

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

AN ANALYSIS OF GUSTAV HOLST'S *THE PLANETS*

A thesis submitted in partial fulfillment of the requirements  
for the degree of Master of Arts in Music

by

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In memory of my beloved teacher

Dr. George Joseph Skapski

## TABLE OF CONTENTS

	Page
Signatures	ii
Dedication	iii
Abstract	v
An introduction to Holst's <i>The Planets</i>	1
Analysis -	
Mars, the Bringer of War	6
Venus, the Bringer of Peace	31
Mercury, the Winged Messenger	43
Jupiter, the Bringer of Jollity	74
Saturn, the Bringer of Old Age	119
Uranus, the Magician	146
Neptune, the Mystic	183
Conclusion	206
Bibliography	210
Orchestration	212

ABSTRACT

AN ANALYSIS OF GUSTAV HOLST'S *THE PLANETS*

by

Kanokrut Leelasiri

This thesis contains a brief historical background and the musical analysis of *The Planets* by Gustav Holst.

## AN INTRODUCTION TO HOLST'S *THE PLANETS*

*The Planets* is arguably the best recognized and successful composition of Gustav Holst (1874-1934). Holst composed some good works after *The Planets*, however none of them attained the same level of recognition as *The Planets*. Many compositions preceding *The Planets* are far from being successful. Although Holst admitted their failure, these compositions should not be considered unsuccessful. Holst's development of style, technique and compositional ideas can be observed in all his work. We can see the influences of these earlier compositions in *The Planets* and in the compositions that followed. Additionally, Holst tried to test some of his ideas for *The Planets* in some shorter works composed around the same time as *The Planets*. For example, the harmonic ostinatos similar to those used in *The Planets* can be seen in *Hymns from the Rig Veda, Op.24 No.1, 3 and 4*.

Before Holst wrote *The Planets*, his frequent failures made him desperate to find a subject that could be used for his compositional ideas. Holst once wrote to a friend and admitted that, "*I only study things that suggest music to me. That's why I worried at Sanskrit. Then recently the character of each planet suggested lots to me, and I have been studying astrology fairly closely.*"<sup>1</sup> The author believes the reference to Sanskrit related to his previous compositions *Sita* (1900), *Savitri* (1908) and *Choral Hymns from the Rig Veda* (1908-10) which he did not consider successful works. The last sentence of this statement suggests a new subject for composition through his interest in astrology.

<sup>1</sup> Imogen Holst, *Gustav Holst : A Biography*, 2nd ed. (London: Oxford University Press, 1974), 43.

Holst's interest in astrology increased when he met Clifford Bax in March 1913 during his visit to Majorca, Spain, with Balfour Gardiner. But the person who originally introduced Holst to astrology was George R. S. Mead (1863-1933). One of Mead's friends was Alan Leo (1860-1917), the pioneer astrologer of the early twentieth century, who published several books on the subject. Holst owned two of Leo's books, *How to Judge A Nativity* and *The Art of Synthesis*. It is this book, *The Art of Synthesis* (1912), that is believed to have inspired Holst to write *The Planets*.

According to astrology, each planet in our solar system represents a different character. In *The Art of Synthesis*, Leo devoted a chapter to each planet. The author believes that this model gave Holst the idea to title each movement of *The Planets* in the same or similar manner. (See Example 1.) Leo titles his Chapter 12 "Neptune, the Mystic" which is exactly what Holst calls his seventh movement. Leo calls his Chapter 6 "Mercury, the Thinker." As part of this chapter Leo refers to Mercury as "the Winged Messenger of the Gods" which is almost exactly what Holst later calls his third movement "Mercury, the Winged Messenger."

Chapters of Leo's *The Art of Synthesis* follow the order of planets in the actual solar system according to their distances from the Sun, excluding Earth. Both Leo and Holst did not include Pluto because it was not discovered until 1930. The first three movements of Holst's *The Planets* have a different order from Leo's, however, the order of last four planets is exactly the same. Holst starts *The Planets* with Mars, then Venus and Mercury. One of the reasons why Holst starts his composition with Mars might be that Leo wrote this quote in Chapter 8 of *The Art of Synthesis*: "*In ancient Roman days Mars was lord over the New Year, their first month, March, being ruled by this planet; and even in our times he is the lord over the first month in the astrological year,*

*governing the sign Aries.*"<sup>2</sup> Another reason might be that Mars is the closest planet to Earth.

#### Example 1

##### Leo's *The Art of Synthesis*

- Chapter 6 - Mercury, the Thinker
- Chapter 7 - Venus, the Unifier
- Chapter 8 - Mars, the Energizer
- Chapter 9 - Jupiter, the Uplifter
- Chapter 10 - Saturn, the Subduer
- Chapter 11 - Uranus, the Awakener
- Chapter 12 - Neptune, the Mystic

##### Holst's *The Planets*

- I Mars, the Bringer of War
- II Venus, the Bringer of Peace
- III Mercury, the Winged Messenger
- IV Jupiter, the Bringer of Jollity
- V Saturn, the Bringer of Old Age
- VI Uranus, the Magician
- VII Neptune, the Mystic

Many people believe Holst wrote Mars because of the First World War, but Holst strongly denied this assumption. Holst once confided in a friend, "*I had the whole of Mars fixed in my mind before August, and the only planet I*

<sup>2</sup> Alan Leo, *The Art Of Synthesis*, 6th ed. (New York: Astrologer's Library, 1983), 74.



was quite certain I was thinking about in the second half of 1914 was Venus—the bringer of peace.”<sup>3</sup> The major incident that started the First World War did not come until June 28, 1914, when Francis Ferdinand, heir to the Austro-Hungarian crown, and his wife Sophie, duchess of Hohenberg, were assassinated in Sarajevo, Bosnia. Holst in fact had already started writing Mars in May 1914.

There are always political tensions in various parts of the world no matter what period in history. No one usually expects a World War, but some master astrologers did predict it. One of those who foretold the First World War is the famous French astrologer Nostradamus (1503-1566) many of whose prophecies have come true. Holst was an amateur astrologer whom the author does not believe possessed the ability of prediction. There is no evidence that Holst ever read Nostradamus’s book called *Centuries* (1555) or the works of others who predicted the coming of the First World War. Therefore, the author does not believe that Holst anticipated World War I by writing Mars.

Holst wrote Venus in August of the same year, 1914, and it was followed by Jupiter. Even though Jupiter was originally written to be the third movement, Holst later ordered Jupiter to be the fourth. Holst wrote Saturn, Uranus and Neptune in the following year, 1915. It was not until the beginning of 1916 that Holst wrote Mercury, the last movement to be completed. Holst later reordered Mercury to be the third movement.

Holst composed his works at the piano. Even with the orchestra sound in mind, Holst originally wrote *The Planets* in a 2-piano version. He marked the 2-piano version with red ink to indicate the instrumentation. Holst must

<sup>3</sup> Imogen Holst, *Holst* (London: Faber & Faber, 1974), 49-50.

have realized that in order to fully express the true character of each planet, he needed a large orchestra to create this sound.

Because of his teaching responsibilities at St. Paul's girls school, it took Holst 2 years to complete *The Planets* and another year to finish the orchestral scoring. At that time, Holst suffered from painful neuritis<sup>4</sup> that made it impossible for him to write the score by himself. Holst enlisted the help of two colleagues, Vally Lasker and Nora Day, and one of his pupils, Jane Joseph, to complete the score.

Holst originally called this composition *Seven Pieces for Large Orchestra* in parody of Schoenberg's *Five Pieces for Orchestra*. Holst probably had the chance to hear the Schoenberg piece when it was debuted in London and conducted by Schoenberg himself on 19 January 1914 at the Queen's Hall. It is unknown when Holst changed the name of the composition to *The Planets*, however, the name had been changed by its first private performance, 29 September 1918.

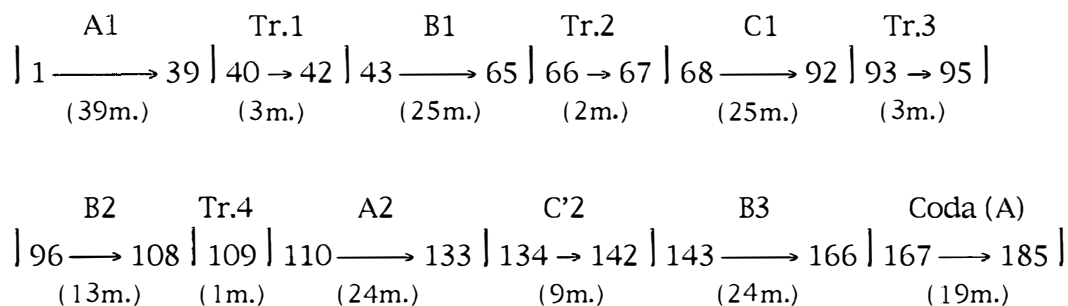
<sup>4</sup> **neuritis** *n.* inflammation of a nerve or nerves, often associated with a degenerative process, and accompanied by changes in sensory and motor activity in the region of the affected nerve.



These three patterns and their variations help the author differentiate the different sections of Mars. However, since these patterns are sometimes overlapping, there can be several ways to interpret the musical form of Mars.

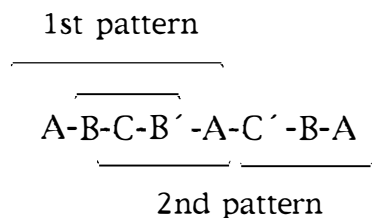
In Example 5, the author divides Mars into seven sections, four transitions and a coda.

### Example 5



If we are to believe that the Coda is a third A section, the first conclusion that could be drawn is that the form is irregular, A-B-C-B'-A-C'-B-A. In this case, we will discover there are two distinctive patterns within these 8 sections. (See Example 6.) The first pattern is the arch form or the palindrome A-B-C-B'-A. The second pattern is a repetition of the last three sections of the first pattern, C-B-A.

### Example 6



Without the Coda as the third A section, the second conclusion of the form could be A-B-C-B'-A-C'-B. In this case, the seven sections could be

combined to form two larger sections as a binary form. (See Example 7a.) We could also group them into three sections. In this case, this 3-part form is similar to the sonata form. The first section A-B is the exposition with two themes. The second section C-B' is the development with a harmonic pattern different from the B1 and B3 sections, and the introduction of new material in the C section. The third section A(-C')-B is the recapitulation with the very distinct return of the A in its original form. There are several ways to interpret the overall musical form of Mars. Composers are not mechanical in their use of a particular musical form, therefore, many interpretations are possible.

#### Example 7

a). | A-B-C-B' | A-C' -B |

b). | A-B | C-B' | A(-C')-B |

#### Melodic Analysis

The first theme in Mars does not start until m.43 in the tenor tuba. (See Example 3.) It is a 2-measure theme composed of a series of dotted quarter notes and eighth notes descending and ascending by half steps or whole steps.

The second theme appears for the first time in mm.68-70. It appears in two parts. The first part is performed by the solo tenor tuba from m.68 to m.70. The second part of the theme comes as an answer by the soli trumpets in m.70. (See Example 4.)

In m.84, the first half of the second theme from m.68 reappears in the solo tenor tuba and becomes a sequential passage by repeating the note C and

changing the upper notes chromatically from E<sup>b</sup> to E, F and F<sup>#</sup> from m.85 to m.90. A similar thing happens in trumpets 1 and 2 considering their exact imitation in m.85 with m.84 in the tenor tuba, then varies itself in the same way from E<sup>b</sup> to E and F from m.86 to m.90 with a slight difference in the rhythm. (See Example 8.)

Example 8

The musical score for Example 8 consists of four staves. The top two staves are for Trp. in C and Ten. Tub. in Bb, starting at measure 84. The bottom two staves continue the Ten. Tub. in Bb part, starting at measure 88. The music features a chromatic ascent in the upper notes and includes triplet markings.

Holst repeats the same idea from the second theme in mm.136-143. This time in the tenor tuba from m.138, he keeps repeating the note G and ascending the upper notes chromatically from B<sup>b</sup>, B, C, D<sup>b</sup> and descending the last one to C in m.143. He also imitates almost the whole pattern one measure later in the soli trumpets 1 and 2 from m.139 to m.142. (See Example 9.)

Example 9

The musical score for Example 9 consists of four staves. The top two staves are for Trp. in C and Ten. Tub. in Bb, starting at measure 136. The bottom two staves continue the Ten. Tub. in Bb part, starting at measure 140. The music features a chromatic ascent in the upper notes and includes triplet markings. The top staff is marked 'a 2 Soli' and the second staff is marked 'Solo'.

The use of scale is one of Holst's favorite compositional devices. In m.79, the ascending scale has been used in unison by clarinets, violins 2 and violas with the partial doubling by oboes, piccolos and flutes. (See Example 10.) However, in the 2-piano version, the note B on the fifth beat was written as B<sup>b</sup>.

Example 10

The image displays a musical score for Example 10, covering measures 79, 80, and 81. The score is arranged in six staves, from top to bottom: Piccolo (Picc.), Flute (Fl.), Oboe (Ob.), Clarinet in Bb (Cl. in Bb), Violin 2 (Vn. 2), and Viola (Va.). The key signature is one flat (Bb) and the time signature is 4/4. In measure 79, the Piccolo and Flute parts begin with a whole note G4, marked with an 'a' and a '2'. The Oboe part begins with a whole note G4, marked with an 'a' and a '2'. The Clarinet in Bb part begins with a whole note G4, marked with an 'a' and a '3'. The Violin 2 and Viola parts begin with a whole note G4. In measure 80, all parts play an ascending eighth-note scale starting on G4. The Piccolo and Flute parts are marked with an 'a' and a '2'. The Oboe part is marked with an 'a' and a '2'. The Clarinet in Bb part is marked with an 'a' and a '3'. The Violin 2 and Viola parts are marked with an 'a' and a '2'. In measure 81, the Piccolo and Flute parts play a whole note G5, marked with a '5'. The Oboe part plays a whole note G5, marked with a '5'. The Clarinet in Bb part plays a whole note G5, marked with a '5'. The Violin 2 and Viola parts play a whole note G5, marked with a '5'. The score is written in a standard musical notation style with a treble clef for the upper staves and a bass clef for the lower staves.

The author believes that m.79 is a C ascending melodic minor scale that starts on the note G and ascends three octaves to the note F. This is further supported by a review of the Curwen Edition score prepared by Imogen Holst (Gustav Holst's daughter) and Colin Matthews where m.79 is notated with a B natural.

The bass line scale is another composition device Holst liked to use. He uses a chromatic scale in the double basses from m.73 to m.75 starting with the note G down to G<sup>b</sup>, F and up to F#, G, G# and A. (See Example 11.)





The rhythmic ostinato drops out for 38 measures then returns in m.96 until m.108 with the 5/2 meter. The ostinato plays on the note G# from m.100 to m.103 and changes to the note B from m.104 to m.108. This ostinato returns to the 5/4 meter on the note G from m.110 to m.158. At the end, the ostinato does reappear briefly in 3/4 meter on the note C from m. 178 to m.181 as a reminder of its importance.

Examples 13 a-d represent variations of the primitive rhythmic ostinato. Example 13a exhibits the ostinato pattern in its original form in m.1 in 5/4 meter. Example 13b displays the rhythm in 5/2 meter when it returns in mm.96-99. Notice that the quarter-note on the third beat is missing and is replaced by two half-rests. There is also another half-rest added to the end. Example 13c displays the ostinato pattern that appears in mm.104-108. It is still in 5/2 meter similar to Example 13b. However, by comparing Example 13a and 13c, we can see there is a quarter-note and two half-rests added into the middle. Example 13d displays the ostinato pattern as it appears in mm.178-181. This time it appears in 3/4 meter. Because of the 3/4 meter, two measures are required to finish the pattern. By comparing to the original pattern, in mm.178-179, the quarter note on the third beat is replaced by two quarter-rests. In mm.180-181, Holst repeats the rhythm in mm.178-179 but reverses the order. He starts with the rhythm in m.179 and followed by the rhythm in m.178. Holst also wants the rhythm to slow down from m.178 to the end by indicating "Rall. al Fine." on the score.

