

Mihai Popean - Forensis Analysis 2

Case study: Charles Wuorinen, *Haroun and the Sea of Stories*

Haroun and the Sea of Stories is an audio book based on a children's book written by Salman Rushdie in 1990. A decade later it became the source of inspiration for Charles Wuorinen's opera with the same name, written in 2001.

On the Far Side of the Moon is a 38-measures (659-691) musical fragment written in standard notation for mixed voices (SATB) and piano. It is labeled "19," which suggests that belongs to a suite, in which case there is a greater structure in the background, or is part of a collection such as composer series, songbook, or a choral suite. The first option seems relevant as the measure counting starts at measure 659, pointing to a larger scale work.

At an average of $Qt.=90$ for 659 measure of 4/4 time signature the time span would be approximately 3 seconds/measure for a total time span of approximately 32 min. Piano accompanied choral works do not usually last that long due to voice fatigue, pointing to something larger that would allow the chorus time to rest, such as an oratorio, opera or the like.

First two voices (Tenor and Bass) are introduced on the last beat of the second measure while the other voices appear after twenty measures (Soprano and Alto in measure 679) creating the impression that the instrumentation was mixed chorus and piano, in which case an extended choral work, an oratorio or an opera are the choices that come first to mind.

However, (IFF) and (BUTT) written on the voice staffs at the beginning might signify characters and it is something commonly used in opera scores, to identify the character written on a certain staff rather than a choral section.

The piano writing is not idiomatic to any period other than the twentieth century due to the use of unusually large intervals with a horizontally-unfolding pattern (harmony is not of primary concern

but a by-product, unlike Classical or Romantic works), the use of accidentals and the lack of tonal centricity.

The successions of intervals used in the score require skillful movement of the hands from one staff to another (measures 665-668, 678-679) which is again something uncommon to earlier periods which kept the hands on their own staff as much as possible; when such shifting was absolutely necessary it was notated in the score. This writing suggests orchestral score reduction or at least that kind of approach, in which case this could be a piano reduction for a chorus in an opera or oratorio.

The lyrics are written in current English, which could be either a new rendition of an older text, a current translation from another language or intentionally written in English.

1.

On the far side of the moon
Darker than the deepest wood
In a permanence of gloom
Lives the Master Khatam-Shud

2.

And the dark Chupwallas go
Fearful of his least command
And their somber legions know
Deeds done by his dreadful hand

3.

Ev'rything must have an end
Die, decay and decompose.
Friendship falters, falter friend
Shorn the shape the shadow shows

4.

In the shadow of the moon - Dark

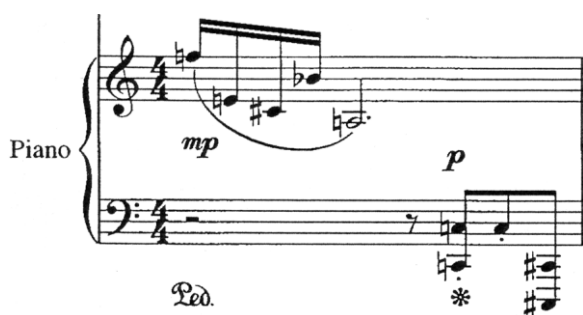
You should know if you should go
Khatam Shud, Khatam Shud

Several features of this poem appeared significant from an analytical standpoint:

