

Analysis of B-Axis Study Number 1 in B Major

This particular Axial Study is a good example of the employment of several Schillinger principles in a simple work that makes the techniques very clear. In this case, the played zero axis of the melody, the open B string of the guitar, is the root of the tonic B major triad, while the texture is two-part counterpoint, not counting the played zero axis as an incipient third voice.

Here is a link to an objective MIDI to MPEG4 audio file you can listen to so that you can hear the devices in action. In performance, I play a pretty profound *ritardando* at the end, so try to ignore the abruptness of the conclusion.

http://hucbald.com/Schillinger_Works/02_01_B-Axis_1.m4a

An overview of all of my Schillinger inspired pieces from this collection is here:

http://hucbald.com/Schillinger_Works/00_00_About%20Schillinger.htm

And the open directory with all of the PDF and AAC files is here;

http://hucbald.com/Schillinger_Works/

Please feel free to use these resources in any Schillinger related teaching that you do if you find any of them useful. Also, if you are a guitarist and you want to perform any of these, let me know: I'll travel anywhere in the US to hear a performance!

Please feel free to contact me with any comments or questions that you may have:

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B-Axis Study Number 1 in B Major

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from Six Studies on a B-Axis for Solo Guitar

by George Alton Pepper

The musical score is written for guitar in B major (three sharps) and 2/4 time. The tempo is marked as quarter note = 120. The piece begins with a pickup eighth note on the zero fret, followed by a series of eighth notes on frets 1, 3, 0, and 1. The melody is constructed using Schillinger's technique of Quadrant Rotation, with the original figure and its three permutations (Inversion, Retrograde Inversion, and Retrograde) appearing throughout. The score is divided into measures, with measure numbers 5, 9, 13, and 17 indicated in boxes. Fingering is shown with numbers 1-4 below the notes. The piece concludes with a double bar line and repeat dots.

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Here, the played zero axis begins as a pickup eighth note, and the genesis of the melodic trajectory is out of that and above the axis. For the construction of the melody, I employed Schillinger's technique of Quadrant Rotation, which is using an original figure in all four of its possible permutations: Original, Inversion, Retrograde Inversion, and Retrograde in this instance.

The simple rotational melodic figure of measures one and two reads, re, mi, fa, mi in the key of B, so that is the original form. Measures three and four answer that with, la, sol, fa, sol, which is a diatonic inversion of the original. Then, in measures five and six, the figure morphs into, do, ti, do, re, which is the retrograde inversion, and finally, the figure appears in seven and eight as, mi, fa, mi, re, which is an exact retrograde of the original an octave higher. Measures nine to eleven simply bring the trajectory back toward balance for the repeat with a stepwise scalar passage.

For the bass melody there are a pair of rough diatonic augmentations of the melodic figure, which you can see just by looking, in measures one through four, and again in five through eight. Even very casual approximations like this lend effectiveness to a piece of music: It is not necessary to strive for formulaic exactitude all the time.

Note another idea that Schillinger made me aware of, and that is asymmetrical phraseology: The A section is 11.25 measures in length, counting the pickup bar. The melodic peak of E in measure seven, then, comes at measure 7.75 out of 11.25, which is at about 69% through the phrase. This is very close to the natural norm, which is 66.6%, or $2/3^{\text{rd}}$ way through: This is a "happy" section as a result of this natural melodic form combined with the diatonic major mode.

At the second ending the melody turns around to go into the interlude. Note that this creates an augmented retrograde-inversion of the original melodic germ.

