

'Magnetic Alphabet'

Shane Beales

Magnetic Alphabet

Little pieces stuck together

Kinetic connections

breed unforeseen vectors

Nothing ever works right

You I didn't figure quotas out

Zoom 'X' generates highest jump

MASW - Musical language - CW2 Essay

Magnetism, project overview & the sounds from the 1920s

Magnetic Alphabet is the title track of a five-song cycle exploring the theme of magnetism. The songs examine polarity and joining of abstract ideas incorporating 20th century compositional traditions of early electronic music (Oja, 2003) and the world of Dada word play (Moma, 2020) from the 1920's as well as Musique Concrète from the 1950's and Minimalism (Brittanica, 2020) from the 1960s onwards.

The song 'Magnetic Alphabet' was the last to be composed in the series, but was written to be the opening song of the portfolio. A kind of overture, it introduces the key themes and methodologies. It is an accompanied piano duet featuring solo Theremin in 7/4 time at 143 bpm and is in the keys of C minor & Eb. At the heart of the project is a desire to present a joining of opposing ideas: a musical representation of the phenomenon of magnetic fields. The song presents these ideas in a rich set of interlocking relationships in the form of time signature, rhythmic phrasing, modal harmony, melodic construction, instrumentation & timbre, lyric, recording methodology, digital manipulation of sound & effects, and compositional frame.

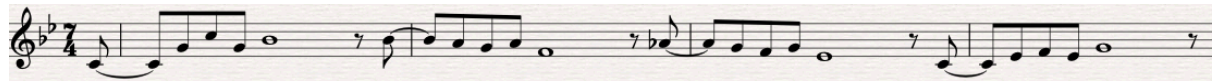
Compositional Frame

Each song in the series abides by the following 'rules' (see Moma, 2020)

- Each work must contain a reiteration of the core melodic motif ('*Theme II*' in this song).
- Each verse must contain twenty six words each beginning with a different letter of the English alphabet.
- Each subsequent verse must use the same set of words from the first verse in a different order - representing the idea of 'fridge magnet poetry'.
- Wherever possible, recordings and samples from two or more sources should be fused together to create new musical ideas.

Core Melody, Themes I & II

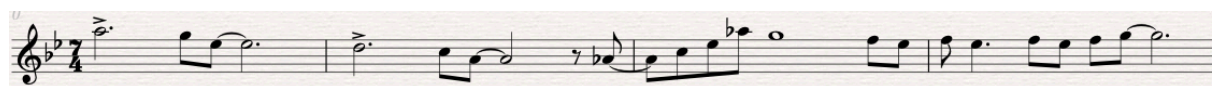
The core melody that is featured throughout the song cycle is a symmetrical series of four two bar phrases in the key of C minor. Each of the four phrases has the same syncopated rhythmic pattern and an identical number of pitches (see fig 1).



(fig 1 'Core melody/Theme II')

This melody conveys two kinds of C minor tonality. The second bar features a natural sixth (A) and conveys the sense of lightness, hope and possibility belonging to the Dorian Mode. The third bar features a minor sixth (Ab) and conveys the shade and foreboding inevitability of the Aeolian mode. Thus the four bar melody can be divided into two symmetrical halves here representing the coming together of positive (Dorian) and negative (Aeolian) charges found in magnetism. There is only a semitone difference between the two modes, but the character of the harmonic difference is quite stark. Beyond just this modulation, the melodic shape is itself a mirrored reflection further underscoring themes of magnetism: the 'negative' charged melodic phrase is itself the 'positive charge' in retrograde with diminution. The subtle implication for the listener is that though these melodic fragments can be separated, they belong in fact to one idea of two halves joined together.

In 'Magnetic Alphabet' this core melody is occurs during the second verse as a tune played on second piano. The first verse is accompanied by a complementary melody designed to introduce the tonality of the core melody (theme II), but also fill in the spaces left in its wake (see fig 2).



(fig 2 'Theme I')

Here the melody again divides in half according to the modal tonality previously outlined. This melody announces the 6th degree of both C Dorian and, later on, C Aeolian. Bar 3 is a rhythmically identical inversion of its counterpart (see fig 1) and represents the coming together of these two melodies as demonstrated by Verse 3: the stereo recording is split so that the 'Theme I' sounds in the left speaker and 'Theme

It sounds in the right speaker. This coincides with the same with the same effect being treated the vocal so that verse 3 is in fact verses 1 and 2 sounding simultaneously.