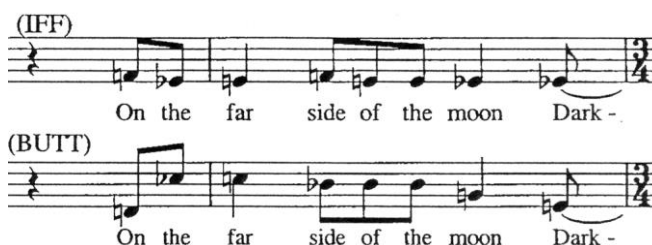
- The third verse starts with an abbreviation common to current English (Ev'rything) and a translator would use the complete word (everything) when translating from another language especially because it does not change the rhythm. The agogic accents are seamlessly resolved in the music. These two details suggest that this is not a translation even though the names of the characters are definitely not English names (Khatam Shud, Chupwallas).
- Khatam Shud in the musical text appears with a dash in between which in normal writing would be spelled as Khatamshud. However, "shud" is consistently written with a capital letter signifying that it is not a matter of splitting the word into syllable but two different names (Khatam Shud). Still, the dash keeps them together as there is no reason to use it otherwise giving rise to the final version as being a compound name "Khatam-Shud".
- The subject describes a dark world on the far side of the moon where a military force (legions of Chupwalas) led by the dreadful warlord Khatam-Shud is waiting in fear of his commands. The "dark side of the moon" is a fairly contemporary subject to approach as it has a "Star Wars" flavor to it, coupled with an Eastern scent.
- The fourth verse brakes the evenness of the poem's rhythm and form (incomplete, shorter, no rhyme) which again suggests an operatic means to extend text for musical purposes, revealing a greater structure behind the scene itself and possibly inherent in the music itself (it acts more like a musical coda than a legitimate extension of the poem). However, from a literary point of view, it is definitely an extension of the

“hushing” device (Shorn the shape the shadow shows) employed in the third verse where four successive “sh” sounds are present in the male voices (TB: mm. 678-80) followed by a general hushing in the female voices “Sh.....” (SA: unvoiced, mm. 681) and complemented by the last “sh” sounds integrated into the last incomplete verse (mm. 680-91: ..shadow ...should ...should ...Shud ...Shud) This literary device rounds up the “...far side ...dark ...gloom ...fearful ...somber ...dreadful” environment as described in the first two verses and deconstructed in the third verse in which the dissolution of everything human and alive into shadow is introduced (die, decay, decompose, friendship falters, shorn, shadow.)

- A preliminary analysis of the musical text reveals intervals characteristic to the sound of works currently labeled as *atonal*, composition with *pitch class* or *serial* music.



Example: Piano, measure 1 [659]) {F, E, C#, Bb, A, C} → hexachord
[BbBCC# EF] → (012356)



(IFF) Example 2a: (Tenor/Bass measure 3 [661]) {F, Eb, E} → <EbEF> → [345] → (012)

(BUTT) Example 2b: {F, Eb, E, Db, B, G} → hexachord <BDbEbEFG> → <GFEEbDbB> → [75431B] → (023468)

In the first example, the grouping considers repeated notes as a marker for the set. However, it could be argued that pitch class 0 (C) is not part of the set, as it appears in the lower voice with a different dynamic and after a period of rest related closely to what follows in the bass voice rather than the upper group of five pitch classes.

However, the rationale used here was the pedal marking which suggests that the first six notes are musically connected while the immediately repeated pitch class 0 (C) is the marker for the next group of related pitches.

In the second example, the grouping of elements is textually based. Furthermore, considerations of contour (contrary, parallel motion) and function within the general structure (isorhythmic pattern, textual significance) are considered.

This approach can prove to be a useful exercise at a small scale, but in the grand scheme it offers little resemblance of any particular structural pattern especially due to a great number of pitch repetitions.

The palindromic occurrence of half-steps in the Tenor, for example the {EbEFEEb} → [01210] part of a contour inversion {FEbEFEEb} → (201210) further part of an even larger descendant chromatic substructure [FEbEFEEbD] → (3123210) where emphasized are <FEEbD> by note values and function within the substructure, could have been very well a structural blue print; however, it appears nowhere else in the piece.

Furthermore, both the Tenor and the Bass together form a septachord (0123468) which again does not seem to be a template for this piece. Even projecting further in different combinations (T, B,

TB) as it would make sense following the text, inevitably results in incomplete series:

(G Clef) 5 3 4 5 4 4 3 3 3 2 7 6 A 9 6 5 3

On the far side of the moon Dark - er than the deep - est wood

Excluding the repetitions, this translates as the octochord [534276A9] and it is debatable what the first three pitches are: 534, or 543.