### Example 13

a). 

b). 

c). 

d). 

One of Holst's favorite compositional techniques is the hemiola. The first time he uses the hemiola in *The Planets* is in the first theme of Mars. (See Example 14a.) This is a clear example of the hemiola of 5/4 meter with the 5/2 meter effect which later returns in 5/2 meter in m.96. (See Example 14b.)

### Example 14

a).  Ten. Tub. in Bb

b).  Bn

## Harmonic Analysis

For a quick view of what the tonality of a musical composition might be, one can look at the end or the very last chord of the music. In Mars, Holst ends with the C chord using only the root and the fifth, and without the third. Therefore, the chord could be interpreted as either C-major or C-minor. In the case of Mars it is both. Holst moves between the GM chord and the D<sup>b</sup>M chord. The GM chord is the dominant to the tonic of both C-major and C-minor. The D<sup>b</sup>M chord is also the Neapolitan chord of both tonics.

In the A and B sections, Holst uses only triads which follow none of the traditional harmonic progressions according to the diatonic scale degree. In fact, in the B sections, the chords he uses are mainly major triads where the progression consists mainly of the minor 2nd or the major 2nd from one chord to another.

In both of the A sections, D<sup>b</sup>-major appears to be the tonal center together with the basso ostinato on the note G. Both the D<sup>b</sup>-major and the basso ostinato on the note G appear to promote the idea of bitonality.

Holst begins Mars with the orchestra playing a rhythmic ostinato on the note G in both unison and octave. He adds a melodic line by having bassoons and horns 5 and 6 play a sustained note on G in m.3 which rises to the note D on the fourth beat in m.4 and descends to the note D<sup>b</sup> in m.5. The whole process repeats from m.6 through the first three beats of m.10. From the fourth beat of m.10 to the end of m.13, six sets of intervals are added based on perfect fifths and one interval set based on a diminished fifth. The first interval set is A<sup>b</sup>-E<sup>b</sup> in m.10. The next interval sets are G-D in m.11, G-D<sup>b</sup> and A<sup>b</sup>-E<sup>b</sup> in m.12, and G-D in m.13.

In the first A section, Holst uses only five complete triads; D<sup>b</sup>M, AM,

B<sup>b</sup>m, A<sup>b</sup>M and BM. In the second A section, he uses only four complete triads; D<sup>b</sup>M, A<sup>b</sup>M, B<sup>b</sup>m and AM. Since Holst does not use traditional harmonic progression, it seems inappropriate to think of the chords D<sup>b</sup>M-A<sup>b</sup>M-B<sup>b</sup>m as I-V-vi of D<sup>b</sup>-major. The AM and BM chords could be interpreted as IV-V of E-major, of which the tonic chord does not exist in the A sections. Example 15 displays the chords used in both of the A sections.

### Example 15

Section A1 - chord analysis mm.1-39

| | | | | | | | | | | | | | D<sup>b</sup> | D<sup>b</sup> | D<sup>b</sup> | | | | | D<sup>b</sup> | A |  
1

| D<sup>b</sup> B<sup>b</sup>m | A | A<sup>b</sup> | B<sup>b</sup>m | A<sup>b</sup> | B<sup>b</sup>m D<sup>b</sup> | B | B D<sup>b</sup> | B | B D<sup>b</sup> | B D<sup>b</sup> | B | B | B | B | B | B |  
23

Section A2 - chord analysis mm.110-133

| | | | | | | | | | | | | | | D<sup>b</sup> | D<sup>b</sup> | D<sup>b</sup> | A | B<sup>b</sup>m | A | A<sup>b</sup> | B<sup>b</sup>m |  
110

| A<sup>b</sup> | B<sup>b</sup>m D<sup>b</sup> |  
132

In the B sections, a chromatic harmonic progression surrounding the tonal center of C-major is used. Example 16 displays the chords used in all three of the B sections. There are eight groups of chordal repetitions which the author labels as a, b, c, d, e, f, g and h.



Section B3 - chord analysis mm.143-166

<u>f</u>	<u>f</u>	<u>g</u>
A <sup>b</sup> G F# G A <sup>b</sup>   B <sup>b</sup> C D E <sup>b</sup> D   Cm Cm	A <sup>b</sup> G F# G A <sup>b</sup>   B <sup>b</sup> C D E <sup>b</sup> D	G F# G E F#
143		
<u>g</u>	<u>a</u>	<u>a</u>
G F# G E D#m   G B Gm F# G	D <sup>b</sup> C B C D <sup>b</sup>   E <sup>b</sup> F G A <sup>b</sup> G	D <sup>b</sup> C B C D <sup>b</sup>   E <sup>b</sup> F G A <sup>b</sup> G
149		
<u>b</u>	<u>c</u>	<u>f</u>
C B C A B   D C# D B C	G <sup>b</sup> F G <sup>b</sup> E F   D E <sup>b</sup> C A <sup>b</sup> G	F# G A <sup>b</sup> B <sup>b</sup> C   D E <sup>b</sup> D B <sup>b</sup> A
155		
	<u>h</u>	<u>h</u>
G# A B <sup>b</sup> C D   E F E D <sup>b</sup> C	B B <sup>b</sup> B C D <sup>b</sup> C   B B <sup>b</sup> B C D <sup>b</sup> C	B B <sup>b</sup> B C D <sup>b</sup>   E <sup>b</sup> F G A <sup>b</sup> m G
161		

In addition to these eight groups, there is a larger section of chordal repetition between the first and the third B sections. The chords in the third B section from m.151 to the third chord in m.158 are identical to the chords in the first B section from m.50 to the third chord in m.57. (See Example 17.)

Example 17

Chord analysis mm.50-57

D <sup>b</sup> C B C D <sup>b</sup>   E <sup>b</sup> F G A <sup>b</sup> G	D <sup>b</sup> C B C D <sup>b</sup>   E <sup>b</sup> F G A <sup>b</sup> G	C B C A B
D C# D B C	G <sup>b</sup> F G <sup>b</sup> E F	D E <sup>b</sup> C D <sup>b</sup> C

Chord analysis mm.151-158

D <sup>b</sup> C B C D <sup>b</sup>   E <sup>b</sup> F G A <sup>b</sup> G	D <sup>b</sup> C B C D <sup>b</sup>   E <sup>b</sup> F G A <sup>b</sup> G	C B C A B
D C# D B C	G <sup>b</sup> F G <sup>b</sup> E F	D E <sup>b</sup> C A <sup>b</sup> G



Example 20 displays the chords used in all four of the Transition sections.

### Example 20

Section Transition 1 - chord analysis mm.40-42

| D<sup>b</sup>M | D<sup>b</sup>M | D<sup>b</sup>M |  
40

Section Transition 2 - chord analysis mm.66-67

| E<sup>b</sup>M | E<sup>b</sup>M |  
66

Section Transition 3 - chord analysis mm.93-95

| F<sup>#</sup>°9 | F<sup>#</sup>°9 | F F<sup>#</sup>°7 |  
93

Section Transition 4 - chord analysis m.109

| |  
109

In observing the interval between each chord in the B sections, the author discovers several identical patterns among these chordal repetition groups. The first pattern is the chords in groups a and f plus two other sets of chords which do not belong to any repetition group. (See Example 21.) The first set is from the fourth chord in m.59 to the third chord in m.61, and the second set is from the fourth chord in m.160 to the third chord in m.162. Above and between the chords are numbers along with + and - symbols. The numbers indicate the interval in semitones, the + and - symbols indicate whether the direction to the next note is higher or lower. Notice that the interval patterns to these four sets of chords are identical. Furthermore, the first chord of each set, D<sup>b</sup>-A<sup>b</sup>-E<sup>b</sup>-B<sup>b</sup> indicates a perfect fifth transposition.



### Example 21

Chord and interval analysis of 'group a' mm.43-44

$$\begin{array}{cccccccc} -1 & -1 & +1 & +1 & +2 & +2 & +2 & +1 & -1 \\ | D^b & C & B & C & D^b & | E^b & F & G & A^b G | \end{array}$$

Chord and interval analysis of 'group f' mm.143-144

$$\begin{array}{cccccccc} -1 & -1 & +1 & +1 & +2 & +2 & +2 & +1 & -1 \\ | A^b & G & F\#G & A^b & | B^b & C & D & E^b D | \end{array}$$

Chord and interval analysis mm.59-61

$$\begin{array}{cccccccc} -1 & -1 & +1 & +1 & +2 & +2 & +2 & +1 & -1 \\ | G & A^b & G & E^b D & | C\#D & E^b & F & G & | A & B^b A & G^b & F | \end{array}$$

Chord and interval analysis mm.160-162

$$\begin{array}{cccccccc} -1 & -1 & +1 & +1 & +2 & +2 & +2 & +1 & -1 \\ | D & E^b D & B^b A & | G\#A & B^b & C & D & | E & F & E & D^b C | \end{array}$$

The second pattern is between chords from m.47 to m.49 of the first B section and chords from m.148 to m.150 of the third B section. (See Example 22.) One set of chords starts with C and the other set starts with G. This is another perfect fifth transposition.

### Example 22

Chord and interval analysis mm.47-49

$$\begin{array}{cccccccc} -1 & +1 & -3 & +2 & +1 & -1 & +1 & -3 & -1 & +4 & +4 & -4 & -1 & +1 \\ | C & B & C & A & B & | C & B & C & A^m & G\#m & | C & E & C^m & B & C | \end{array}$$

Chord and interval analysis mm.148-150

$$\begin{array}{cccccccc} -1 & +1 & -3 & +2 & +1 & -1 & +1 & -3 & -1 & +4 & +4 & -4 & -1 & +1 \\ | G & F\#G & E & F\# & | G & F\#G & E & D\#m & | G & B & G^m & F\#G & | \end{array}$$

The third pattern is between the first B section, from the fourth chord in m.57 to the end of m.65, and the third B section, from the fourth chord in m.158 to the end of m.166. (See Example 23.) One set starts with D<sup>b</sup> and the other starts with A<sup>b</sup>. This is also another perfect fifth transposition.

### Example 23

Chord and interval analysis mm.57-65

-1 -1 +1 +1 +2 +2 +2 +1 -1 -4 -1 -1 +1 +1 +2 +2 +2 +1 -1 -3 -1 -1  
 | D E<sup>b</sup> C D<sup>b</sup> C | B C D<sup>b</sup> E<sup>b</sup> F | G A<sup>b</sup> G E<sup>b</sup> D | C<sup>#</sup> D E<sup>b</sup> F G | A B<sup>b</sup> A G<sup>b</sup> F |

-1 +1 +1 +1 -1 -1 -1 +1 +1 +1 -1 -1 -1 +1 +1 +1 +2 +2 +2 +1 -1  
 | E D<sup>#</sup> E F G<sup>b</sup> F | E D<sup>#</sup> E F G<sup>b</sup> F | E D<sup>#</sup> E F G<sup>b</sup> | A<sup>b</sup> B<sup>b</sup> C D<sup>b</sup> C |

Chord and interval analysis mm.158-166

-1 -1 +1 +1 +2 +2 +2 +1 -1 -4 -1 -1 +1 +1 +2 +2 +2 +1 -1 -3 -1 -1  
 | D E<sup>b</sup> C A<sup>b</sup> G | F<sup>#</sup> G A<sup>b</sup> B<sup>b</sup> C | D E<sup>b</sup> D B<sup>b</sup> A | G<sup>#</sup> A B<sup>b</sup> C D | E F E D<sup>b</sup> C |

-1 +1 +1 +1 -1 -1 -1 +1 +1 +1 -1 -1 -1 +1 +1 +1 +2 +2 +2 +1 -1  
 | B B<sup>b</sup> B C D<sup>b</sup> C | B B<sup>b</sup> B C D<sup>b</sup> C | B B<sup>b</sup> B C D<sup>b</sup> | E<sup>b</sup> F G A<sup>b</sup> G |

The fourth pattern is between groups d and h. (See Example 24.) Group d appears in mm.61-62 and group h appears in mm.162-163 which are both within the third pattern. While group d starts with G<sup>b</sup>M, group h starts with D<sup>b</sup>M. This is a perfect fifth transposition.

### Example 24

Chord and interval analysis of 'group d' mm.61-62

$$\begin{array}{cccccccc} & & -1 & -1 & -1 & +1 & +1 & \\ | & A & B^b & A & G^b & F & | & E & D^\# & E & F & G^b & F & | \end{array}$$

Chord and interval analysis of 'group h' mm.162-163

$$\begin{array}{cccccccc} & & -1 & -1 & -1 & +1 & +1 & \\ | & E & F & E & D^b & C & | & B & B^b & B & C & D^b & C & | \end{array}$$

There is an interval pattern between chords from m.104 to m.107 in the second B section which are derived from the flowing melody at the beginning of the same section from m.96 to m.99. (See Example 25.)

### Example 25

Melody and interval analysis mm.96-99

$$\begin{array}{cccccccccccccccc} & -1 & -1 & +1 & +1 & +2 & +1 & +1 & +1 & -1 & -4 & -1 & -1 & +1 & +1 & +2 & +2 & +2 & +2 & -1 & +5 \\ | & A & G^\# & F^\times & G^\# & A & B & B^\# & C^\# & D & C^\# & | & A & G^\# & F^\times & G^\# & A & B & C^\# & D^\# & E^\# & E & | \end{array}$$

$$\begin{array}{cccccccccccccccc} & -1 & -1 & +1 & +1 & +2 & +3 & -1 & -1 & +1 & +4 & -1 & -1 & +1 & +1 & +1 & +3 & -1 & -1 & +1 \\ | & A & G^\# & F^\times & G^\# & A & B & D & C^\# & B^\# & C^\# & | & E^\# & E & D^\# & E & E^\# & F^\# & A & G^\# & F^\times & G^\# & | \end{array}$$

Chord and interval analysis mm.104-107

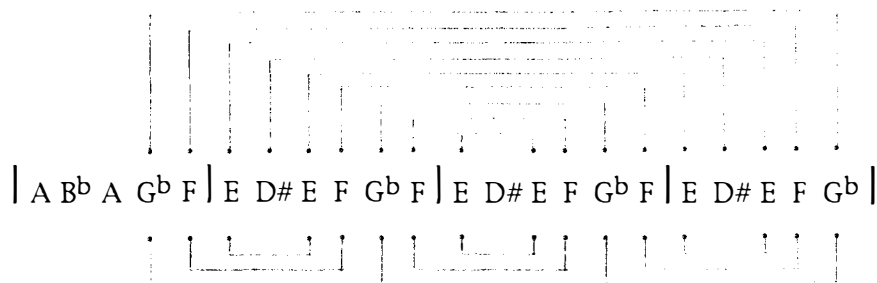
$$\begin{array}{cccccccccccccccc} & -1 & -1 & +1 & +1 & +2 & +1 & +1 & +1 & -1 & -4 & -1 & -1 & +1 & +1 & +2 & +2 & +2 & +2 & -1 & +5 \\ | & C & B & B^b & B & C & D & D^\# & E & F & E & | & C & B & B^b & B & C & D & E & F^\# & G^\# & G & | \end{array}$$

$$\begin{array}{cccccccccccccccc} & -1 & -1 & +1 & +1 & +2 & +3 & -1 & -1 & +1 & +4 & -1 & -1 & +1 & +1 & +1 & +3 & -1 & -1 & +1 \\ | & C & B & B^b & B & C & D & F & E & D^\# & E & | & A^b & G & F^\# & G & A^b & A & C & B & A^\# & B & | \end{array}$$

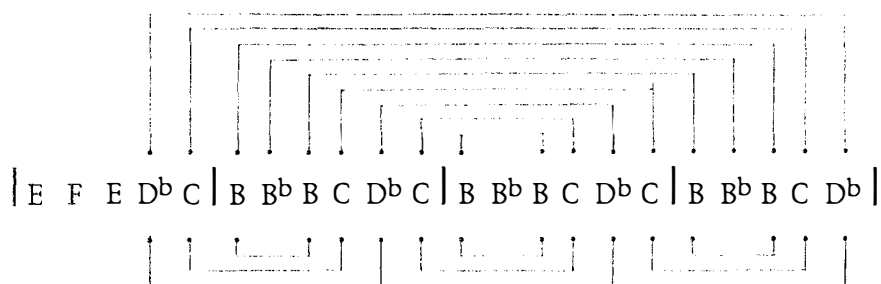
Additionally, there are arch forms or palindrome patterns inside the third and fourth interval patterns from m.61 to m.64. These palindrome patterns also occur in mm.162-165 because the interval patterns in these two areas are identical. (See Example 26.)