Song Structure, Piano chords & Vocal ‘melody’

‘Magnetic Alphabet’ has a six bar introduction. Optimistic trills complement the insistent rhythmic pattern of staccato cellos, legato solo violin and brooding piano bassline & drumkit. The arrival of first piano chord and vocal in bar seven bring an unexpected harmonic colour designed to intrigue the listener. Unconventionally, the vocal ‘melody’ is far less melodious than the two melodic instrumental themes previously outlined. The vocal is in fact three voices sounding the triads played by the first piano in the form of a syncopated homophonic chant (see fig 3) with a degraded tape delay effect.

The image shows a musical score for a voice and piano piece. The time signature is 7/4. The voice part is written in three staves, each representing a different voice. The lyrics are: "Down up Wrong in - to right Back-wards for - wards Sun - lit night". The piano part is written in two staves. The right hand plays a repeating rhythmic pattern of eighth and sixteenth notes. The left hand plays a bass line. Chords are indicated as Cm6(add9), sim, and Abmaj7/C.

(fig 3 Verse 1 voice & piano)

Similarly to the way the core melody is split in half, each bar of 7/4 is divided symmetrically into a repeating pattern 3 ½ crotchets long. It is also of conceptual significance that the time signatures requires the joining of two 3 ½ beat patterns in each bar. The right hand of first piano plays this repeating minimalistic rhythmic ostinato for the duration of the song: G pedal remains throughout with the remaining two notes cycling from perfect 4th (A & D) to perfect 5th if (Ab and Eb) every two bars via repeating chromatic diminution and augmentation. The vocal employs a C pedal and the aforementioned perfect 4th transitioning to perfect 5th. This voicing conveys a bare, emotionless, mantra-like quality, in keeping with the lyrical form and content. The verse is 12 bars long allowing three cycles to complete all twenty six words (see Appendix for full lyrics). ‘Theme I’ joins from the fifth bar of the verse.

Verse 1 concludes with a four bar break in the relative major key (Eb Lydian and Ionian). The left hand bass note of the piano change, whilst the right hand continues the to play the same repeating ostinato as previously thus sounding two bars of

EbΔ(#11) in the Lydian mode and two bars of Eb(sus 4) in the Ionian mode. Second piano and electric keyboards play a seven-quaver arpeggio cycling twice through each pattern per bar (see fig 4).



(fig 4 Piano 2 & Electric Keyboard)

This break marks a sudden departure from the established mood. The Eb Lydian mode brings with it a sense of purposeful optimism revealed by the closing lyric of V1:

‘Like opposites coalescing, Magnetic Alphabet’.

The notion here is that the phenomenon of magnetism demonstrates the possibility for opposing forces to be joined together with a shared sense of unity and purpose. In the arpeggio that the A natural rises a semitone in the third and fourth bar to a Bb (see fig 4) rather than falling to the Ab. This contributes to the sense of lift which is also boosted by the arrival of an electronic drum pattern - a combination of ten separate drum beat samples to create a part that emulates the fizzing of bursting electrons.

Verse 2 returns to the established arrangement for 8 of its 12 bars. The primary difference here is that key words are presented in reverse order. Instead of recording this verse as written, Verse 1 has been digitally cut up and reassembled in much the same way that magnetic tape would have been in an analogue recording. Although potentially unnoticeable on first listen this method further embeds the analogy of fridge magnet poetry. There also gives rise to some ‘accidental’ dissonance: the lyrics ‘Jaded xerosis’ and ‘Kinetic psychosis’ belong to opposing modes, resulting in a clash of A natural and Ab sounding at the same time during the second and third verses. Although this may be imperceptible, it does present the listener with a certain unease during these lines, which is fitting with both the lyrical content and the section of the song within which the dissonance takes place.

Growing emotion; the sound of electromagnetism

The third cycle of verse 2 (bars 9-12) occurs during a return to the Eb bass (see fig 4) which brings a growing sense of optimism. The words begin to feel less abstract with the emergence of emotion on account of the change in harmony, dynamics and musical arrangement, rather than vocal performance (as this was a direct copy from

verse 1). 'Theme II' (sung by soprano voice) gives way to the arrival of an Ondes Martenot (120years.net, see fig 5) playing a variation of 'Theme I'. It is of great importance to this project to have included the Ondes and the Theramin (Glinsky, 2005 & Draper, 2019) both of which derive their sound from manipulating electromagnetic fields & were invented in the 1920s. The Ondes here emulates the elasticity of the soprano voice and is blended in such a way as to move seamlessly from one sound into the other; it is hoped that for a brief moment the listener may not realise that the instrument has changed.



