Beckfoot	Music	Topic: Kaija Saariaho–Petals– Context, structure, sonority and melody.	Year Group: 12/13	enjoy learn succeed

1. Context and structure

1	**Ralph Vaughan-Williams**	Finnish composer, who has studied in Helsinki, Germany and Paris, where she now lives. 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. Identifies as a spectralist composer.
2	**Colouristic**	Slower moving passages where the emphasis is on changing sounds of long notes. Section 1, 3, 5 and 7.
3	**Energetic**	Section with short note lengths and faster moving passages. Section 2, 4 and 6.
4	**Staves**	Rather than using bars, everything is divided into staves. In the colouristic sections, each stave must last for a minimum length.

2. Melody

1	**Chromatic**	Movement by semitones. Stave 4-7
2	**Microtone**	An interval smaller than a semitone. Glissandi are seen in stave 7 – the logical extension of microtones.
3	**Quarter tone**	The tone between a semitone. Seen in stave 4-7
4	**Retrograde**	Play a melody backwards. Seen in stave 10.
5	**Sequence**	The immediate repetition at a different pitch of a melody. Seen in stave 10.

3. Sonority – How the instruments are used

1	**Artificial Harmonic**	A harmonic produced on a stopped string on a stringed instrument. E.g. Section 5.
2	**Double Stopping**	Playing two notes at the same time on a string instrument. E.g. Stave 18.
3	**Electronic amplification**	Making a sound louder by electronic means.
4	**Fundamental**	The musical pitch of a note that is perceived as the lowest partial present.
5	**Glissando**	Slide from one note to another. E.g. Stave 18.
6	**Harmonics**	A very high note on a string instrument produced by placing a finger on a string very lightly before plucking or bowing.
7	**Partials**	Higher, much quieter sounds above the fundamental.
8	**Pizzicato**	Pluck the string.
9	**Signal processing**	Analysing, modifying and synthesizing sound signals.
10	**Trill**	A quavering or vibratory sound, especially a rapid alternation of sung or played notes.

4. Key vocabulary

1	**Spectralists**	A group of French composers who use computer analysis of sound as the basis for composition.
2	**Nympheas**	Composition in 1987 for string quartet and electronics, which Saariaho uses as a basis for the opening.
3	**Harmoniser**	A device that detunes' the input pitch by adding pitches a quarter tone above and below simultaneously.
4	**Reverberation**	A sustaining effect that creates the impression of being in a physical space. For this piece a reverb unit is used.
5	**Close mic**	A technique where the mic is placed close to the string to pick up all of the sounds made by the player.

Other points of interest: What other works by Spectralists do you know? What common features do Spectralists share? How do the electronic effects exploit the sounds available?

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5. Texture		
1	**Drone**	Pedal note that usually consists of the tonic and dominant. Seen in section 3.
2	**Monophonic**	A single line which can be played or sung by several people. Most of the piece is monophonic, however the reverb unit often allows notes to overlap.
3	**Pedal**	A sustained or repeated note sounded against changing harmonies. Seen in staves 17-27.

6. Tempo, metre and rhythm		
1	**Accelerando**	Getting faster
2	**Dectuplet**	10 notes in the time of 8. Staves 4-7.
3	**Pulseless**	No particular pulse. Free time. Lento sections.
4	**Quintuplet**	5 notes in the time of 4. Seen in stave 10-13.
5	**Ritenuto**	Hold back the music for dramatic effect.
6	**Septuplet**	7 notes in the time of 4. Seen in stave 10-13.
7	**Syncopation**	Emphasising beats of the bar that are normally unaccented. Seen in stave 10-13.

7. Harmony and Tonality		
1	**Atonal**	Sounds that are pleasant when played together. Seen in all pieces.
2	**Dyad**	A chord made up of two notes. Stave 9 is an example of a D and an A. Other chords are seen in the piece.
3	**Overtone**	A musical tone which is a part of the harmonic series above a fundamental note, and may be heard with it.
4	**Spectral analysis**	Computer analysis of sound as the basis for composition.
5	**Pedal**	A repeated or held note, normally used to give some sense of tonal centre to a piece. An example is seen with the low C in staves 17-27, although it is undermined through the constant use of the F#.

8. Key vocabulary		
1	**Flautando bowing**	T0 give a high murmuring flute like string sound.
2	**Free tempo**	No established tempo
3	**Tremolo**	Quickly repeating the same note, builds tension in the music.
4	**Heavy bow pressure**	Gives a heavy scratching sound and replaces a clean pitch.
5	**Vibrato**	A fast wobbling of the pitch – piece ranges from none to heavy vibrato.

Wider listening: Murial – Gondwana; Stockhausen – Gesang der Junglinge; Berio – Sequnza III; Crumb – Vox Balaenae; Ustvolskaya – Piano Concerto