## Example 26

Chord analysis mm.61-64



Chord analysis mm.162-165



### Other Aspects

Since there are both 2-piano and orchestral versions of *The Planets* available, the author feels that a comparison between the two versions is appropriate. The comparison shows how much had been changed from Holst's original composition on the piano to the final orchestral version.

As the result of the harmonic analysis, the author discovers several areas of harmonic inconsistency between the two versions.

The first area is in m.21 on the first beat. In the 2-piano version, besides the rhythmic ostinato on the note G, Holst has an octave of the dotted half-note on the note D<sup>♭</sup>. In the orchestral version, the octave of the dotted half-note was written D<sup>♭</sup>-A<sup>♭</sup>-F which is the D<sup>♭</sup>M chord instead. (See Example

27.)

### Example 27

#### 2-Piano Version

Musical score for the 2-Piano Version of Example 27, measures 21-24. The score is written for two pianos in 5/4 time. The upper piano part (treble clef) begins with a whole rest in measure 21, followed by a half note G<sub>2</sub> in measure 22, a half note F<sub>2</sub> in measure 23, and a half note E<sub>2</sub> in measure 24. The lower piano part (bass clef) plays a rhythmic pattern of quarter notes: G<sub>2</sub> (21), F<sub>2</sub> (22), E<sub>2</sub> (23), D<sub>2</sub> (24). The key signature has one flat (B-flat).

#### Orchestral Version

Musical score for the Orchestral Version of Example 27, measures 21-24. The score is written for an orchestra in 5/4 time. The instruments and their parts are: Tenor Trumpet (Ten. Trb.) and Bass Trumpet (Bass Trb.) play a half note G<sub>2</sub> in measure 21, followed by a half note F<sub>2</sub> in measure 22, and a half note E<sub>2</sub> in measure 23. The Timpani (Timp) plays a rhythmic pattern of quarter notes: G<sub>2</sub> (21), F<sub>2</sub> (22), E<sub>2</sub> (23), D<sub>2</sub> (24). The Gong plays a half note G<sub>2</sub> in measure 21, followed by a half note F<sub>2</sub> in measure 22, and a half note E<sub>2</sub> in measure 23. The Horn I (Hp. I) and Horn II (Hp. II) play a rhythmic pattern of quarter notes: G<sub>2</sub> (21), F<sub>2</sub> (22), E<sub>2</sub> (23), D<sub>2</sub> (24). The Violins (Vns.) play a rhythmic pattern of quarter notes: G<sub>2</sub> (21), F<sub>2</sub> (22), E<sub>2</sub> (23), D<sub>2</sub> (24). The Violas (Vc.) and Double Basses (Db.) play a rhythmic pattern of quarter notes: G<sub>2</sub> (21), F<sub>2</sub> (22), E<sub>2</sub> (23), D<sub>2</sub> (24). The key signature has one flat (B-flat).

The second area is on the fourth beat in m.22. In the 2-piano version, Holst has the octave of the half-note E. In the orchestral version, the note A was added. (See Example 28.)

### Example 28

#### 2-Piano Version

Musical score for the 2-Piano Version of Example 28, showing measures 22-23. The score is written for two pianos (p) in 5/4 time. Measure 22 features a half-note E in the right hand and a half-note E in the left hand. Measure 23 features a half-note E in the right hand and a half-note E in the left hand.

#### Orchestral Version

Musical score for the Orchestral Version of Example 28, showing measures 22-23. The score is written for an orchestra in 5/4 time. The instruments and their parts are:

- Ten. Trb. (Tenor Trumpet): Measure 22 has a half-note E, measure 23 has a half-note E.
- Bass Trb. (Bass Trumpet): Measure 22 has a half-note E, measure 23 has a half-note E.
- Timp (Timpani): Measure 22 has a half-note E, measure 23 has a half-note E.
- Gong: Measure 22 has a half-note E, measure 23 has a half-note E.
- Hp I (Harp I): Measure 22 has a half-note E, measure 23 has a half-note E.
- Hp II (Harp II): Measure 22 has a half-note E, measure 23 has a half-note E.
- Vns (Violins): Measure 22 has a half-note E, measure 23 has a half-note E.
- Vc (Violoncello): Measure 22 has a half-note E, measure 23 has a half-note E.
- Db (Double Bass): Measure 22 has a half-note E, measure 23 has a half-note E.

The third area is in m.69. In the orchestral version, Holst has violins continue playing the note E<sup>b</sup> which does not exist on the third beat in the 2-piano version. (See Example 29.)

### Example 29

#### 2-Piano Version

Musical score for the 2-Piano Version, measures 69-72. The score is written for four staves: two treble clefs (right hand) and two bass clefs (left hand). The key signature has one flat (B-flat) and the time signature is 5/4. The notation shows a melodic line in the upper right hand and a harmonic accompaniment in the lower left hand. The notes in measure 69 are G4, A4, Bb4, C5, D5. In measure 70, the notes are G4, A4, Bb4, C5, D5. In measure 71, the notes are G4, A4, Bb4, C5, D5. In measure 72, the notes are G4, A4, Bb4, C5, D5.

#### Orchestral Version

Musical score for the Orchestral Version, measures 69-72. The score is written for five staves: Tenor Trombone in Bb (Tub.), Violins (Vns.), Violas (Vas.), Violoncello (Vc.), and Double Bass (Db.). The key signature has one flat (B-flat) and the time signature is 5/4. The notation shows a melodic line for the Tenor Trombone and a harmonic accompaniment for the strings. The notes in measure 69 are G4, A4, Bb4, C5, D5. In measure 70, the notes are G4, A4, Bb4, C5, D5. In measure 71, the notes are G4, A4, Bb4, C5, D5. In measure 72, the notes are G4, A4, Bb4, C5, D5.





The fifth area is on the first beat in m.127. In the 2-piano version, Holst writes the notes A, E and A using dotted half-notes. In the orchestral version, a dotted half-note C# was added. As a result, it makes them a complete A-major triad. (See Example 31.)

### Example 31

#### 2-Piano Version

Musical score for the 2-Piano version of Example 31, measures 127-130. The score is written for two pianos (right and left hands) in 5/4 time. Measure 127 features a dotted half-note A in the right hand and a dotted half-note E in the left hand. Measure 128 continues with dotted half-note A in the right hand and dotted half-note A in the left hand. Measure 129 shows a dotted half-note C# in the right hand and a dotted half-note A in the left hand. Measure 130 concludes with dotted half-note A in the right hand and dotted half-note A in the left hand.

#### Orchestral Version

Musical score for the Orchestral version of Example 31, measures 127-130. The score is written for an orchestra in 5/4 time. The instruments and their parts are: Trp. in C (trumpet), Ten. Trb. (tenor trombone), Bass Trb. (bass trombone), Ten Tub in Bb (tenor tuba), Bass Tub. (bass tuba), Timp. (timpani), S.D. (snare drum), and Db. (double bass). Measure 127 features a dotted half-note A in the right hand and a dotted half-note E in the left hand. Measure 128 continues with dotted half-note A in the right hand and dotted half-note A in the left hand. Measure 129 shows a dotted half-note C# in the right hand and a dotted half-note A in the left hand. Measure 130 concludes with dotted half-note A in the right hand and dotted half-note A in the left hand.

From further comparison between the 2-piano version and the orchestral version, the author discovers several differences from m.91 to m.94 which may have been caused by printing errors. (See Example 32.) First, the melody in the strings and woodwinds from m.91 to m.94 is indicated to be performed an octave higher in the 2-piano version. Second, in the 2-piano version, the second note of the first beat in m.93 is written C#. In the orchestral version, it is written B#. The author believes that the B# is the correct note. By observing the harmonic interval in this area, there is always an E note where the B# occurs. Third, in the second note of the fifth beat of m.94, the right hand of the first piano is written D while the left hand is written E. In the orchestral version, it is written E.

Example 32

2-Piano Version

The image displays a musical score for the 2-Piano Version of Example 32, covering measures 91 through 94. The score is written in 5/4 time and is divided into two systems. The first system (measures 91-94) includes a piano part with two staves and a 'Str & Wind' part with two staves. The piano part features dynamic markings of *f* and *cresc.*, and includes trills ('Tr.') in measures 92 and 93. The 'Str & Wind' part is marked with an *8va* instruction, indicating it is to be played an octave higher. The second system (measures 90-93) shows the continuation of the piano part with *stacc.* markings and the 'Str & Wind' part with an *8va* instruction. The score is presented on a light blue background.

# Orchestral Version

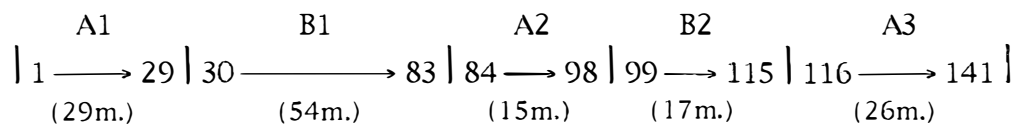
This page of the orchestral score, numbered 30, features a variety of instruments. The woodwinds include Flute (Fl.), Clarinet in C (Cl. in C), Clarinet in Bb (Cl. in Bb), Bassoon (Bsn.), and Contrabassoon (Con. Bsn.). The brass section consists of Horn in F (Hrn. in F), Trumpet in C (Tpt. in C), Tenor Trombone (Ten. Trb.), Bass Trombone (Bass Trb.), and Tuba in Bb (Tub. in Bb). The percussion includes Snare Drum (S.D.), Cymbal (Cymb.), and Tom-tom (Tm.). The strings are represented by Violin I and II (Vn. I and Vn. II), Viola (Vc.), and Double Bass (Db.). The score is marked with dynamic levels such as *f*, *crass.*, and *ff*. It includes first and second endings (a 1, a 2, a 3) and contains complex rhythmic patterns with many sixteenth and thirty-second notes. The page is filled with musical notation, including stems, beams, and various articulation marks.

## VENUS, THE BRINGER OF PEACE

### Form Analysis

The author divides Venus into six sections. (See Example 33.)

#### Example 33



The result is the rondo form A-B-A-B-A.

### Melodic Analysis

The first theme of Venus is a combination of two prominent figures. The first figure is the ascending four-note motive which repeats with almost exact imitation. From the first measure, this 4-note motive is performed by horn 1. When it is repeated in m.3, it is answered by the second figure which is a series of chords which acts as the counter melody, and is performed by four flutes and three oboes. This series of chords moves in contrary motion. While chords in flutes are descending, chords in oboes are ascending. (See Example 34.)

Example 34

The musical score for Example 34 is arranged in two systems. The first system includes parts for Flute (Fl.), Oboe (Ob.), Clarinet in Bb (Cl. in Bb), and Horns in F1 & II (Hrn. in F1 & II). The second system includes parts for Flute (Fl.), Oboe (Ob.), Clarinet in Bb (Cl. in Bb), and Horns in F1 & II (Hrn. in F1 & II). The score is written in 4/4 time with a key signature of two flats (Bb and Eb). The Flute and Oboe parts feature complex textures with multiple notes and rests, while the Clarinet and Horns parts provide harmonic support with sustained notes and rests. Dynamics markings include *p* (piano), *pp* (pianissimo), and *ppp* (pianississimo). The Flute and Oboe parts have a *pp* marking at the end of the first system. The Clarinet and Horns parts have a *p* marking at the end of the first system. The Flute and Oboe parts have a *pp* marking at the end of the second system. The Clarinet and Horns parts have a *p* marking at the end of the second system.

The 4-note motive and the answering chords in contrary motion return in mm.6-10. They are still moving with the same intervals as in their first appearance but they are transposed a major third lower. As for the counter melody chords, flutes still play the descending chords but the ascending chords are now being played by clarinets.

The second theme first appears in mm.32-36 in 3/4 meter, and is performed by the solo violin. (See Example 35.) It is immediately repeated by the violins tutti in mm.37-41. The second theme reappears in mm.60-64 and is performed by solo violin. The third and the last appearance is in mm.99-105 and is performed by the violins tutti.