The interlude starting at ten functions as a respite from the original texture, and here I establish a secondary axis on F-sharp that has $1/3^{\text{rd}}$ the number of attacks as the primary axis. This is obviously the perfect fifth of the tonic major triad. I also made a point to work a version of the original rotational figure into this, though, as in measures nineteen and twenty we get, la, sol, fa, sol, which is exactly the same inverted form heard in measures three and four. *Tres cool, non?*

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The image displays a musical score for a guitar piece in B major, consisting of five systems of music. Each system contains four measures, with measure numbers 21, 25, 29, 33, and 37 indicated in boxes at the beginning of each system. The key signature is B major (two sharps). The notation includes various fretting techniques such as natural harmonics (marked with '0'), double stops (marked with 'x'), and specific fingering instructions (1-4). Above the staff, Roman numerals (II, VI, IV, V, VII, IV) indicate chord positions. The music features a mix of eighth and quarter notes, often beamed together, and rests. The bass line is indicated by a line with a '1' and a bar line below the staff.

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Another idea I got from Schillinger that is here applied intentionally, but in a casual non-rigorous way, is the idea of modifying themes by intervallic expansion. I touched on this briefly when I described the bass melody of the A section. Here, in measure twenty-five, the melody starts out as if it is going to make a retrograde statement of the original figure, but the following

intervals are expanded to minor thirds, creating a diminished triad as the tail of the motif. This is a prefiguring of what is to come in the B section proper. Note that the F-double-sharp creates a DINO – Dissonance In Name Only – over the E in the bass: A notated augmented ninth is in sound a minor tenth. This allows both voices to proceed up stepwise – a semitone in the lead and a whole tone in the bass, into the true dissonance of a major ninth. Just a little contrapuntal affectation I'm fond of which produces an effect I enjoy.

At twenty-nine then, the proper B section begins, and it starts out as a regular sequential section for the first three phrases. Even the bass melody is perfectly sequential after the initial intervallic adjustment of a falling minor third in measure twenty-nine.

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The musical score consists of five systems of music in 3/8 time, all in the key of B major (indicated by two sharps). The notes are written on a single treble clef staff. Measure numbers 41, 44, 47, 51, and 55 are indicated in boxes at the beginning of their respective systems. Roman numerals II, X, XI, VII, IV, II, IV, IX, V, II, and IV are placed above the notes to indicate chord positions. Fingerings (1-4) and accents are shown below the notes. Measure 41 starts with a box containing the number 41. Measure 44 starts with a box containing the number 44. Measure 47 starts with a box containing the number 47. Measure 51 starts with a box containing the number 51. Measure 55 starts with a box containing the number 55. The score ends with a double bar line and a fermata over the final note. The final measure (55) includes dynamic markings 'p' and 'a'.

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For the climactic phrase I wanted something more dramatic, so I employed a symmetrical structure; an augmented triad in this case. These are highly unusual in early common practice music, which is where most listeners are familiar with two-part counterpoint textures from, so it really is a surprising

device, especially in a major key piece like this: Even in early Romantic homophonic music, these are more common in minor keys.

After using the augmented triad to quickly and dramatically increase imbalance with its rapid departure from the melodic axis, I answered it, so to speak, with another symmetric structure, a fully diminished seventh chord, on the descent back to balance in measures forty-five and forty-six.

Again, fully diminished seventh arpeggios are far more common in minor key pieces, so this continues the drama, albeit at a reduced level of intensity, even as the trajectory returns to balance for the next statement of the A section. So, I set this climax up – foreshadowed it, in other words - with the diminished triad I employed back in the interlude: We've heard a diminished triad, an augmented triad, and a fully diminished seventh chord in the melodic trajectory in this piece. By employing devices like this strategically and sparingly, very satisfying musical effects can be achieved, even in tiny miniatures of very limited scope, such as this guitar study.

This B section is eighteen measures in length, which, while an even number, is still not divisible by four, so it isn't exactly square: The first three phrases are four measures each, but the final climax and *denouement* phrase is six measures, which divides as four plus two. Since the melodic peak is at measure 15.5 out of eighteen, that gives the 86% point, which is much later and more dramatic than the more normative climax back in the A section.

In conclusion, Schillinger has much to offer a composer, whether that composer has a proclivity for the rigorous formulaic aspects of The System or not. By simply internalizing a few of the concepts he presents, and employing these tactical devices in an organic stratagem, anyone can increase the effectiveness of their compositions, regardless of style or scope.