The Bass line is somewhat simpler since excluding repetitions renders as the octochord [5341B769] which material has a very high degree of combinatoriality with the one in the tenor having no less than a hexachord [534769] in common.

(F Clef) 5 3 4 1 1 1 B 7 7 B 3 3 6 9 6 5 3

On the far side of the moon Dark - er than the deep - est wood

Considered as a unit in itself on isorhythmical (same rhythm), textual (same text), chromatic (same use of alterations) and architectural grounds (both voices flanked by identical rest markers), both voices seem to point to the reminiscence of an incomplete series of ten tones [53421B76A9] missing the elements 0 and 8.

Element 8 appears twice in the piano part at the beginning of measure 3 (661), once in each voice and in contour retrograde response motion (unique in the piano part motion before and after) of the voices entrance suggesting a possible relationship.



Element “0” is still missing and its occurrence before and after this moment seems to not be relevant for this particular context leaving the row apparently unfinished. Further analytical of the distribution of pitch classes dismisses completely the idea of composition with pitch classes and tips the balance strongly towards a serial composition.

The design of pitch occurrence seems to be based on a much larger scheme than the traditional serial rendering as the rules to govern their relational status are not transparent while tonal centricity is also absent.

When performed on piano, the music sounds much like a serial composition, somehow suggesting different layers of discreet complexity as seen elsewhere in Milton Babbitt’s *Partitions* for piano solo (1964, *New Music for the Piano* anthology). However, as a personal consideration, there is an “organic” quality to this work in comparison to the synthetic appeal of *Partitions*.

If *The Far Side of the Moon* is even by far as structurally determined by complex mathematical considerations as Babbitt’s music, then the appropriate tool for analysis might be found in higher order serial principles (aggregate, array, super-array) rather than classical serial rules.

In order to gain further insight, knowing the composer would help a lot as usually composers using complex compositional

techniques explain them in publications readily available (i.e. Ianis Xenakis, Milton Babbitt, Robert Morris and Charles Wuorinen.)

19. On the Far Side of the Moon

659 $\text{♩} = 80$

Tenor (IFF) 5 3 4 5 4 4 3 3
On the far side of the moon Dark -

Bass (BUTT) 5 3 4 1 1 1 B 4
On the far side of the moon Dark -

Piano *mp* *p*
Ped. 5 4 1 A 9 9 6 0 A 8 2
0 0 1 4 5 5 6 9 2 5 3 7 8 8 B
0 1 5 5 9 2 3 8 B

662 4 2 7 6 A 9 6 5 3 2 8 7 7 4 1
T. er than the deep - est wood In a per - ma - nence of
B. 7 B 3 3 6 9 6 5 3 2 8 7 7 4 1
er than the deep - est wood In a per - ma - nence of

Pno 2 8 6 4 3 2 8 A
6 9 5
B A A 1 4 5 3 B 3 5 B 0 B 9 6
B A A 0 1 4 5 3 7 8 B 3 5 B 0 G 9 6
B

Babbitt did not write an opera as he himself said in an interview with Frank J. Oteri (December 1, 2001) published on-line at *New Music Box*,² the Web Magazine from the *American Music Center* "Oh boy. Um, not an opera. I had an opera planned. I had a chamber opera planned for electronics and voices. I'll never do that, I needed the synthesizer for that. I don't want to write an opera of any other

² <http://www.newmusicbox.org/page.nmbx?id=32fp10>

kind; I can't deal with the mechanisms there. When Herman Krawitz was general manager of the Met he suggested it, but he's no longer general manager of anything but New World Records, and they can't afford an opera. They can't afford a place to live."

On-line searches with the subject *The Far Side of the Moon* point either to the physical surface of the Earth's natural satellite, UFO reports or the Canadian Robert Lepage's 2003 film premiere with the same name. However, while Lepage is indeed a composer as well as a film director and producer, the subject of his art movie does not match the content of the lyrics of this work and is completely without dialogue. As such, this work could not be part of that production.