Example 35

The musical score for Example 35 shows a single staff for the Violin (Vn.) in 3/4 time. The key signature has three sharps (F#, C#, G#). The music begins at measure 32 with a piano (*p*) dynamic. The melody consists of a series of eighth notes, mostly beamed in pairs, with some quarter notes. The notes are: G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4, B3, A3, G3, F#3, E3, D3, C3, B2, A2, G2, F#2, E2, D2, C2, B1, A1, G1, F#1, E1, D1, C1, B0, A0, G0, F#0, E0, D0, C0, B-1, A-1, G-1, F#-1, E-1, D-1, C-1, B-2, A-2, G-2, F#-2, E-2, D-2, C-2, B-3, A-3, G-3, F#-3, E-3, D-3, C-3, B-4, A-4, G-4, F#-4, E-4, D-4, C-4, B-5, A-5, G-5, F#-5, E-5, D-5, C-5, B-6, A-6, G-6, F#-6, E-6, D-6, C-6, B-7, A-7, G-7, F#-7, E-7, D-7, C-7, B-8, A-8, G-8, F#-8, E-8, D-8, C-8, B-9, A-9, G-9, F#-9, E-9, D-9, C-9, B-10, A-10, G-10, F#-10, E-10, D-10, C-10, B-11, A-11, G-11, F#-11, E-11, D-11, C-11, B-12, A-12, G-12, F#-12, E-12, D-12, C-12, B-13, A-13, G-13, F#-13, E-13, D-13, C-13, B-14, A-14, G-14, F#-14, E-14, D-14, C-14, B-15, A-15, G-15, F#-15, E-15, D-15, C-15, B-16, A-16, G-16, F#-16, E-16, D-16, C-16, B-17, A-17, G-17, F#-17, E-17, D-17, C-17, B-18, A-18, G-18, F#-18, E-18, D-18, C-18, B-19, A-19, G-19, F#-19, E-19, D-19, C-19, B-20, A-20, G-20, F#-20, E-20, D-20, C-20, B-21, A-21, G-21, F#-21, E-21, D-21, C-21, B-22, A-22, G-22, F#-22, E-22, D-22, C-22, B-23, A-23, G-23, F#-23, E-23, D-23, C-23, B-24, A-24, G-24, F#-24, E-24, D-24, C-24, B-25, A-25, G-25, F#-25, E-25, D-25, C-25, B-26, A-26, G-26, F#-26, E-26, D-26, C-26, B-27, A-27, G-27, F#-27, E-27, D-27, C-27, B-28, A-28, G-28, F#-28, E-28, D-28, C-28, B-29, A-29, G-29, F#-29, E-29, D-29, C-29, B-30, A-30, G-30, F#-30, E-30, D-30, C-30, B-31, A-31, G-31, F#-31, E-31, D-31, C-31, B-32, A-32, G-32, F#-32, E-32, D-32, C-32, B-33, A-33, G-33, F#-33, E-33, D-33, C-33, B-34, A-34, G-34, F#-34, E-34, D-34, C-34, B-35, A-35, G-35, F#-35, E-35, D-35, C-35, B-36, A-36, G-36, F#-36, E-36, D-36, C-36, B-37, A-37, G-37, F#-37, E-37, D-37, C-37, B-38, A-38, G-38, F#-38, E-38, D-38, C-38, B-39, A-39, G-39, F#-39, E-39, D-39, C-39, B-40, A-40, G-40, F#-40, E-40, D-40, C-40, B-41, A-41, G-41, F#-41, E-41, D-41, C-41, B-42, A-42, G-42, F#-42, E-42, D-42, C-42, B-43, A-43, G-43, F#-43, E-43, D-43, C-43, B-44, A-44, G-44, F#-44, E-44, D-44, C-44, B-45, A-45, G-45, F#-45, E-45, D-45, C-45, B-46, A-46, G-46, F#-46, E-46, D-46, C-46, B-47, A-47, G-47, F#-47, E-47, D-47, C-47, B-48, A-48, G-48, F#-48, E-48, D-48, C-48, B-49, A-49, G-49, F#-49, E-49, D-49, C-49, B-50, A-50, G-50, F#-50, E-50, D-50, C-50, B-51, A-51, G-51, F#-51, E-51, D-51, C-51, B-52, A-52, G-52, F#-52, E-52, D-52, C-52, B-53, A-53, G-53, F#-53, E-53, D-53, C-53, B-54, A-54, G-54, F#-54, E-54, D-54, C-54, B-55, A-55, G-55, F#-55, E-55, D-55, C-55, B-56, A-56, G-56, F#-56, E-56, D-56, C-56, B-57, A-57, G-57, F#-57, E-57, D-57, C-57, B-58, A-58, G-58, F#-58, E-58, D-58, C-58, B-59, A-59, G-59, F#-59, E-59, D-59, C-59, B-60, A-60, G-60, F#-60, E-60, D-60, C-60, B-61, A-61, G-61, F#-61, E-61, D-61, C-61, B-62, A-62, G-62, F#-62, E-62, D-62, C-62, B-63, A-63, G-63, F#-63, E-63, D-63, C-63, B-64, A-64, G-64, F#-64, E-64, D-64, C-64, B-65, A-65, G-65, F#-65, E-65, D-65, C-65, B-66, A-66, G-66, F#-66, E-66, D-66, C-66, B-67, A-67, G-67, F#-67, E-67, D-67, C-67, B-68, A-68, G-68, F#-68, E-68, D-68, C-68, B-69, A-69, G-69, F#-69, E-69, D-69, C-69, B-70, A-70, G-70, F#-70, E-70, D-70, C-70, B-71, A-71, G-71, F#-71, E-71, D-71, C-71, B-72, A-72, G-72, F#-72, E-72, D-72, C-72, B-73, A-73, G-73, F#-73, E-73, D-73, C-73, B-74, A-74, G-74, F#-74, E-74, D-74, C-74, B-75, A-75, G-75, F#-75, E-75, D-75, C-75, B-76, A-76, G-76, F#-76, E-76, D-76, C-76, B-77, A-77, G-77, F#-77, E-77, D-77, C-77, B-78, A-78, G-78, F#-78, E-78, D-78, C-78, B-79, A-79, G-79, F#-79, E-79, D-79, C-79, B-80, A-80, G-80, F#-80, E-80, D-80, C-80, B-81, A-81, G-81, F#-81, E-81, D-81, C-81, B-82, A-82, G-82, F#-82, E-82, D-82, C-82, B-83, A-83, G-83, F#-83, E-83, D-83, C-83, B-84, A-84, G-84, F#-84, E-84, D-84, C-84, B-85, A-85, G-85, F#-85, E-85, D-85, C-85, B-86, A-86, G-86, F#-86, E-86, D-86, C-86, B-87, A-87, G-87, F#-87, E-87, D-87, C-87, B-88, A-88, G-88, F#-88, E-88, D-88, C-88, B-89, A-89, G-89, F#-89, E-89, D-89, C-89, B-90, A-90, G-90, F#-90, E-90, D-90, C-90, B-91, A-91, G-91, 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E-152, D-152, C-152, B-153, A-153, G-153, F#-153, E-153, D-153, C-153, B-154, A-154, G-154, F#-154, E-154, D-154, C-154, B-155, A-155, G-155, F#-155, E-155, D-155, C-155, B-156, A-156, G-156, F#-156, E-156, D-156, C-156, B-157, A-157, G-157, F#-157, E-157, D-157, C-157, B-158, A-158, G-158, F#-158, E-158, D-158, C-158, B-159, A-159, G-159, F#-159, E-159, D-159, C-159, B-160, A-160, G-160, F#-160, E-160, D-160, C-160, B-161, A-161, G-161, F#-161, E-161, D-161, C-161, B-162, A-162, G-162, F#-162, E-162, D-162, C-162, B-163, A-163, G-163, F#-163, E-163, D-163, C-163, B-164, A-164, G-164, F#-164, E-164, D-164, C-164, B-165, A-165, G-165, F#-165, E-165, D-165, C-165, B-166, A-166, G-166, F#-166, E-166, D-166, C-166, B-167, A-167, G-167, F#-167, E-167, D-167, C-167, B-168, A-168, G-168, F#-168, E-168, D-168, C-168, B-169, A-169, G-169, F#-169, E-169, D-169, C-169, B-170, A-170, G-170, F#-170, E-170, D-170, C-170, B-171, A-171, G-171, F#-171, E-171, D-171, C-171, B-172, A-172, G-172, F#-172, 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E-252, D-252, C-252, B-253, A-253, G-253, F#-253, E-253, D-253, C-253, B-254, A-254, G-254, F#-254, E-254, D-254, C-254, B-255, A-255, G-255, F#-255, E-255, D-255, C-255, B-256, A-256, G-256, F#-256, E-256, D-256, C-256, B-257, A-257, G-257, F#-257, E-257, D-257, C-257, B-258, A-258, G-258, F#-258, E-258, D-258, C-258, B-259, A-259, G-259, F#-259, E-259, D-259, C-259, B-260, A-260, G-260, F#-260, E-260, D-260, C-260, B-261, A-261, G-261, F#-261, E-261, D-261, C-261, B-262, A-262, G-262, F#-262, E-262, D-262, C-262, B-263, A-263, G-263, F#-263, E-263, D-263, C-263, B-264, A-264, G-264, F#-264, E-264, D-264, C-264, B-265, A-265, G-265, F#-265, E-265, D-265, C-265, B-266, A-266, G-266, F#-266, E-266, D-266, C-266, B-267, A-267, G-267, F#-267, E-267, D-267, C-267, B-268, A-268, G-268, F#-268, E-268, D-268, C-268, B-269, A-269, G-269, F#-269, E-269, D-269, C-269, B-270, A-270, G-270, F#-270, E-270, D-270, C-270, B-271, A-271, G-271, F#-271, E-271, D-271, C-271, B-272, A-272, G-272, F#-272, E-272, D-272, C-272, B-273, A-273, G-273, F#-273, E-273, D-273, C-273, B-274, A-274, G-274, F#-274, E-274, D-274, C-274, B-275, A-275, G-275, F#-275, E-275, D-275, C-275, B-276, A-276, G-276, F#-276, E-276, D-276, C-276, B-277, A-277, G-277, F#-277, E-277, D-277, C-277, B-278, A-278, G-278, F#-278, E-278, D-278, C-278, B-279, A-279, G-279, F#-279, E-279, D-279, C-279, B-280, A-280, G-280, F#-280, E-280, D-280, C-280, B-281, A-281, G-281, F#-281, E-281, D-281, C-281, B-282, A-282, G-282, F#-282, E-282, D-282, C-282, B-283, A-283, G-283, F#-283, E-283, D-283, C-283, B-284, A-284, G-284, F#-284, E-284, D-284, C-284, B-285, A-285, G-285, F#-285, E-285, D-285, C-285, B-286, A-286, G-286, F#-286, E-286, D-286, C-286, B-287, A-287, G-287, F#-287, E-287, D-287, C-287, B-288, A-288, G-288, F#-288, E-288, D-288, C-288, B-289, A-289, G-289, F#-289, E-289, D-289, C-289, B-290, A-290, G-290, F#-290, E-290, D-290, C-290, B-291, A-291, G-291, F#-291, E-291, D-291, C-291, B-292, A-292, G-292, F#-292, E-292, D-292, C-292, B-293, A-293, G-293, F#-293, E

The fourth theme first appears in mm.68-69 in 3/4 meter and then reappears again in mm.74-75. (See Example 37a.) Both are performed by oboe 1. The third appearance of the fourth theme is in a short tutti section from mm.80-82 and is performed by flutes, violins, violas and cellos. Flutes and violins are playing in unison while cellos are playing an octave lower. The violas play the first two notes in unison with flutes and violins then drop an octave lower which is in unison with the cellos. The last appearance of the fourth theme is performed by the solo cello in mm.83-85. (See Example 37b.) The last appearance of the fourth theme is in 4/4 meter.

### Example 37

a).

Musical notation for Example 37a: Oboe part, measures 68-69, 3/4 meter, piano (*p*) con espress.

b).

Musical notation for Example 37b: Vc Solo part, measures 83-85, 4/4 meter, piano (*p*).

### Rhythmic Analysis

There are four prominent patterns in the rhythmic accompaniment in Venus. The first pattern first appears in the first A section from m.11 to m.19 with 4/4 meter and the Adagio tempo. The second pattern appears in the first B section from m.32 to m.52 with 3/4 meter and the Andante tempo. The third pattern first appears in the first B section in m.53 and continues into the C section. The third pattern is written in 3/4 meter and the Animato tempo. The fourth pattern appears in the last A section from m.133 to m.138 with 4/4 meter

and the Adagio tempo. (See Example 38.)

### Example 38

#### Rhythmic Pattern 1



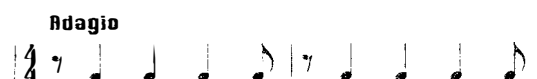
#### Rhythmic Pattern 2



#### Rhythmic Pattern 3



#### Rhythmic Pattern 4



In comparison patterns 2-4 are in fact variations of pattern 1. In pattern 1, there are four simple beats in 4/4 meter. Pattern 2 is similar to pattern 1 except pattern 2 is in 3/4 meter and comes half a beat later. Pattern 3 is also in 3/4 meter and is almost identical to pattern 2 except the down beat of each measure is not missing as in pattern 2. Pattern 4 is also similar to pattern 2 but with an additional beat to make 4/4 meter and without the last up-beat note tied to the down-beat note of the next measure.

Holst wrote a passage of rhythmic augmentation at the end of Venus in celesta, flutes and violins from m.137 to m.141. (See Example 39.) It appears that he wanted more control of how slow Venus should come to an end rather



than use the word '*ritardando*'. He also wanted it to fade away so he indicated that area to be performed '*morendo al fine*'.

### Example 39

The image displays a musical score for measures 137 to 141. The score is arranged in three systems. The first system is for Flute (Fl), the second for Cello (Cel.), and the third for Violins (Vns.). The key signature is three flats (B-flat, E-flat, A-flat) and the time signature is 4/4. The tempo/mood marking 'morendo al fine' is written above the first measure. The Flute part consists of a series of eighth notes, mostly beamed in pairs, with some slurs. The Cello part features a complex rhythmic pattern with many beamed eighth notes and some triplets, indicated by a '3' above the notes. The Violin parts consist of a series of eighth notes, mostly beamed in pairs, with some slurs. The score ends with a double bar line and a fermata in the final measure.

### Harmonic Analysis

The key signature is one of the interesting aspects of Venus. Holst starts Venus by using three flats from m.1 until m.29. From m.30 to m.59, Holst uses both three flats and six sharps at the same time. From m.60 to m.124, he returns to use only three flats. From m.125 to m.129 Holst changes briefly to three flats and four sharps. Lastly, he returns to three flats from m.130 to the end in m.141.

Actually, the area with the two key signatures from mm.125 to m.129, most of the instruments perform in the sharp key because accidentals are used to cancel the effect of the flat symbols. The harmonic analysis indicates that

the series of two chords that play simultaneously using four sharps key signature are the same chords as those played with the three flats key signature. They are written enharmonic with each other. The reason Holst uses four sharps in violins is that it is easier for the performer to read the ascending arpeggios. (See Example 40.)

### Example 40

The image displays a musical score for Example 40, starting at measure 125. The score is arranged in five systems, each with two staves. The instruments are: Flute (Fl.), Oboe (Ob.), Harp I (Hp. I.), Harp II (Hp. II.), and Violins (Vns.). The key signature is three flats (B-flat, E-flat, A-flat) for the first three systems. In the fourth system, the key signature changes to four sharps (F-sharp, C-sharp, G-sharp, D-sharp) for the Violins and Harp II, while the Flute, Oboe, and Harp I remain in three flats. The music features a series of ascending arpeggios in the Violins and Harp II, which are enharmonically equivalent to the chords in the three flats key signature. The Flute and Oboe play chords that are also enharmonically equivalent. The Harp I part consists of chords. The Violins and Harp II parts are marked with a dynamic of *pp* (pianissimo).

Holst uses a three flats key signature in the first and second A sections. He starts the third A section with a three flats key signature from m.116 to m.124. Holst uses two key signatures at the same time from m.125 to m.129. He uses four sharps in harp II and violins while the rest of the orchestra plays in



Section A3 - chord analysis mm.116-141

b	b
$  E^b M \quad D^{\#} 7 \quad E^b 7 \quad Fm 7   Gm 7 \quad A^b \quad Gm \quad Fm 11  $	$D^{\#} 7 \quad E^b 7 \quad Fm 7   Gm 7 \quad A^b \quad Gm \quad Fm 11   E^b 9   E^b 9  $
116	
$  A^b 9   A^b 9   D^b 9   G^b 9   B9   A 11   D^{\#} 9   D^{\#} 9   Fm 11   Fm 11   Fm 11   Fm 11   Fm 11  $	
122	
$  E^b 9 \quad Cm 7   Cm 11   Cm 11   Cm 11   Cm 7   Cm 7   Cm   $	
135	

Example 42 displays the chords used in both B sections. In the first B section as previously stated, Holst starts by using two key signatures, three flats and six sharps, at the same time from m.30 to m.59. He changes back to three flats from m.60 until the end in m.67. He uses six sharps in flutes, oboes and violins while the rest of the orchestra remains in three flats. Holst switches back and forth between B9 and A#m chords from m.30 to m.50 with the exception of a D7 chord in m.44 and a D<sup>b+</sup> chord in m.47. These two chords, B9 and A#m, belong to the F#-major tonality. Holst uses the six sharps key signature which is the F#-major tonality in this area but he never uses the F#M chord until m.56. Holst uses D7, Em7, B<sup>b+</sup>9, F#M, Am7 and B9 chords from m.51 to m.65. The D7, Em7 and Am7 chords belong to the G-major tonality but Holst never uses the GM chord in this area. Holst ends the first B section with a C7 chord (without the 5th) in m.67. Holst uses only one key signature, three flats, in the second B section.

## Example 42

Section B1 - chord analysis mm.30-67

$\left| \begin{array}{c} B9 \\ 30 \end{array} \right| B9 \left| B9 \right| B9 \left| B9 \right| B9 \left| A\#m \right| A\#m \left| B9 \right| B9 \left| B9 \right| B9 \left| B9 \right| B9 \left| B9 \right| B9 \left| A\#m \right| A\#m \left| B9 \right| B9 \left| \right.$

$\left| \begin{array}{c} B9 \ D7 \\ 41 \end{array} \right| D7 \left| D7 \right| B9 \left| B9 \right| D^{b+} \left| D^{b+} \right| B9 \left| B9 \right| B9 \left| D7 \right| D7 \left| Em7 \right| B^{b+9} \left| Em7 \right| G^b \left| Am7 \right| \left. \right.$

$\left| \begin{array}{c} B^{b+9} \\ 58 \end{array} \right| B^{b+9} \left| B9 \right| B9 \left| B9 \right| B9 \left| D7 \right| D7 \left| B9 \right| B9 \left| Cm7 \right. \left. \text{(no 5th)} \right| \left. \right.$

Section B2 - chord analysis mm.99-115

$\left| \begin{array}{c} Fb9 \\ 99 \end{array} \right| Fb9 \left| Fb9 \right| Fb9 \left| Fb9 \right| Fb9 \left| Fb9 \right| Fb9 \left| Eb7 \right| Fb9 \left| Fb9 \right| G^{b+} \left| A^{bM7} \right| Eb \left| A^{bM7} \right| \left| A^{bM7} \right| \left. \right.$

$\left| \begin{array}{c} A^{bM7} \\ 113 \end{array} \right| A^{bM7} \left| A^{bM7} \right| A^{bM7} \left| \right.$

Holst uses only one key signature, three flats, in the C section. Example 43 displays the chords used in this section.

