical structure, instead it is based around two opposing musical ideas – fragile colouristic passages & more energetic, rhythmic passages.
* The two types of idea alternate throughout the piece with each one undergoing different electronic transformations.
* The piece can roughly be divided into seven distinct sections which alternate between strict time and a slower ‘free’ tempo.

* Saariaho is keen to experiment with stark contrasts in rhythm and metre.
* The sections with a notated tempo are all slow (between 40 & 66 B.P.M)
* The tempo is often varied by accelerandi & ritenuti.
* The lento sections are pulseless with an instruction that each staff should last at least 20 seconds.
* Reverberation adds to the ‘free’ timing.
* Rhythmic features include; dectuplets, septuplets, quintuplets, syncopation and pauses.

**Social & Historical Context**

**Sonority**

**Texture**

**Rhythm, Metre & Tempo**

* Experimental music had its origins in the development of Musique Concrete in the 1940s.
* Saariaho studied spectral analysis in Paris.
* Saariaho is keen to interlink live performance with electronic manipulation.
* *Petals* uses ideas from an earlier piece *Nympheas* which in turn was inspired by the Impressionist paintings of Claude Monet.
* Saariaho likes the relationship between ‘clean’ & ‘dirty’ sound.
* Notes are often split to form fundamentals, harmonics and partials.
* Notes can be further manipulated by detuning (using a harmoniser) and adding or decreasing reverberation.
* Extended cello techniques used include: normal bowing (including recording the mechanics of the bowing sound), pizzicato, sul ponticello, sul tasto, flautando, glissandi, vibrato, creating natural harmonics, double stops, micro & quarter tones & rapid dynamic change.
* *Petals* uses very few textures that can be conventionally described, but there are instances of the following;
* Monophony (staves 1-3)
* Two part textures (3, 5 & 7)
* Pedal/ drone textures (3 & 5).
* Repetition of notes creates a sense of unity to the aleatoric nature of the piece although they do not serve like pedal notes. Examples include the repeated C in staves 17-20 and the repeated dyads in staves 9 & 16.

Wider listening: *Gesang Der Junglinge –* Stockhausen, *Gondwana –* Murail*, Aux Canyons Des Etoiles –* Messiaen.