



PETALS FOR VIOLONCELLO AND LIVE ELECTRONICS

Kaija Saariaho (1988)



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'.

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Composer: Kaija Saariaho

Date: 1988

WIDER LISTENING PIECES

SIGUR ROS- GLOSOLI

- An example of 'popular' music that uses instruments in an unconventional way. A new direction for popular music to take.
- Play electric guitar with a bow. The timbre produced is unique when natural sound is amplified and technological effects such as reverb and distortion are applied.

IMOGEN HEAP- HIDE AND SEEK

- Uses technology as a means of extending the natural capacity of the voice.
- Uses a vocoder for the entire song. Chords played on a keyboard harmonise the solo voice.
- A cappella singing draws attention to interesting timbres produced. wide range of voice explored, glissando, fragmented speech, contrasting dynamics and articulation.
- Through composed, pulseless, freedom given to performer.

TRISTAN MURAIL- GONDWANA

- Creates spectral chords using harmonics derived from a spectral wave analysis of a trombone sound and a bell.
- At the start of the piece a single chord gradually transforms into a flurry of trills.
- Studio technique of frequency modulation used for bell timbre.

KARLHEINZ STOCKHAUSEN- GESANG DER JÜNGLINGE

- Merged the sound of the human voice with electronically generated sounds.
- Used spectral analysis on the recorded vocals to experiment with 'pure' sounds (produced by vowels) and white noise (produced by certain consonants).
- Used one 12 year old boy's voice. The recordings were then combined and altered through transposition
- Contrast of the 'comprehensible' and 'incomprehensible' explored with layering, reverb, dynamic changes, overlaying of speech sounds with electronic sounds. Effects applied in varying levels. (1-7).

GEORGE CRUMB- VOX BALAENAE

- Scored for electric flute, electric cello and electric piano.
- Instruments played in unconventional ways: eg. singing into flute, plucking and strumming piano strings.
- Extended cello techniques include quarter tones, quarter tone trills, quarter tone trills with glissando, the 'seagull' effect (harmonics with glissando), Bartok pizzicatos, sul ponticello bowing.
- Score uses no key signature, accidentals only.
- Metronome markings are approximate. Score is at times graphic, with instructions regarding the amount of seconds to play something.



THE RITE OF SPRING

Igor Stravinsky (1913)



POINTS OF INTEREST:

- Why was it so controversial?
- Eastern European folk music elements
- Use of large orchestra
- Relationship between music and choreography.
- 20th Century techniques.

INTRODUCTION, THE AUGURS OF SPRING AND RITUAL OF ABDUCTION

RHYTHM, METRE AND TEMPO:

- A rhythmic work (eg. pagan dance section)
- Free rhythm
- Groupings: Triplets, quintuplets
- Polyrhythm
- Cross rhythms
- Time signature changes
- Unusual time signatures
- Syncopation

HARMONY AND TONALITY:

- Did not entirely reject tonality at this stage of his career, though there is never any clear sense of key and a constant use of harsh dissonance.
- Hints of bitonality
- Chromatic scale creates atonal effect
- Folk music elements contain modal style melodies. eg. Diatonic melody in Aeolian mode in bassoon.

CONTEXT:

- Stravinsky was invited by Diaghilev to write a piece for the Ballet Russes when some of his early pieces were heard in St Petersburg. This was successful but when he wrote the Rite of Spring this caused a scandal, because the audience found the music too dissonant and violent and were offended by Nijinsky's choreography.
- Described as the starting point of twentieth-century music.
- The music rapidly became popular as an orchestral piece and has become one of the most important works in the orchestral repertoire.
- Dance enhances score further.

MELODY:

- Many melodies taken from Eastern European folk songs, eg. Lithuanian folk song.
- Ostinatos
- Fragmentary and repetitive ideas
- Repeated notes and chromaticism
- Uses acciaccatura ornaments typical of Russian folk song
- Detaches short motifs from longer melodies and re-orders these units.

SONORITY:

- Used one of the largest orchestras ever assembled for his score:
- Quintuple woodwind
- Extra-large brass section
- Large percussion section
- Standard string section.
- Many instruments written in transpositions.
- Music opens with unaccompanied bassoon in high register.
- String techniques: repeated down bows, double-stopped chords, harmonics, pizzicato, divisi, glissando harmonics, Con sordino, Col legno.
- Muted trumpet
- Flutter tonguing..

TEXTURE:

- Predominantly polyphonic.
- 1st section: Monophony to 2 part duet to 4 part.
- Homophonic chords, melody dominated homophony
- Complex polyphony: ostinato fragments and countermelodies.
- Homorhythm

THE RITE OF SPRING

INTRODUCTION, THE AUGURS OF SPRING AND RITUAL OF ABDUCTION



Composer: Igor Stravinsky

Date: 1913

WIDER LISTENING PIECES

KORSAKOV-SCHEHEREZADE

- 2 features typical of Russian music: instruments fully exploited, colourful orchestration and an interest in the East, orientalism in general.
- Classical ballet technique eschewed to favour movement based in the upper body and arms.

DEBUSSY

- Jeux 1912: "A poème dansé" ("danced poem"), Written for a ballet for Sergei Diaghilev's Ballets Russes . The work was not well-received and The Rite of Spring was performed a few weeks after.
- Prelude a l'après midi d'un Faune: It was made into a ballet and was highly controversial because of the dancers' non-traditional movements. Score was considered beginning of modern music.

BARTOK-CONCERTO FOR ORCHESTRA

- Work combines elements of Western art music and eastern European folk music, Hungarian influence.
- Departs from traditional tonality. Uses modes and synthetic scales.
- The second main theme of the first movement resembles a folk melody with its narrow range, distinctive rhythm and drone.

SCHOENBERG-PIERROT LUNAIRE

- Stravinsky broke conventions of music through the breaking of conventions in ballet but Schoenberg did so to explore a more complex psychological aspect of the human mind and emotions: Expressionism: Extreme, heightened emotion.
- Chromatic melody and harmony
- Dissonant harmony
- Atonality
- Wide range and large melodic leaps
- Extreme dynamics

WOJCIECH KILAR-KRZESANY

- Very large symphony orchestra with a prominent percussion section. Instruments use extended techniques (eg. flutter tonguing on brass.)
- Controversial: This postmodern work combined avant-garde techniques with primitivism.
- Melody reveals folk influence (ornamentation on strings) from the Polish highlands.
- Major tonality of folk melody juxtaposed with largely dissonant and atonal structures produced by the rest of the orchestra, as a result of aleatoricism.