## Example 43

Section C - chord analysis mm.68-84

$\left| \begin{array}{c} F \\ 68 \end{array} \right| F \left| F \right| G^7 \left| B9 \right| D^{b+} \left| B^{b9} \right| Gm11 \left| B^{b9} \right| A \left| A \right| B^7 \left| B^7 \right| B^7 \left| Q^* \right| B^7 \left| A \right| A \left| B^7 \right| \left. \right.$

$\left| \begin{array}{c} B^{b7} \\ 82 \end{array} \right| A \left| Q \right| \left. \right.$

\* Q = quartal harmony

## Other Aspects

Holst likes to use contrary chordal motion. This can be clearly seen

from the second figure of the first theme at the beginning of Venus in mm.3-5. (See Example 44.) This contrary chordal motion sets the pattern of Venus to the possibility of having more than one chord at a time.

Example 44

Holst often uses chord alternations. He likes to move the outer notes and sometimes the inner notes of chords by a half step or a whole step. (See Example 45.) On the right hand of harp II in m.126, Holst starts with D $\sharp$ 7 on the first beat. He moves the upper note (C $\sharp$ ) of this chord down a whole step (to B) which changes from the D $\sharp$ 7 to B7 on the second beat. Holst moves the upper note B back to C $\sharp$  and returns to the D $\sharp$ 7 chord on the third beat. Then he moves the upper note down again to the B7 chord. Holst repeats this same procedure with chords on the left hand but he starts with the B7 chord on the first beat.

Example 45

Another example of the chord alternation is in m.89. Holst uses the same procedure as the previous example. However, this time it is between two different instruments, the clarinets and bassoons. (See Example 46.) Both instruments play  $E^bM$  and  $Cm$  chords but not at the same time. While the clarinet starts with the  $Cm$  chord, the bassoon starts with the  $E^bM$  chord.

Example 46

The image shows two staves of musical notation. The top staff is labeled 'Cl. in Bb' and the bottom staff is labeled 'Bn.'. Both staves are in 4/4 time and have a key signature of two flats (Bb and Eb). The first measure of each staff contains a chord. The top staff starts with a Cm chord (C3, Eb3, G3), and the bottom staff starts with an EbM chord (Eb2, G2, Bb2). The subsequent three measures in each staff show a sequence of chords, alternating between Cm and EbM.

## MERCURY, THE WINGED MESSENGER

### Form Analysis

Similar to Mars, Holst uses several prominent patterns to create Mercury. The first pattern which is the also first theme is in the form of arpeggiated figures, from m.1 to m.4. This pattern starts with an ascending arpeggiated B<sup>b</sup>M chord and a descending arpeggiated EM chord in bassoon 1 and cellos in m.1. Holst repeats the figure two more times. Each time is one octave higher than the previous one. In m.2, clarinet 3 and violas play an ascending B<sup>b</sup>M chord, then clarinet 1 and 3 plus violins 2 answer with a descending EM chord. In m.3, flute 1 and violins 1 play an ascending B<sup>b</sup>M chord followed by flute 1 and violins 2 playing a descending EM chord. In m.4, flute 1 and violins 1 play a descending AM chord followed by flute 1 and violins 2 playing a descending EM chord. (See Example 47.) Throughout Mercury, the first theme is never completely performed by a single instrument.



Example 47

**Divace**

Fl.

Ob.

E.H.

Bass Ob.

Cl. in A

Cl. in Bb

Bn.

Dbn.

Hp. I.

Hp. II.

Vns.

Vas.

Vc.

Db.

*p*

*p pizz.*

*con sord.*

*Bass Ob.*

The second pattern is two sets of ascending block chords. One set uses B<sup>b</sup>M and the other set uses EM. The chord in each set ascends an octave higher than the previous chord. The block chord pattern first appears in harps 1 and 2 in mm.1-3. (See Example 47.) Harp 1 always plays the B<sup>b</sup>M chords which appear in the root positions and sometimes in the first inversion positions. Harp 2, however, always plays the EM chords which appear only in the first inversion positions. At first, the block chord pattern appears to be a harmonic doubling of the first theme. However, the author considers them a pattern when these ascending block chords appear several times where the first theme does not take place. The second pattern appears in three octave ascending chords, five times, in mm.1-3, 7-9, 13-15, 157-159 and 163-165. It appears in two octave ascending chords twice in mm.26-27 and 183-184. It further appears once in five octaves in mm.32-36, and in four octaves in mm.169-172.

The third pattern is the ascending 8-note scale which consists of two tetrachords, B<sup>b</sup>-C-D-E<sup>b</sup> and E-F<sup>#</sup>-G<sup>#</sup>-A. These two tetrachords are a tritone apart and are separated by a semitone between E and E<sup>b</sup> or between A and B<sup>b</sup>. The first set of the tetrachord appears in the second half of m.7 in bass clarinet and violas. It then reappears in the second half of m.8 in bass oboe and violins 1. The second set of the tetrachords appears in the first half of m.9 for the first time in oboe and violin 2. The complete 8-note scale can be seen in oboes in m.9. (See Example 48.)

Example 48



The fourth pattern is another series of block chords, all of which appear in the first inversion. The author uses the interval pattern of the upper notes to identify this pattern. The author later discovered that most of the time the block chords will appear in the first inversion. The fourth pattern also appears in the form of the single notes, parallel third or parallel fourth intervals. The fourth pattern first appears in mm.10-12 in bassoons and harp 2. (See Example 49.)

Example 49

Example 49 shows musical notation for two instruments: Bassoon (Bn.) and Harp II (Hp. II.). The score covers measures 10 to 12. The bassoon part consists of a series of block chords in the first inversion, with the upper notes forming a specific interval pattern. The harp II part provides harmonic support with similar chords.

The fifth pattern is a series of four descending block chords in the first inversion which repeat in shorter note values. This pattern first appears in mm.38-39 in the celesta with only three chords. It then reappears with another three chords in harps 1 and 2 in mm.40-41, and two more chords in the celesta in mm.42-43. The first complete pattern has not started until mm.47-50 in oboes and English horn. (See Example 50.)

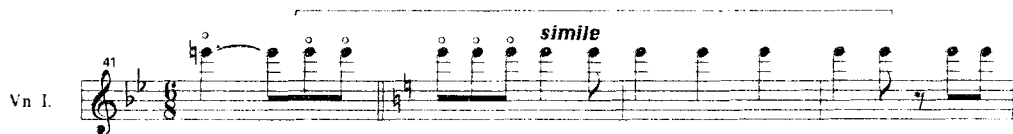
Example 50

Example 50 shows musical notation for two instruments: Oboe (Ob.) and English Horn (E.H.). The score covers measures 47 to 50. The oboe part is labeled "(The 5th pattern)" and the English horn part is labeled "(The 6th pattern)". Both parts feature descending block chords in the first inversion.

The sixth pattern is a short 4-note motive which appears for the first time at the end of the fifth pattern in m.50. (See Example 50.) This motive pattern appears several times between m.50 and m.75, also between m.241 and m.263. The motive also appears one last time near the end of the Mercury in m.293.

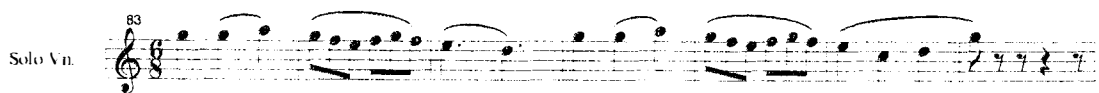
The seventh pattern is the only prominent rhythmic ostinato in Mercury. The pattern first appears in violin 1 from the two pickup notes to m.42 to m.58 using the note E. (See Example 51.) The rhythmic ostinato changes from violin 1 to glockenspiel from m.59 to m.77 using the note B. When the ostinato reappears one last time from m.235 to m.264, it still continues to play the note B but five octaves lower and performed by timpani.

Example 51



The eighth pattern is the second theme in Mercury. This is also the first melodic ostinato in *The Planets*. The second theme first appears in the solo violin from m.83 to m.88. (See Example 52.) It then repeats in various instruments until m.152. The second theme returns for the last time in the solo violin from m.255 to m.262.

Example 52



Example 53 displays the sections of Mercury. The author discovers they represent a rondo form, A-B-A-C-A.



### Example 54



### Rhythmic Analysis

Rhythm is the most interesting aspect in Mercury. Holst uses several of his favorite devices. The first and the most obvious is the 'hemiola'. He first uses 3/4 meter against 6/8 in mm.10-12. (See Example 55.) Clarinet 1 plays a descending arpeggiated triad which is derived from the last part of pattern no.1 in a distinct 6/8 meter. Bassoons and especially harp 2 are clearly performing block chords in 3/4 meter even though the time-signature indicates 6/8.

### Example 55



Holst uses two time-signatures simultaneously for the first time in *The Planets* here in Mercury from m.78 to m.112. He uses 2/4 time signature in

oboe 1, English horn, harps 1 and 2, violins 2, violas, and cellos while the rest of the orchestra remains in 6/8 as before. From m.101 to the end of the section in m.112, he also changes violins 2 and violas back to the 6/8 meter. (See Example 56.)

Example 56

The image shows a musical score for Example 56, consisting of three staves. The top two staves are for Harp I (Hp I.), with the treble clef staff on top and the bass clef staff below. The bottom staff is for Solo Violin (Solo Vn), with a treble clef. All three staves begin at measure 83. The Harp I. parts are in 7/8 time, indicated by the '7' over the '8' in the time signature. The Solo Vn part is in 6/8 time, indicated by the '6' over the '8'. The Solo Vn part features a series of eighth-note patterns with accents, while the Harp I. parts play a steady eighth-note accompaniment.

The solo violin is also a good example to show how Holst slightly alters the meter and the accents. Even though he indicates 6/8 meter, it is written in 3/4 meter in m.83, 86 and 88. In fact, Holst starts to alter the meter between 6/8 and 3/4 from the beginning of Mercury in m.10 in pattern no.4. He uses this alternation throughout Mercury.

### Harmonic Analysis

From m.1 to m.41, Holst uses two flats in harp 1, violins 1, and violas. He also uses three sharps in harp 2, violins 2, and cellos. While the rest of the orchestra has no key signature, Holst uses accidentals to change them to the tonality he is using. It is understandable why Holst uses two flats in harp 1 and three sharps in harp 2. From m.1 to m.41, harp 1 plays chords that belong to the B<sup>b</sup>-major tonality and harp 2 plays chords that belong to the E-major tonality. The author does not understand why Holst uses these two different key signatures in violins 1 and 2, violas and cellos and uses accidental to

cancel off those key signatures. The author feels that there is no need for key signature in violins 1 and 2, violas and cellos.

In m.42, Holst removes all key signatures. In m.125, he starts using one sharp only in harps 1 and 2 while the rest of the orchestra continues with no key signature. From m.157 to m.188, Holst returns the key signature to what is used in mm.1-41 along with the return of the music from these measures. From m.189 to m.230, he changes violins, violas and cellos to two sharps while the rest of the orchestra continues without change. This makes it easy for performers to read especially violins 1 and 2, violas and cellos that play chords in the D-major tonality in mm.189-200 and mm.211-220. He changes piccolos, flutes, oboes, bassoons, violins, violas, cellos and double basses to four flats from m.231 to m.234. The entire orchestra uses no key signature from m.235 to m.264. Only harp 1 starts using two flats again in m.265, and harp 2 returns to three sharps in m.267.

The author also discovers many groups of harmonic repetitions in almost every section of Mercury. The author labels these groups as a, b, c, d and so forth.

In all three of the A sections, Holst uses two tritone-related tonalities, B<sup>b</sup>-major and E-major. These two tonalities do not have a diatonic common chord or a diatonic pivot chord. He repeatedly switches back and forth between these two tonalities but he never uses both at the same time.

Holst also creates the pattern of two against three in all of the A sections as the result of the hemiola 6/8 against 3/4 meters between pattern no.1 and no.4. (See Example 57.) The pattern of two against three in mm.16-19 is repeated in mm.20-23, 166-167, 173-180, and 265-276.



### Example 57

Example 58 displays the chords used in all three of the A sections. There are six groups of chordal repetitions which the author labels as a through f.

### Example 58

Section A1 - chord analysis mm.1-77

	a	a	a	b	a		a	a		c	
	B <sup>b</sup> E   B <sup>b</sup> E   B <sup>b</sup> E			A E   B <sup>b</sup> E		D A   E B <sup>b</sup>		E B <sup>b</sup>   E B <sup>b</sup>   E B <sup>b</sup>		E D <sup>#</sup>   C <sup>#</sup> m B	
1										E C <sup>#</sup> m D <sup>#</sup>   A C <sup>#</sup> m B	
		a	a	a		d		c		d	
	A G <sup>#</sup> m		B <sup>b</sup> E   B <sup>b</sup> E   B <sup>b</sup> E			B <sup>b</sup> A <sup>o</sup>   Gm F		E D <sup>#</sup>   C <sup>#</sup> m B		B <sup>b</sup> A <sup>o</sup>	
	F <sup>#</sup> m A G <sup>#</sup> m					B <sup>b</sup> Gm A <sup>o</sup>   E <sup>b</sup> Gm F		E C <sup>#</sup> m D <sup>#</sup>   A C <sup>#</sup> m B		B <sup>b</sup> Gm A <sup>o</sup>	
12											







Holst uses only one chord at a time in the B section. The B section is similar to the A sections in that Holst appears to be switching back and forth between two tritone-related tonalities, B<sup>b</sup>-major and E-major. This later changes to D<sup>b</sup>-major and G-major. The D<sup>b</sup>-major and G-major tonalities are also tritone-related.

Example 59 displays the chords used in the B section. He ends this section with three notes; B<sup>b</sup>, F and E in m.153.

### Example 59

#### Section B - chord analysis mm.78-153

| C G C(7) | C G C(7) | B G B | G B G B | B G B | Gm7 | Gm7 | Gm7 | Gm7 | Gm7 | Gm7 | Gm7 |

78

| Gm7 | Gm7 | Gm7 | F | F | E°7 | E°7 | E°7 | A7 | D°7 | D°7 | D°7 | E7 | E7 | D°7 | E7 | E7 |

90

| A7 A | A(7) | B<sup>b</sup> | C#° | B<sup>b</sup> | B<sup>b</sup> | G7 | Fm7 | G7 | Fm7 | G7 | Am7 | G7 | Fm7 | G7 | Am7 |

107

| CM7 | Bm7 | B<sup>b</sup> | B<sup>b</sup> | B<sup>b</sup> | B<sup>b</sup> | Gm | Gm | C | C7 | Fm(7) | C | C7 | Fm(7) | C | C7 | Fm7 |

123

| C | C7 | Fm | B<sup>b</sup> | B<sup>b</sup> | Gm | B<sup>b</sup>m | Gm | Gm | C Am | C | A<sup>b</sup>+ | C | Q |

140

Holst starts the C section with D-major tonality from m.189 to m.200. From m.201 to m.207, he switches back and forth between D<sup>b</sup>-major and G-major tonalities and also uses two chords simultaneously. From m.208 to m.210, he returns to use only one chord at a time and only the G-major tonality. He returns to D-major from m.211 to m.220 and changes to D<sup>b</sup>-major in m.221. From m.227 to the end of the D section in m.234, he uses two chord

simultaneously which starts with D-major in m.227 and changes to A<sup>b</sup>-major in m.230.