Further searches on *Khatam-Should* also point nowhere. However, the first match-entry on name and third entry on Google listing about *Chupwallas*³ leads to a review published by an anonymous reader on Amazon.com about *Haroun and the Sea of Stories*, a novel written in 1990 by Sir Salman Rushdie, a multi-award winner and world-wide published Indian novelist.⁴ The *Look Inside*® feature of Amazon allowing to read through the book and further research on Rushdie's biography revealed many other links to this work. As the review and the book mention clearly all the characters including the water genie IFF and the machine-hoopoe Butt, the identification of the source text for this work was completed.

³ <http://www.amazon.com/review/RRBU8BH11A2QX>

⁴ "Sir Salman Rushdie is the author of many novels including *Grimus*, *Midnight's Children*, *Shame*, *The Satanic Verses*, *The Moor's Last Sigh*, *The Ground Beneath Her Feet*, *Fury*, *Shalimar the Clown* and *The Enchantress of Florence*. He has also published works of non-fiction including, *The Jaguar Smile*, *Imaginary Homelands*, *The Wizard of Oz* and, as co-editor, *The Vintage Book of Short Stories*.

He has received many awards for his writing including the European Union's Aristeion Prize for Literature. He is a fellow of the Royal Society of Literature and Commandeur des Arts et des Lettres. In 1993 *Midnight's Children* was judged to be the 'Booker of Bookers', the best novel to have won the Booker Prize in its first 25 years. In June 2007 he received a knighthood in the Queen's Birthday Honours." Source: Amazon.com (http://www.amazon.com/Salman-Rushdie/e/B000APRXL4/ref=ntt_atthr_dp_pel_pop_1)

However, the lyrics are presented written in verses, which means that there is a different entity that adapted the story which could be the composer or a collaborator.

A first audio book was realized by Rushdie himself in 1991. However, a second rendition entitled *The Songbook of Haroun* was realized by Elisabeth Farnum in 2004, listing also Charles Wuorinen. The track listing includes *On the Far Side of the Moon* as #19.

1. *Zembla, Zenda, Zanadu*
2. *My Father Noticed None of This*
3. *Oh I Am the Ocean of Notions*
4. *Excuse Me If I Mention*
5. *If I Could Catch Those Words*
6. *Tell us a Story*
7. *Well, What's the Use?*
8. *I'm Empowered*
9. *We are Two Men*
10. *My Fault Again*
11. *Get on the Bus*
12. *Soldiers Everywhere*
13. *All the People Will vote for Me*
14. *The Moody Land*
15. *Now Means Now*
16. *A Person May Choose*
17. *I Wish*
18. *An Outlandish Knight*
19. *On the Far Side of the Moon*
20. *O Brave Machine.*

A final combined search on *Wuorinen* and *Haroun and the Sea of Stories* lead to a variety of sources on the opera written by Charles Wuorinen (on Rushdie's novel with a libretto adapted by James Fenton) which had its world premiere at New York City Opera on October 31: "an overflowing feast of witty, inventive music-theater."

Composer's website at www.charleswuorinen.com has a special link dedicated to this opera and several introductory articles about his music. After purchasing the music from Amazon.com, the sound of music confirmed the accounts on its serial descent. Then, the Charles Wuorinen article on *Grove Music Online* confirmed a connection with higher order serial architectural principles: "During the late 1960s Wuorinen began to reconsider the premises of Babbitt's time-point system, a way of linking the intervals of a 12-note row to points in musical time. He reasoned that if this linkage could influence musical time locally, as the determinant of rhythmic patterns, it might be able to influence formal design as well: small intervals could imply short musical sections, while large ones implied longer musical stretches. Thus, a background structure could be created that would be inextricably linked to the note row from which principal pitch ideas were derived. Wuorinen applied these ideas, with varying degrees of rigor, in most of his subsequent works; they became the basis of his compositional treatise, *Simple Composition* (New York, 1979/R) (Carucci 2010).

