

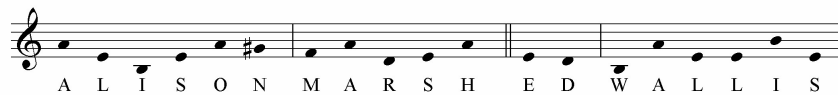
## ...a seal upon thine heart

...a seal upon thine heart was written for Alison Marsh and Ed Wallis for their wedding in April 2010. Alison requested that the piece be lyrical and gentle and that it might also allude to Delibes's Flower Duet, an arrangement of which I had made previously for a clarinet duet that Alison had performed in. Further material for possible inspiration included the wedding date (17/iv/10), the letters 'A' and 'E', the couple's full names and the number 4. Finally, the piece had to be of moderate level for the clarinetist and suitable stylistically to be played during the service.

To begin with I looked at methods for obtaining melodic phrases from the names. A simple substitution cipher was settled upon for encrypting each letter of the alphabet into notes from the scale of A minor:

A	B	C	D	E	F	G#
A	B	C	D	E	F	G
H	I	J	K	L	M	N
O	P	Q	R	S	T	U
V	W	X	Y	Z		

This resulted in the two names producing the following note rows:



I chose to transpose the name rows to Bb (the natural tuning of the clarinet to be used) for the purpose of playability, and to create a naturalistic tuning and sound.



Alison's name became the basis for the piano part in bars 1-15 with her first name creating the osintato that opens the piece (b1). This is then developed in the next few bars leading to her surname (Marsh) changing the harmony at b12. The note row for 'Marsh' is then employed as a 5-note sudo-isorhythm in the piano until the harmonic rhythm increases at b16. The name rows are further used in this section for melodic construction from b12 (see clarinet part):

*Flower Duet' opening motif - unfolding*

*Permutation of the row*

*Alison Alison Alison Alison Ainl ilnan*

*Alison Alison*

*Mar... sh Mar(r)sh Ed*

*Marsh Marsh Mar(r)sh Marsh Marsh Marsh Marsh*

The pitch material for the unfolding clarinet phrase that opens the piece was freely selected although the outline of the gesture as a whole was borrowed from the Delibes (see Cl.1):

This opening phrase becomes the main gesture for the whole piece and can be seen in many guises throughout. Towards the end of the piece (bb109-111) the notes of ‘Alison’s’ row are superimposed on this gesture before the other name-rows appear and final development takes place.

Further borrowing from Delibes occurs between bars 40-72 during which the rhythm of the clarinet part is an exact replica of the middle section of the Flower Duet, albeit in augmentation. In the following example the arrangement of the Flower Duet is given as a point of comparison. This section of the Delibes concords with bar 42 of ...a seal upon thine heart. Note too how the piano part was also built thematically from this with the falling 2nd semiquaver motif of Delibes becoming the falling 2<sup>nd</sup> quaver motif in the augmented version.

In the arrangement the second clarinet takes over in bar 39, an event which prompts the piano to take over the melody in bar 58 of ... a seal upon thine heart with the original piano counter melody moving to the lower voice. Likewise, and more obviously, the accompaniment figure of

b43 (Delibes) is extracted in its entirety for the material that begin at b66. The melody that the piano introduces at b58 is based on Ed's name and is followed by fragmentation and the gradual merge with Alison's between bb67-74. The piano cadenza of bb84-88 is constructed from both names in their entirety. After the reprise of the opening material by the piano the clarinet enters with its own cadenza which is constructed directly from the name rows.

The decision was made early on that the names would be used for the melodic material of the piece. It therefore followed that the harmony would be derived from the wedding date (17/4/10) and the number four.

A method was sought for deriving harmony from the date. I decided on reading the date as a series of three intervals (a 17<sup>th</sup>, 4<sup>th</sup>, and 10<sup>th</sup>). This created a problem as 17<sup>ths</sup> and a 10<sup>ths</sup> are the same as 3<sup>rds</sup> (albeit compound). I therefore decided to alter the quality (maj/min/dim/aug) of the intervals. Various attempts revealed that 17<sup>ths</sup> and 10<sup>ths</sup> were best regarded as major or minor and not augmented and diminished as augmented or diminished 3<sup>rds</sup> sound the same as 2<sup>nds</sup> and 4<sup>ths</sup> respectively (a dim 3<sup>rd</sup> is the same as a maj 2<sup>nd</sup> and would therefore no longer sound like a 3<sup>rd</sup>/17<sup>th</sup>). Likewise, 4<sup>ths</sup> behave in a similar manner working best as perfect or augmented intervals. It was thus decided that the 17<sup>ths</sup> and 10<sup>ths</sup> could be regarded as major or minor and the 4<sup>ths</sup> regarded as augmented or Perfect. The initial chord was constructed by read the 17<sup>th</sup> as a major interval, the 4<sup>th</sup> as a perfect interval and the 10<sup>th</sup> as a major interval. The second chord altered the 17<sup>th</sup> and 10<sup>th</sup> to minor whilst maintaining the perfect 5<sup>th</sup>. The third and fourth chords used a combination of major and minor thus covering all possibilities. The matrix for this system can be summarised as follows:

	17 <sup>th</sup>	4 <sup>th</sup>	10 <sup>th</sup>
Chord 1	Major	Perfect	Major
Chord 2	Minor	Perfect	Minor
Chord 3	Major	Perfect	Minor
Chord 4	Minor	Perfect	Major

Using the root of Bb the following chords emerged from the date matrix:

Octaves reduced

The quavers above show the original intervals followed by the chord constructed by verticalisation. The compound intervals were then removed to reduce the octave distribution resulting in the final chords of each of the above bars. A second matrix was constructed altering the Perfect 4<sup>ths</sup> to Augmented 4<sup>ths</sup> and the same process was carried out resulting in four chords (again based on the root of Bb):

	17 <sup>th</sup>	4 <sup>th</sup>	10 <sup>th</sup>
Chord 1	Major	Augmented	Major
Chord 2	Minor	Augmented	Minor
Chord 3	Major	Augmented	Minor
Chord 4	Minor	Augmented	Major

Eight chords were now available for the harmonic pallet of the piece. These were then transposed by the interval of a Perfect 4<sup>th</sup> (bringing the number '4' into the harmonic writing) resulting in a complete pallet of 24 chords:

**Bb:**



8 **Eb:**



13 **Ab:**



The image displays three rows of musical notation, each representing a different transposition of a chord row. The first row is labeled 'Bb:' and contains 8 chords. The second row is labeled '8 Eb:' and contains 8 chords. The third row is labeled '13 Ab:' and contains 8 chords. Each row shows a sequence of chords on a staff, with the chords being transposed by a perfect fourth interval.

The whole piece is constructed using these chords and their inversions along with the incidental harmony that results from using Alison's name row in the opening piano part. Chords other than these 24 (and various transpositions) are very rarely used in the course of the piece. To draw attention to the quartal aspect of the harmony (the fact that the three transpositions are a 4<sup>th</sup> apart), chord sequences would often be constructed from reading vertically down the chart resulting in chords with bass notes a 4<sup>th</sup> apart. The initial Bb chord row was used in its entirety to end the piece (bb128-end) and can also be easily spotted in bb16-23.