Example 60 displays the chords used in the C section. There are eleven groups of chordal repetitions which the author continues the identification label from Examples 58 and 59 as m through w.

Example 60

Section C - chord analysis mm.189-234

m

| Bm7 C#°7 DM7 Em7 F#m7 GM7 | A7 Bm7 DM7 C#°7 GM7 A7 |

189

m

| Bm7 C#°7 DM7 Em7 F#m7 GM7 | A7 Bm7 DM7 C#°7 GM7 A7 |

191

n

| C#°7 Bm7 Em7 F#m7 A7 GM7 | Bm7 C#°7 F#m7 Em7 DM7 C#°7 |

193

o                      o                      o'

| Bm7 C#°7 A7 C#°7 Bm7 C#°7 | A7 C#°7 Bm7 C#°7 A7 Bm7 |

195

m'

| C#°7 DM7 Em7 F#m7 GM7 Em7 | GM7 F#m7 GM7 Em7 GM7 F#m7 |

197                      p                      p

q                      q

| GM7 A7 Bm7 C#°7 DM7 Bm7 | DM7 C#°7 DM7 Bm7 DM7 C#°7 |

n

199

r r

---

| B<sup>b</sup>m C° D<sup>b</sup> E<sup>b</sup>m D<sup>b</sup> C° | B<sup>b</sup>m Am B<sup>b</sup>m Am G Am | B<sup>b</sup>m C° D<sup>b</sup> E<sup>b</sup>m D<sup>b</sup> C° |  
 | D<sup>b</sup> C° B<sup>b</sup>m A<sup>b</sup> B<sup>b</sup>m C° | D<sup>b</sup> D C# D Em D | D<sup>b</sup> C° B<sup>b</sup>m A<sup>b</sup> B<sup>b</sup>m C° |  
 201

s

---

| B<sup>b</sup>m Am B<sup>b</sup>m Am G Am | Em F#° G Am G F#° | Em D#m Em E<sup>b</sup>m D<sup>b</sup> E<sup>b</sup>m |  
 | C# D C# D Em D | G F#° Em D Em F#° | G A<sup>b</sup> G A<sup>b</sup> B<sup>b</sup>m A<sup>b</sup> |  
 204

s t t'

---

| Em F#° G Am G F#° | CM7 Bm7 GM7 Em7 GM7 F#°7 | D7 Bm7 CM7 Bm7 GM7 Em7 |  
 | G F#° Em D Em F#° | G | |  
 207

t t'

---

| C9 Bm7 GM7 Em7 GM7 F#°7 D7 Bm7 | C9 Bm7 GM7 Em7 Bm7 C#°7 DM7 |  
 210

m

---

| Em7 F#m7 GM7 A7 Bm7 DM7 | C#°7 GM7 A7 Bm7 C#°7 DM7 |  
 212

m

---

| Em7 F#m7 GM7 A7 Bm7 DM7 | C#°7 GM7 A7 GM7 F#m7 DM7 |  
 214

u

---

| Bm7 DM7 C#°7 A7 F#m7 GM7 | F#m7 DM7 Bm7 GM7 F#m7 DM7 Bm7 |  
 216

u q q

---

| DM7 C#°7 A7 F#m7 GM7 F#m7 DM7 Bm7 | C#°7 DM7 Bm7 DM7 C#°7 DM7 |  
 218





### Example 61

Chord and interval analysis of 'group a'

$$\begin{array}{c} 6 \\ | B^b \ E | \end{array}$$

Chord and interval analysis of 'group j'

$$\begin{array}{c} 6 \ 6 \ 6 \ 6 \ 6 \\ | G \ D^b \ G \ D^b \ G \ D^b | \end{array}$$

The second pattern is between chords in group c and group d. (See Example 62.) Group c starts with the EM chord while group d starts with the B<sup>b</sup>M chord. These indicate relationship of the tritone transposition.

### Example 62

Chord and interval analysis of 'group c'

$$\begin{array}{c} -1 \quad -2 \quad -2 \\ | E \ D^{\#o} \ | \ C^{\#m} \ B \ | \\ | E \ C^{\#m} \ D^{\#o} \ | \ A \ C^{\#m} \ B \ | \\ -3 \quad +2 \quad 6 \quad +4 \quad -2 \end{array}$$

Chord and interval analysis of 'group d'

$$\begin{array}{c} -1 \quad -2 \quad -2 \\ | B^b \ A^{\circ} \ | \ G^m \ F \ | \\ | B^b \ G^m \ A^{\circ} \ | \ E^b \ G^m \ F \ | \\ -3 \quad +2 \quad 6 \quad +4 \quad -2 \end{array}$$

The third pattern is between chords in group o and group v. (See Example 63.) Group o starts with the Bm7 chord and group v starts with the C#7 chord. These two groups are a major second apart.

### Example 63

Chord and interval analysis of 'group o'

+2 -4 +4  
 | Bm7 C#°7 A7 C#°7 Bm7 C#°7 |

Chord and interval analysis of 'group v'

+2 -4 +4  
 | C#7 D#m7 Bm7 D#m7 C#7 D#m7 |

The fourth pattern is the interval pattern within group r, group s in m.205 (with the pattern continuing into of m.206), group w and group x. (See Example 64.) Group x has only half of this pattern. There are two tritone relationships. The first relationship is between group r that starts with B<sup>b</sup>m chord and group s that starts with E<sup>m</sup> chord. The second relationship is between group w that starts with B<sup>m</sup> chord and group x that starts with F<sup>m</sup> chord.

### Example 64

Chord and interval analysis of 'group r'

+2 +1 +2 -2 -1 -2 -1 +1 -1 -2 +2  
 | B<sup>b</sup>m C° D<sup>b</sup> E<sup>b</sup>m D<sup>b</sup> C° | B<sup>b</sup>m A<sup>m</sup> B<sup>b</sup>m A<sup>m</sup> G A<sup>m</sup> |  
 | D<sup>b</sup> C° B<sup>b</sup>m A<sup>b</sup> B<sup>b</sup>m C° | D<sup>b</sup> D C# D E<sup>m</sup> D |  
 -1 -2 -2 +2 +2 +1 +1 -1 +1 +2 +2

Chord and interval analysis of 'group s in m.205' and m.206

+2 +1 +2 -2 -1 -2 -1 +1 -1 -2 +2  
 | E<sup>m</sup> F#° G A<sup>m</sup> G F#° | E<sup>m</sup> D#m E<sup>m</sup> E<sup>b</sup>m D<sup>b</sup> E<sup>b</sup>m |  
 | G F#° E<sup>m</sup> D E<sup>m</sup> F#° | G A<sup>b</sup> G A<sup>b</sup> B<sup>b</sup>m A<sup>b</sup> |  
 -1 -2 -2 +2 +2 +1 +1 -1 +1 +2 +2

### Chord and interval analysis of 'group w'

$$\begin{array}{cccccccccccc}
 +2 & +1 & +2 & -2 & -1 & -2 & -1 & +1 & -1 & -2 & +2 & \\
 \left| \text{Bm C}\sharp^\circ \text{ D Em D C}\sharp^\circ \right| \text{Bm A}\sharp\text{m Bm A}\sharp\text{m A}^b \text{B}^b\text{m} \left| \right. \\
 \left. \left| \text{D C}\sharp^\circ \text{ Bm A Bm C}\sharp^\circ \right| \text{D E}^b \text{ D E}^b \text{ Fm E}^b \right| \\
 -1 & -2 & -2 & +2 & +2 & +1 & +1 & -1 & +1 & +2 & +2 & 
 \end{array}$$

### Chord and interval analysis of 'group x'

$$\begin{array}{cccccc}
 +2 & +1 & +2 & -2 & -1 & \\
 \left| \text{Fm G}^\circ \text{ A}^b \text{B}^b\text{m A}^b \text{G}^\circ \right| \\
 \left| \text{A}^b \text{G}^\circ \text{ Fm E}^b \text{Fm G}^\circ \right| \\
 -1 & -2 & -2 & +2 & +2 & 
 \end{array}$$

The author also discovers identical interval patterns in areas outside the chordal repetition groups. The fifth pattern is between chords in m.12 and chords in m.168. (See Example 65.) Chords from these two measures are a tritone apart.

### Example 65

#### Chord and interval analysis m.12

$$\begin{array}{cc}
 -1 & \\
 \left| \text{A G}\sharp\text{m} \right| \\
 \left| \text{F}\sharp\text{m A G}\sharp\text{m} \right| \\
 +3 & -1
 \end{array}$$

#### Chord and interval analysis m.168

$$\begin{array}{cc}
 -1 & \\
 \left| \text{E}^b \text{Dm} \right| \\
 \left| \text{Cm E}^b \text{Dm} \right| \\
 +3 & -1
 \end{array}$$

The sixth pattern is between chords in mm.30-31 and chords in mm.187-188. (See Example 66.) These two sets of chords are also a tritone apart.

### Example 66

Chord and interval analysis mm.30-31

-5 -3 -4 -3 -3  
 | A E C#m | A F#m D#° |

Chord and interval analysis mm.187-188

-5 -3 -4 -3 -3  
 | E<sup>b</sup> B<sup>b</sup> G<sub>m</sub> | E<sup>b</sup> C<sub>m</sub> A° |

The seventh pattern is between chords in mm.47-56 and chords in mm.59-68. (See Example 67.) These two sets of chords are a major third apart.

### Example 67

Chord and interval analysis mm.47-56

-3 -4 -3 -2 -3 -4 -3 0 0 +2 -2 -2 0 0 -3 -4 -3 -2 -3 -4 -3 0 0 +2 -2  
 | G<sub>m</sub> E° | C A | G<sub>m</sub> E° C | A A A B<sub>m</sub> A | G<sub>m</sub> | G<sub>m</sub> | G<sub>m</sub> E° | C A | G<sub>m</sub> E° C | A A A B<sub>m</sub> A |

Chord and interval analysis mm.59-68

-3 -4 -3 -2 -3 -4 -3 0 0 +2 -2 -2 0 0 -3 -4 -3 -2 -3 -4 -3  
 | B<sub>m</sub> G#° | E C# | B<sub>m</sub> G#° E | C# C# C# D#m C# | B<sub>m</sub> | B<sub>m</sub> | B<sub>m</sub> G#° | E C# | B<sub>m</sub> G#° E |

0 0 +2 -2  
 | C# C# C# D#m C# |

The eighth pattern is among chords in m.50, m.62, m.241 and m.263. (See Example 68.)

## Example 68

Chord and interval analysis m.50

$$\begin{array}{cccc} 0 & 0 & +2 & -2 \\ | & A & A & A & Bm & A & | \end{array}$$

Chord and interval analysis m.62

$$\begin{array}{cccc} 0 & 0 & +2 & -2 \\ | & C\# & C\# & C\# & D\#m & C\# & | \end{array}$$

Chord and interval analysis m.241

$$\begin{array}{cccc} 0 & 0 & +2 & -2 \\ | & F & F & F & G & F & | \end{array}$$

Chord and interval analysis m.263

$$\begin{array}{ccc} 0 & +2 & -2 \\ | & C & C & Dm & C & | \end{array}$$

The ninth pattern is between chords in mm.197-198 and chords in mm.199-200. (See Example 69.) These two sets of chords are a perfect fifth apart.

## Example 69

Chord and interval analysis mm.197-198

$$\begin{array}{cccccccccccc} +2 & +2 & +1 & -3 & +3 & -1 & +1 & -3 & +3 & -1 \\ | & C\#^{\circ}7 & DM7 & Em7 & F\#m7 & GM7 & Em7 & | & GM7 & F\#m7 & GM7 & Em7 & GM7 & F\#m7 & | \end{array}$$

Chord and interval analysis mm.199-200

$$\begin{array}{cccccccccccc} +2 & +2 & +1 & -3 & +3 & -1 & +1 & -3 & +3 & -1 \\ | & GM7 & A7 & Bm7 & C\#^{\circ}7 & DM7 & Bm7 & | & DM7 & C\#^{\circ}7 & DM7 & Bm7 & DM7 & C\#^{\circ}7 & | \end{array}$$

The tenth pattern is between chords in mm.208-211 and chords in mm.215-218. (See Example 70.) These two sets of chords are a perfect fifth apart.

### Example 70

Chord and interval analysis mm.208-211

-1	-4	-3	+3	-1	-4	-3	+1	-1	-4	-3	-4						
	CM7	Bm7	GM7	Em7	GM7	F# <sup>d</sup> 7		D7	Bm7	CM7	Bm7	GM7	Em7				
-1	-4	-3	+3	-1	-4	-3	+1	-1	-4	-3							
	C9	Bm7	GM7	Em7	GM7	F# <sup>d</sup> 7		D7	Bm7	C9	Bm7	GM7	Em7	Bm7	C# <sup>d</sup> 7	DM7	

Chord and interval analysis mm.215-218

-1	-4	-3	+3	-1	-4	-3	+1	-1								
	C# <sup>d</sup> 7	GM7	A7	GM7	F#m7	DM7		Bm7	DM7	C# <sup>d</sup> 7	A7	F#m7	GM7			
-4	-3	-4	-1	-4	-3	+3	-1	-4	-3	+1	-1	-4	-3			
	F#m7	DM7	Bm7	GM7	F#m7	DM7		DM7	C# <sup>d</sup> 7	A7	F#m7	GM7	F#m7	DM7	Bm7	

The eleventh pattern is among chords in m.223, m.224 and m.225. (See Example 71.) Chords from these three measures are a minor third apart.

### Example 71

Chord and interval analysis m.223

+2	-1	+2	-1	+2			
	D7	EM7	D#7	FM7	E7	G <sup>b</sup> M7	

Chord and interval analysis m.224

+2	-1	+2	-1	+2			
	F7	GM7	F#7	A <sup>b</sup> M7	G7	AM7	

Chord and interval analysis m.225

+2	-1	+2	-1	+2			
	A <sup>b</sup> 7	B <sup>b</sup> 7	A7	B7	B <sup>b</sup> 7	C7	

## Other Aspects

The author discovers several differences between the orchestral version and the 2-piano version. The first difference occurs in mm129-130. In the orchestral version, harps 1 and 2 play an arpeggiated Gm chord in m.129 but not in m.130. In the 2-piano version, piano 2 does not play the arpeggiated Gm chord in m.129 but does play it in m.130. (See Example 72.) The author believes Holst makes this change in the orchestral version to better emphasize the completion of the second theme in m.130.

### Example 72

#### 2-Piano Version

The image shows a musical score for the 2-Piano Version, measures 129-130. The score is written for two pianos, with four staves. The top two staves are for the right hand, and the bottom two are for the left hand. The key signature is G minor (two flats) and the time signature is 3/4. Measure 129 is marked with a '129' and an '8va' marking above the first staff. The music consists of arpeggiated chords in both hands. In measure 130, the right hand continues with a similar arpeggiated pattern, while the left hand plays a more complex rhythmic pattern with a long note in the final part of the measure.