One particular feature of extending the serial principles in the time domain is the appearance of repeated pitches which otherwise would create the impression of laxity in applying strict serial conventions. For example, the bass doubles the tenor at the end the first verse with the following set of pitches:

(G Clef) 2 8 7 (7) 4 1 B 0 A 9 6 5 (4) (2)

In a per - ma - nence of T. B gloom Lives the Mas - ter Khat - tam - Shud.

The set is an incomplete series of eleven elements elliptic of pitch class 3 (Eb) found at the end of the precedent line which was quite abundant in redundant editions of Eb. The piano part contains pitch class 3, however embedded in the harmonic structure, and consequently a case for it belonging to the tenor set has no solid foundation.

662

T. In a per - ma - nence of

B. In a per - ma - nence of

Pno

As seen on the excerpt analyzed on page 7, the piano part itself exhibits similar traits as it also eludes a clear-cut formation of a 12-tone series. For instance, the beginning three measures on the bass staff renders the following set: 0145(5)692(5)(2)3[78] which is again an incomplete series of ten elements from which the last two [78] seem to serve another function as well (the contour retroversion response to the voice entrance). Even with the addition of the next two elements [8B] the series would be incomplete as (8) is redundant. Pitch class [A] appears only in the next measure and when it does, it appears three times in a row (page 7).

Aside from the apparently random but copious repetition of given pitch classes, there are two particular features of this score that prompted to the time-point serial treatment as described by Wuorinen in his book:

- piano, second measure right hand
- time signature frequent change

EXAMPLE 94

pitch intervals: 4 = 4 = 4 = 4 = 4 = 4 = 4

time intervals: 4 = 4 = 4 = 4 = 4 = 4 = 4

The example provided by Wuorinen (pg. 132, Chapter 10, Rhythmic Organization: The Time-Point System) illustrates how the same pitch interval can be rendered out in different time interval configurations. Particularly the 3rd and 4th solution were interesting as they resemble very much the writing on the second measure of the piano part:

Piano

mp *p*

Red.

That kind of voicing does not appear anywhere else in the score and, as such, cannot be treated as a style for voicing. The same principle applied to note value is exemplified below (page 134 in the same book):

EXAMPLE 96-c

time points *mod* 12: 0 3 2 4 5 1 11 8 9 7 6 10

time points not modularly reduced: 0 3 14 16 17 25 35 44 45 55 66 70

total span = 70 ♩_s

The same principle applied to the time signature domain would give rise to frequent changes in meter as a direct consequence or in order to unify the score appearance of the horizontal rendering of multiple layers of serial elements.

Given the time needed to master the applications of such system I would consider all these elements in order to decode the underlying structure which as far as my intuition is concerned controls all aspects of this composition including form, harmony, melody, repetitive structures, pitch distribution, row formation and dissolution in the overall architectural design of the piece and the relationship with a possible master row that controls all these different parts of the opera.

Up to 48 different rows can be controlled at different degrees of variability in a way in which to maintain structural unity while providing at the same time new material for each section, part or moment in the whole opera.

The examples provided by Wuorinen describe the time-point system first developed by Milton Babbitt and exemplified further (Wuorinen, page 136):

EXAMPLE 98-a



is expressed as a time-point set:

EXAMPLE 98-b



the retrograde of this latter is:

EXAMPLE 98-c



According to this example, it becomes clear that repeated notes in the score could be the result of several factors including but not limited to:

- time signature constraints;
- consideration of agogic accent or number of syllables per available note value when using text;
- the intent to add rhythmic variation;
- the aggregate or array configuration for pitch displacement which is prone to create common tones that could be treated in many different ways including repeating the same tone within a given length value;
- Piano reduction from a score in which the different pitches featured different instruments and signified different layers of row elaboration.

For an extended analysis, the next step could unify all values, extract the numeric values of every layer of information (pitch occurrence, time signature, note values) and organize the data to see if the analysis can reach a more subtle level of overall control of this composition.

This score was used for the songbook. The score used in the opera could shed more light on the compositional technique used and answer other questions regarding how all elements relate with each other in the greater scope of its overall structure.