(fig 5, recording the Ondes Martenot)

At the conclusion of this verse the bass moves to the Dominant chords of Bb Δ and Bb7(sus4) for four bars. There is a crescendo of intensity as the vocal chant repeats each word of the title four times accompanied by stabbing 'newscast' style headline accents, announcing that the music is racing towards climactic point, which is delivered with a perfect cadence returning to the Eb chord at the start of the Ondes solo.

Solo, V3 & Outro

The Ondes Martenot solo brings the emotional peak of the song. This is achieved in three ways: Firstly the title lyrics 'Magnetic' and 'Alphabet' are simultaneously repeated, their rhythmic patterns intertwining to demonstrate the joining of two separate ideas to create a new word, 'Alphabetic' continually being reformed with each cycle. Secondly, the harmonic movement shifts to a rising bassline of six ascending intervals from Eb through to C (see Appendix 1). There is a familiarity to the succession of these chords which adds to the sense of arrival initiated by the perfect cadence. Thirdly, the Theramin solo soars with a forte rendition of 'Theme I' followed by two subsequent variations, each ascending new heights, until the final two bars where the melody line cascades in preparation for the song's conclusion with verse 3 (see Appendix 2).

V3 features some manipulation of the stereo image (noticeable when listening on headphones): the left speaker sounds a combination of both V1 and 'Theme I', whilst the right speaker sounds a combination of both V2 and 'Theme II'. The notion of magnetism is once more in full view here with both the consonance of 'Themes I & II' coming together and the dissonance of Verses 1 & 2 sounding Dorian and Aeolian tonality simultaneously at key points. Instead of once more growing as the verse reaches its conclusion, there is a sense of unwinding aided by the return of both the warm string trills paired with solo bass line from the introduction plus the soprano voice singing 'Theme II', this time slowed down in rubato. Presenting this melodic line in the is manner and at this point is crucial as it brings that particular melody into focus and sets the scene for its appearance in the subsequent songs of the cycle. Having announced and established the key ideas of magnetism, this overture leads on to four other reiterations of this material, concluding with a reimagination of William Hickson's own 19th century 'reimagined' lyrics to the National Anthem (The Guardian, 2008).

It is the first time that I have been so committed to writing a series of works with such a clear compositional framework and theme. I would like to express my gratitude for the way the module has enabled me to grow as a songwriter and to broaden my appreciation of musical language.

1941 words

Appendix 1

By Shane Beales

Magnetic Alphabet (7/4 143 bpm)

Intro Cm

V1 Cm(add6) AbΔ/C

Down up
Wrong into right
Backwards forwards
Sunlit night

Give take
Kinetic psychosis
Yesterday herald's
Jaded xerosis

Violet quarry
Zebra effect
Like opposites coalescing
Magnetic Alphabet

Break EbΔ(#11) Eb(sus4)

V2 Cm(add6) AbΔ/C

Up down
Right into wrong
Forwards backwards
Nightlit sun

Take give
Jaded xerosis
Yesterday herald's
Kinetic psychosis

Eb(#11) Eb(sus4)
Quarry violet
Zebra effect
Like opposites coalescing
Magnetic Alphabet

BbΔ(add6) Bb7(sus4)
Magnetic (x4) Alphabet (x4)

Solo EbΔ(#11) Fm
Gm(add9) Ab
BbΔ(add6) AbΔ/C

MagneticAlphabet (repeating/overlapping)

V3 Cm(add6) AbΔ/C
(Left side/*Right side*)

Down up/*Up Down*
Wrong into right/*Right into Wrong*
Backwards forwards/*Forward backwards*
Sunlit night/*Nightlit sun*

Give take/*Take give*
Kinetic psychosis/*Jaded xerosis*
Yesterday herald's
Jaded xerosis/*Kinetic psychosis*

Violet quarry/*Quarry violet*
Zebra effect
Like opposites coalescing
Magnetic Alphabet

Outro Cm

Appendix 2

Magnetic Alphabet solo

$\text{♩} = 143$

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