# Orchestral Version

This page of an orchestral score, labeled 'Orchestral Version', contains measures 129 and 130. The score is arranged in a standard orchestral layout with the following instruments and parts:

- Flute (Fl.):** Treble clef, 8/8 time signature. Measures 129-130 show a melodic line with a slur over measures 129-130.
- Oboe (Ob.):** Treble clef, 8/8 time signature. Measures 129-130 show a sustained chord.
- English Horn (E.H.):** Treble clef, 8/8 time signature. Measures 129-130 show a sustained chord.
- Bass Oboe (Bass Ob.):** Treble clef, 8/8 time signature. Measures 129-130 show a sustained chord.
- Clarinet in A (Cl. in A):** Treble clef, 8/8 time signature. Measures 129-130 show a melodic line with a slur over measures 129-130.
- Clarinet in Bb (Cl. in Bb):** Treble clef, 8/8 time signature. Measures 129-130 show a melodic line with a slur over measures 129-130.
- Bass Clarinet in Bb (Bcl. in Bb):** Treble clef, 8/8 time signature. Measures 129-130 show a sustained chord.
- Bassoon (Bn.):** Bass clef, 8/8 time signature. Measures 129-130 show a sustained chord.
- Double Bassoon (Dbn.):** Bass clef, 8/8 time signature. Measures 129-130 show a sustained chord.
- Horn in F (Hrn. in F):** Treble clef, 8/8 time signature. Measures 129-130 show a sustained chord.
- Trumpet in C (Trp. in C):** Treble clef, 8/8 time signature. Measures 129-130 show a sustained chord.
- Harps (Hp. I, Hp. II):** Treble and Bass clefs, 2/4 time signature. Measures 129-130 show arpeggiated chords with a slur over measures 129-130.
- Violins (Vns.):** Treble clef, 8/8 time signature. Measures 129-130 show a melodic line with a slur over measures 129-130.
- Viola (Vas.):** Bass clef, 8/8 time signature. Measures 129-130 show a melodic line with a slur over measures 129-130 and a '4' above the staff.
- Violoncello (Vc.):** Bass clef, 8/8 time signature. Measures 129-130 show a melodic line with a slur over measures 129-130 and a '4' above the staff.
- Double Bass (Db.):** Bass clef, 8/8 time signature. Measures 129-130 show a sustained chord.



The second difference is in mm131-135. In the orchestral version, harps 1 and 2 play arpeggiated CM chords in mm.131-132 and mm.134-135. In the 2-piano version, neither of the two pianos plays the arpeggiated chord. (See Example 73.) The reason that the arpeggiated chords are added to the orchestral version is because in m.131 the dynamic changes to fortissimo, and the entire orchestra starts playing. Holst therefore has harp 1 and 2 play the arpeggiated chords as in previous measures.

Example 73

2-Piano Version

The musical score for the 2-Piano Version of Example 73, measures 131-135, is presented in 8/8 time. It consists of four staves. The top staff is for Flute 8va, the second for Piano (ff), the third for Tr. Eb Cl., and the fourth for Violins (ff). The piano part shows arpeggiated chords in measures 131-132 and 134-135. The dynamic marking *ff* is present in measures 131, 132, 134, and 135. The score is in common time (C) and features a key signature of one flat (B-flat).

Orchestral Version

This page of an orchestral score, labeled 'Orchestral Version', contains measures 131 through 134. The score is arranged in a standard orchestral layout with the following parts from top to bottom: Piccolo (Picc.), Flute (Fl.), Oboe (Ob.), English Horn (E.H.), Bass Oboe (Bass Ob.), Clarinet in A (Cl. in A), Clarinet in Bb (Cl. in Bb), Bassoon (Bcl. in Bb), Bassoon (Bn), Double Bass (Dbn), Horn in F (Hrn. in F), Trumpet in C (Trp. in C), Trombone (Timp.), Harp I (Hp. I), Harp II (Hp. II), Violin (Vns), Viola (Vas), Violoncello (Vc.), and Double Bass (Dh.). The music is written in 2/4 time with a key signature of one flat (Bb). The dynamic marking *ff* (fortissimo) is present throughout the score. The score includes various musical notations such as notes, rests, slurs, and articulation marks. The page number '69' is centered at the bottom.

The author believes there is a misprint in the orchestral version in m.192. (See Example 74a.) The third note in violins 1 should be a D not a C#. There are several reasons that support the author's belief. First, the right hand of the first piano plays the note D on the third beat in the 2-piano version. (See Example 74b.) Second, violins 1 and 2, violas and cellos play in parallel motion from m.189 to m.200. If C# is the correct note, this will be the only area that violins 1 are not in parallel motion with other instruments. As a result of the parallel motion, the harmonic analysis shows these instruments are playing seventh chords except in the misprint area that has a triad, the F#m chord. Third, when the music returns in m.211, the note in question is shown D and not C# in the last note of violins 1 in m.214. (See Example 74c.)

Example 74a

189

Bcl. in Bb

*pp*

Vns.

*pp sempre stacc.*

Vas.

*pp sempre stacc.*

Vc.

*pp sempre stacc.*

Db.

*pp*

195

Bcl. in Bb

Vns.

Vas.

Vc.

Db.

Example 74b

Musical score for Example 74b, measures 189-194. The score is written for a string instrument (Str.) and piano (pp). The key signature is one sharp (F#) and the time signature is 8/8. The score is divided into two systems. The first system (measures 189-192) features a treble clef staff with the instruction "Str." and a bass clef staff with the instruction "pp stacc.". The second system (measures 193-194) features a bass clef staff with the instruction "Str." and a treble clef staff with the instruction "pp stacc. una corda".

Musical score for Example 74b, measures 195-200. The score is written for a string instrument (Str.) and piano (pp). The key signature is one sharp (F#) and the time signature is 8/8. The score is divided into two systems. The first system (measures 195-198) features a treble clef staff and a bass clef staff. The second system (measures 199-200) features a treble clef staff and a bass clef staff.

Example 74c

Musical score for Example 74c, featuring woodwinds, brass, and strings. The score is in 6/8 time and includes the following parts:

- Fl.
- Ob.
- Cl. in Bb
- Bcl. in Bb
- Bn.
- Dbn.
- Hrn. in F
- Trp. in C
- Vns. (Violins)
- Vas. (Violas)
- Vc. (Violoncello)
- Db. (Double Bass)

Key features of the score include:

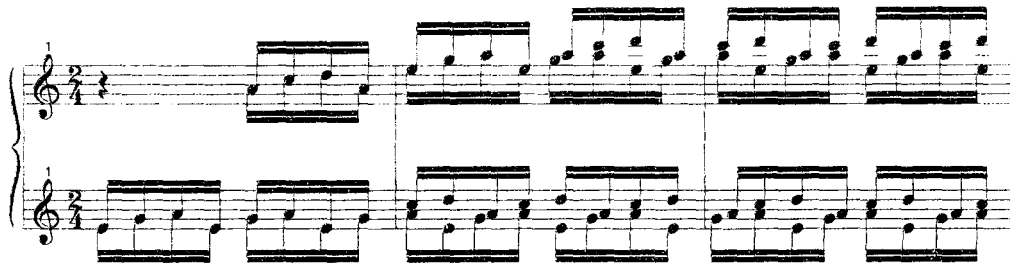
- Measures 211-212: Woodwinds (Fl., Ob., Cl. in Bb, Bcl. in Bb, Bn., Dbn.) play a melodic line with a four-measure slur and a dynamic marking of *pp*.
- Measures 213-214: The string section (Vns., Vas., Vc., Db.) plays a rhythmic pattern with a dynamic marking of *pp stacc.* and a four-measure slur.
- Measures 215-216: The string section continues with a melodic line, with the Violins part marked *unis.* and *pp stacc.*

## JUPITER, THE BRINGER OF JOLLITY

### Form Analysis

Like Mars and Mercury, Holst uses patterns to create Jupiter. The first pattern is two sets of 3-note ostinatos in violins which start at m.1. The first set uses E-G-A, and the second set uses A-C-D. Both sets of 3-note ostinatos have the note A in common. Both sets also have in common the same intervals of minor third and major second. The combination of notes in these two ostinatos results in the pentatonic scale, C-D-E-G-A. (See Example 64.)

Example 64



The second pattern is the first theme in Jupiter. This theme makes its first appearance from m.6 to m.12 in horns, violas and cellos. (See Example 65.)

### Example 65

The image shows a musical score for Example 65, consisting of four staves. The top three staves are for Horns in F (Hrn in F), and the bottom staff is for Violoncello (Vc). Each staff begins with a measure number '6' and the instruction 'Soli a 2'. Below each staff is the dynamic marking 'f molto pesante'. The music is in 2/4 time and features a complex rhythmic pattern of eighth and sixteenth notes.

The third pattern is a motive which consists of two sets of 3-note and one set of 4-note ascending arpeggiated figures. The motive first appears in horns in mm.29-31. (See Example 66.)

### Example 66

The image shows a musical score for Example 66, consisting of a single staff for Horn in F. The staff begins with a measure number '29' and the instruction 'a 2'. Below the staff is the dynamic marking 'f'. The music is in 2/4 time and features a simple ascending arpeggiated figure.

The fourth pattern is the second theme of Jupiter. This theme appears for the first time from m.65 to m.76 in horns, violins, violas and cellos. (See Example 67.)



### Example 67

Musical notation for Example 67, Horn in F. The score is in 2/4 time and consists of two staves. The first staff begins at measure 65, marked with a dynamic of *f* and the tempo marking *molto pesante*. The music is in the key of F major. The second staff begins at measure 71. The notation includes various rhythmic values and accidentals.

The fifth pattern is the counter melody of the second theme. It appears in the form of a melodic bass line in bass tuba and double basses from m.65 to m.76. (See Example 68.)

### Example 68

Musical notation for Example 68, Double Bass. The score is in 2/4 time and consists of two staves. The first staff begins at measure 65, and the second staff begins at measure 71. The notation shows a melodic bass line with various rhythmic values and accidentals.

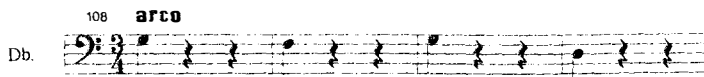
The sixth pattern is the third theme of Jupiter. It appears for the first time from m.108 to m.115 in horns. (See Example 69.)

### Example 69

Musical notation for Example 69, Horn in F. The score is in 2/4 time and consists of one staff. The music begins at measure 108. The notation includes various rhythmic values, accidentals, and triplets (indicated by a '3' above or below the notes).

The seventh pattern is a 4-note basso ostinato. It first appears in strings from m.108 to m.111. (See Example 70.)

### Example 70



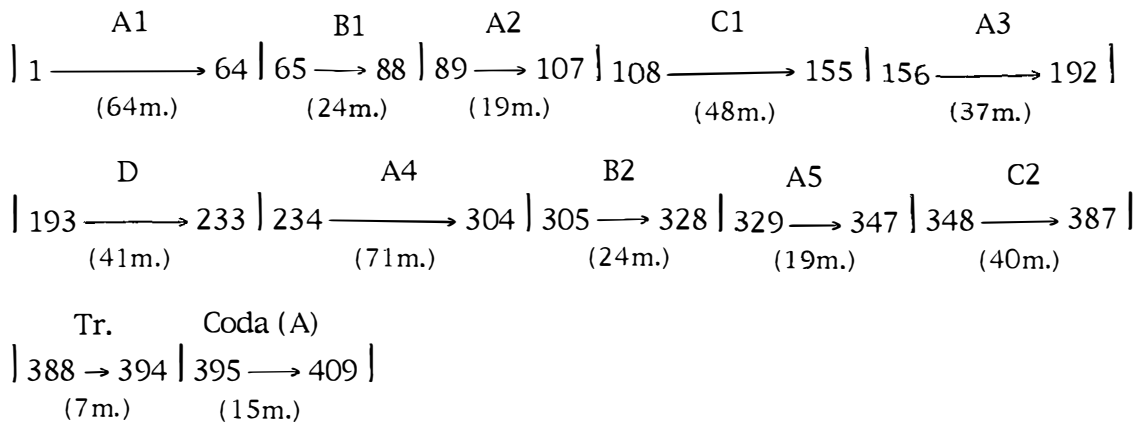
The eighth pattern is the fourth theme of Jupiter. This is the longest melodic line Holst writes in *The Planets*, totaling 17 measures in length. The fourth theme first appears in strings and horns from m.193 to the second beat of m.209. (See Example 71.)

### Example 71



The author divides the proportion of Jupiter into ten sections, a transition and a coda. (See Example 72.) If the coda (which uses material from the A sections) is to be considered as another A section, the result is the rondo form A-B-A-C-A-D-A-B-A-C-A.

## Example 72



## Melodic Analysis

Holst uses ascending scales in several places within Jupiter. The first ascending scale is in woodwinds from m.75 to m.77. Holst appears to be using two adjunct diatonic scales with several notes in common. (See Example 73.) The Mixolydian scale in D is used from the second half of m.75 to the first half of m.76. The B Locrian scale is used in the second half of m.76.

Example 73



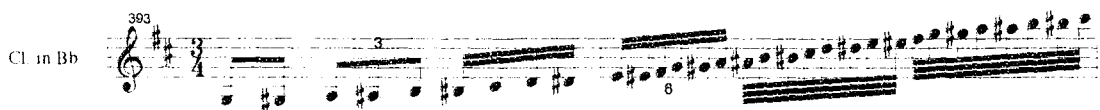
This takes place similarly in the woodwinds from m.315 to m.316. (See Example 74.) Holst uses the Dorian scale.

Example 74



Holst uses a chromatic scale near the end of Jupiter in woodwinds and strings from m.393 to m.394. (See Example 75.)

Example 75



The two sets of 3-note ostinatos (the first pattern) start from m.1 to m.20 using E-G-A and A-C-D. Both ostinatos continue to change respectively to notes F-A-B and B-D-E in mm.49-53, E<sup>b</sup>-G-A and A-C-D in mm.57-60, and D-E<sup>b</sup>-G and G-A-C# in mm.61-64. The intervals of these last pair of ostinatos (mm.61-64) are the reverse of ones before them.

The 4-note basso ostinato (the seventh pattern) starts from m.108 and continues until m.123. (See Example 76a.) The basso ostinato is transposed down one octave from m.124 to m.131. The ostinato is extended to six notes by repeating the note G from m.132 to m.139. (See Example 76b.) Holst uses the octave placement and the rest symbol to stretch the basso ostinato to eight notes from m.148 to m.151 and to ten notes from m.152 to m.155. (See Example 76c.)

### Example 76

a). 

b). 

c). 

Holst gives the timpani an important role in playing the thematic material for the first time in *The Planets*. The timpani plays the first theme of Jupiter for the first time in mm.16-20. (See Example 77.) The timpani later

plays the first theme again in mm.262-266 and mm.399-402.

### Example 77

The image shows a musical score for two instruments: Bass Tub and Timp. The score is in 2/4 time and covers measures 16 through 20. The Bass Tub part is written on a single staff with a bass clef. The Timp part is written on two staves with a bass clef and a brace on the left. Both parts are marked with a forte dynamic (*ff*). The Bass Tub part features a rhythmic pattern of eighth and sixteenth notes, while the Timp part features a pattern of quarter and eighth notes with rests.

Holst introduces five measures of entirely new material near the end of Jupiter from m.388 to m.392. The author thinks this material sounds as interesting as it looks on the paper. (See Example 78.) Notice that several instruments in these five measures are playing different ostinato figures. The ostinato figures in piccolos, flutes and clarinets repeat three and a half times. Both harps 1 and 2 also repeat the ostinato three and a half times. The violins and violas repeat the ostinato every half measure. The ostinato figures in piccolos, flutes, violins and violas play a G#m7 chord. The ostinato figures in clarinets and harps play an A<sup>b</sup>m7 chord. Both the G#m7 and A<sup>b</sup>m7 chords are enharmonic with each other.

Example 78

This musical score, titled "Example 78", is a complex orchestral arrangement. It features a variety of instruments and includes several performance markings. The score is organized into systems for different instrument groups:

- Percussion (Perc):** The top staff, featuring complex rhythmic patterns with multiple beams.
- Brass:** Includes parts for Trumpets in C (Tpt. in C), Trombones (Bsn. in Bb, Bsn. in Bb, Bass Tbn., Bass Tbn.), and Horns in F (Hrn. in F). The brass parts often feature *ff* (fortissimo) dynamics and *legato* markings.
- Woodwinds:** Includes parts for Clarinet in Bb (Cl. in Bb), Bassoon (Fag.), and Saxophone (Sax.).
- Strings:** Includes parts for Violins I and II (Vn. I, Vn. II), Viola (Vcl.), and Cello (Cb.). The string parts are marked *legato*.
- Other:** Harp I and Harp II (Hp. I, Hp. II) parts are also present, with *ff* markings.

Key performance markings include *ff* (fortissimo) and *legato* (legato). The score also contains various articulation marks, such as slurs and accents, and some specific performance instructions like "I II" and "III" above the Clarinet part.

## Rhythmic Analysis

Jupiter is where Holst first uses the ostinato integrated with rhythmic diminution. This takes place in woodwinds from m.100 to m.107. (See Example 79.)

Example 79

The image shows a musical score for five woodwind instruments: Piccolo (Picc.), Flute (Fl.), Oboe (Ob.), English Horn (E. H.), and Clarinet in Bb (Cl. in Bb). The score is in 2/4 time and begins at measure 100. Each instrument part starts with a half note followed by a quarter note, then a half note, and finally a quarter note. The notes are: Picc. (G4, A4, B4, C5), Fl. (G4, A4, B4, C5), Ob. (G4, A4, B4, C5), E. H. (G3, A3, B3, C4), and Cl. in Bb (F3, G3, A3, B3). The score is marked with a *cresc.* (crescendo) starting at measure 104 and continuing through measure 107. The notes become beamed eighth notes in the final measures.

## Harmonic Analysis

Unlike Venus and Mercury, Jupiter does not use several key signatures simultaneously. Like Mars, Jupiter does not have a key signature except in mm.194-245 and mm.388-392. Therefore, Jupiter could be in C-major or A-minor tonality. Because Holst concludes Jupiter with the CM chord, the author concludes Jupiter is written in C-major tonality.

Example 80 displays the chords used in all five of the A sections. In the first A section, Holst starts by using only the Am11 chord from m.1 to m.21. The Am11 chord is created as the result of two sets of the 3-note ostinatos, E-G-A and A-C-D. There are four groups of chordal repetitions in the A sections



which the author labels as a, b, c and d.

### Example 80

#### Section A1 - chord analysis mm.1-64

| Am11 | Am11 | Am11 | Am11 | Am11 | Am11 | Am11 | Am11 | Am11 | Am11 | Am11 | Am11 |

1

| Am11 | Am11 | Am11 | Am11 | Am11 | Am11 | Am11 | Am11 | Am11 | Am11 | Am11 | E | E | E |

12

a

b

| Dm11 FM7 F | F B<sup>♯</sup>7 | B<sup>°</sup>11 Dm | Q | Q | Q | Q | Q | FM7 F | F FM7 B<sup>♯</sup>7 | Dm G7 |

25

| G7 Dm B<sup>♯</sup>7 | Q | Q | Q | Q | Q | Q | Q | Q | Q | Bm7 | E | B<sup>°</sup>11 | B<sup>°</sup>11 | B<sup>°</sup>11 | B<sup>°</sup>11 |

36

c

| B<sup>♯</sup>7 | B<sup>♯</sup>7 E | Am7 | D | A<sup>°</sup>11 | A<sup>°</sup>11 | A<sup>°</sup>11 | A<sup>°</sup>11 | Q | Q | Q | C<sup>♯</sup>7 |

53

#### Section A2 - chord analysis mm.89-107

| Am C11 | C Am F<sup>♯</sup>7 | F<sup>♯</sup>7 C11 | C C11 F<sup>♯</sup>7 | Am7 F<sup>♯</sup>7 Am7 D11 |

89

d'

| Am11 F<sup>♯</sup>9 Am11 D11 | Am11 D11 Am11 D11 | Cm E<sup>b</sup>11 | E<sup>b</sup> Cm A<sup>♯</sup>7 | A<sup>♯</sup>7 E<sup>b</sup>11 |

94

| E<sup>b</sup> Cm | Q | Am11 | Am11 | Q | Am11 | Q | Am11 | Q |

99

Section A3 - chord analysis mm.156-192

| F# | F# | F# | F# | F# | F# | F# | F# | Em | Em | Em | Em | Cm | Cm | | | Cm | Cm | Cm |  
156

| Em | | | Cm | D<sup>b</sup> | A<sup>b</sup> | A<sup>b</sup> | E<sup>b</sup> | B<sup>b</sup> | B<sup>b</sup> | Cm | D<sup>o</sup> | Gm7 A<sup>b</sup>7 | | A<sup>b</sup>7 | A<sup>b</sup>7 Gm7 | |  
175

| Gm7 |  
192

Section A4 - chord analysis mm.234-304

| Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | F#m9 | F#m9 | F#m9 | F#m9 | F#m7 | | |  
234

| Fm9 | D<sup>o</sup>11 | Fm9 | D<sup>o</sup>11 | D<sup>o</sup>11 | D<sup>o</sup>11 | D<sup>o</sup>11 | Am11 | Am11 | Am11 | Am11 | Am11 |  
252

| Am11 | Am11 | Am7 | Am7 | | | | | <sup>a</sup> | Dm11 FM7 F | F B<sup>o</sup>7 | B<sup>o</sup>11 Dm | Q | Q | Q |  
264

<sup>b</sup> | Q | FM7 F | F FM7 B<sup>o</sup>7 | Dm G7 | G7 Dm B<sup>o</sup>7 | B<sup>o</sup>7 | B<sup>o</sup>7 | Am7 | D | A<sup>o</sup>11 | A<sup>o</sup>11 | A<sup>o</sup>11 |  
278 <sup>c</sup>

| A<sup>o</sup>11 | A<sup>o</sup>7 | A<sup>o</sup>7 D | Gm7 | C | G<sup>o</sup>11 | G<sup>o</sup>11 | D<sup>b</sup>13 | D<sup>b</sup>13 | Dm11 | Dm11 | Dm11 | Dm11 |  
290

| Dm11 | Dm11 |  
303



Section B2 - chord analysis mm.305-328

| Dm7 | B°11 G7 | C | C Am | Dm Dm9 | G9 Dm7 | Em Em9 | Em Em7 | C CM7 | Am7 | G7 |  
305

| Em7 G | C Am9 | Am Am9 D7 | G | G Em | Am Am7 Am9 | F#°7 D9 Am Am7 |  
316

| Bm Bm9 | Bm Am | Am7 Fm7 Gm7 | E°7 C9 | F7 | F7 Cm11 |  
323

Example 82 displays the chords used in both of the C sections. There are five groups of chordal repetitions in the first C section which the author labels as g, h, i, j and k. There are three groups of chordal repetitions in the second C section which the author continues the label as l, m and n.



Section C2 - chord analysis mm.348-387

	l	l'
D <sup>b</sup>   C <sup>b</sup>   D <sup>b</sup>   E <sup>b</sup> 7   D <sup>b</sup>   C <sup>b</sup>   D <sup>b</sup> 7   A <sup>b</sup> m   C Am7   B <sup>b</sup> B <sup>b</sup> M7 Gm7   C Am7   B <sup>b</sup> 11 B <sup>b</sup>		
348		
l''	m	m'
C Am7   B <sup>b</sup>   C7 Am9 C   Gm7 B <sup>b</sup> 11 B <sup>b</sup>   C F   B <sup>b</sup>   C F9   Gm   C F   Gm7 Gm11 Dm7		
360		
	n	
Gm11 Am9 F9   Gm11 C   C9 F   C11   C9 Dm9   Gm7 C Dm   C9 F   C11 Dm7		
370		
	n	
C9 Gm11 F9   Gm11 C Dm   C9 F   C11 Dm11   C9 Dm9   Gm7 C Dm   C9 F   C11 Dm7		
378		
	n'	
C9 Gm11 F9   Gm11 C Dm		
386		

Holst changes the key signature to three flats from m.194-245 which cover the entire D section and a portion of the fourth A section. The D section is in E<sup>b</sup>-major tonality. Example 83 displays the chords used in the D section. There are two groups of chordal repetitions which the author continues the label from the previous examples as o and p.



### Example 85

Section Coda - chord analysis mm.395-409

| C11 Gm11 | Q | Gm11 | Gm11 | C C11 | C9 C | C11 C9 | C C11 | | | B<sup>b</sup> | Q | Q | C | C | C ||  
 395

Like Mars and Mercury, Jupiter also has many identical interval patterns. The first interval pattern is between chords in the first A section from m.47 to m.58 and chords in the fourth A section from m.285 to m.296. (See Example 86.) These two sets of chords are a major second apart.

### Example 86

Chord and interval analysis mm.47-58

+5 -5 0 0 0 0 0 +5 +5 +5 -5 0  
 | Bm7 | E | B<sup>o</sup>11 | B<sup>o</sup>11 | B<sup>o</sup>11 | B<sup>o</sup>11 | B<sup>7</sup> | B<sup>7</sup> E | Am7 | D | A<sup>o</sup>11 | A<sup>o</sup>11 |

Chord and interval analysis mm.285-296

+5 -5 0 0 0 0 0 +5 +5 +5 -5 0  
 | Am7 | D | A<sup>o</sup>11 | A<sup>o</sup>11 | A<sup>o</sup>11 | A<sup>o</sup>11 | A<sup>7</sup> | A<sup>7</sup> D | Gm7 | C | G<sup>o</sup>11 | G<sup>o</sup>11 |

The second interval pattern is in the second A section between chords from m.89 to m.92 and from m.96 to m.99. (See Example 87.) These two sets of chords are a minor third apart.



### Example 87

Chord and interval analysis mm.89-92

+3 0 -3 -3 0 6 0  
 | Am C11 | C Am F#7 | F#7 C11 | C C11 F#7 |

Chord and interval analysis mm.96-99

+3 0 -3 -3 0 6 0  
 | Cm Eb11 | Eb Cm A7 | A7 Eb11 | Eb Cm |

The third interval pattern is between chords in the first B section from m.65 to m.73 and the second B section from m.305 to m.313. (See Example 88.) These two sets of chords are a major second apart.

### Example 88

Chord and interval analysis mm.65-73

-3 -4 +5 0 -3 +5 0 +5 -5 +2 0 0 0 -4  
 | Em7 | C#11 A7 | D | D Bm | Em Em9 | A9 Em7 | F#m F#m9 | F#m F#m7 | D Bm9 |

Chord and interval analysis mm.305-313

-3 -4 +5 0 -3 +5 0 +5 -5 +2 0 0 0 -4  
 | Dm7 | B11 G7 | C | C Am | Dm Dm9 | G9 Dm7 | Em Em9 | Em Em7 | C CM7 |

The fourth pattern is between chords in the first B section from m.78 to m.84 and the second B section from m.318 to m.324. (See Example 89.) These two sets of chords are a major third apart.

### Example 89

Chord and interval analysis mm.78-84

+5 0 -3 +5 0 0 -3 -4 -5 0 +2 0 0

| C#<sup>#</sup>7 C#<sup>o</sup>11 A7 A | D | D Bm | Em Em7 Em9 | C#<sup>o</sup>7 A7 Em Em7 | F#m F#m9 | F#m F#m7 |

Chord and interval analysis mm.318-324

+5 0 -3 +5 0 0 -3 -4 -5 0 +2 0 0

| Am Am9 D7 | G | G Em | Am Am7 Am9 | F#<sup>o</sup>7 D9 Am Am7 | Bm Bm9 | Bm Am |

The fifth pattern is between chords in the first C section from m.108 to m.111 and chords in the second C section from m.352 to m.355. (See Example 90.) These two sets of chords are a tritone apart.

### Example 90

Chord and interval analysis mm.108-111

+2 -2 -5

| G | F | G | Dm |

Chord and interval analysis mm.352-355

+2 -2 -5

| D<sup>b</sup> | C<sup>b</sup> | D<sup>b</sup>7 | A<sup>b</sup>m |

The sixth pattern is between chords in the first C section from m.116 to m.118 and the second C section from m.356 to m.358. (See Example 91.) These two sets of chords are a perfect fourth apart.

### Example 91

Chord and interval analysis mm.116-118

-3 +1 0 -3 +5 -3  
 | G Em7 | F FM7 Dm | G Em7 |

Chord and interval analysis mm.356-358

-3 +1 0 -3 +5 -3  
 | C Am7 | B<sup>b</sup> B<sup>b</sup>M7 Gm7 | C Am7 |

The seventh pattern is between chords in the first C section from m.119 to m.124 and the second C section from m.359 to m.364. (See Example 92.) These two sets of chords are a major third apart.

### Example 92

Chord and interval analysis mm.119-124

0 +2 -3 +1 +2 -3 +3 -5 +3 0 +2  
 | Dm7 F11 F | G Em7 | F | G7 Em9 G | Dm7 F11 F | G Em7 |

Chord and interval analysis mm.359-364

0 +2 -3 +1 +2 -3 +3 -5 +3 0 +2  
 | B<sup>b</sup>11 B<sup>b</sup> | C Am7 | B<sup>b</sup> | C7 Am9 C | Gm7 B<sup>b</sup>11 B<sup>b</sup> | C F |

The eighth pattern is between chords in the first C section from m.131 to m.135 and chords in the second C section from m.365 to m.369. (See Example 93.) These two sets of chords are a perfect fourth apart.

### Example 93

Chord and interval analysis mm.131-135

$\begin{array}{ccccccc} & +2 & +5 & +2 & & +5 & +5 & +2 \\ | & Dm7 & F11 & F & | & G & C & | & Dm7 & | & G & C9 & | & Dm & | \end{array}$

Chord and interval analysis mm.365-369

$\begin{array}{ccccccc} & +2 & +5 & +2 & & +5 & +5 & +2 \\ | & B^b & | & C & F9 & | & Gm & | & C & F & | & Gm7 & Gm11 & Dm7 & | \end{array}$

The ninth pattern is between chords in the first C section from m.138 to m.139 and the second C section from m.370 to m.371. (See Example 94.) These two sets of chords are a perfect fourth apart.

### Example 94

Chord and interval analysis mm.138-139

$\begin{array}{ccccccc} & +2 & & -4 & +2 & & +5 \\ | & Dm11 & Em9 & C9 & | & Dm & G & Dm9 & | \end{array}$

Chord and interval analysis mm.370-371

$\begin{array}{ccccccc} & +2 & & -4 & +2 & & +5 \\ | & Gm11 & Am9 & F9 & | & Gm11 & C & | \end{array}$

The tenth pattern is between chords in the first C section from m.140 to m.142 and chords in the second C section from m.380 to m.382. (See Example 95.) These two sets of chords are a perfect fourth apart.

### Example 95

Chord and interval analysis mm.140-142

+5 -5 +2 -2 +2  
| G9 C | G11 Am11 | G9 Am9 |

Chord and interval analysis mm.380-382

+5 -5 +2 -2 +2  
| C9 F | C11 Dm11 | C9 Dm9 |

The eleventh pattern is between chords in the first C section from m.143 to m.148 and the second C section from m.375 to m.380. (See Example 96.) These two sets of chords are a perfect fourth apart.

### Example 96

Chord and interval analysis mm.143-148

+5 +2 -2 +5 -5 +2 -2 -5 -2 +2 +5 +2 -2 +5  
| Dm7 G Am | G9 C | G11 Am7 | G9 Dm11 C9 | Dm7 G Am | G9 C |

Chord and interval analysis mm.375-380

+5 +2 -2 +5 -5 +2 -2 -5 -2 +2 +5 +2 -2 +5  
| Gm7 C Dm | C9 F | C11 Dm7 | C9 Gm11 F9 | Gm11 C Dm | C9 F |

### Other Aspects

The orchestral version of Jupiter is one measure longer than the 2-piano version, 409 measures vs. 408. This difference occurs when the EM chord that starts at m.22 is hold for three whole measures in the orchestral version as opposed to only two measures in the 2-piano version. (See Example 97.) From this point on, whenever the author compares the orchestral version to the 2-piano version, the measure number in reference will be that of the

orchestral version.

Example 97

2-Piano Version

The image displays a musical score for a 2-piano version of Example 97. It consists of two systems of music, each with a piano (p) part and a forte (f) part. The piano parts are written in treble clef with a 2/4 time signature, featuring a melodic line with eighth-note patterns. The forte parts are written in bass clef, providing harmonic support with chords and bass lines. The forte parts include the dynamic marking *fff* Full. The score is marked with a '21' at the beginning of each system, indicating the measure number.

# Orchestral Version

This page of an orchestral score, titled "Orchestral Version", contains 21 staves for various instruments. The staves are arranged vertically and include the following instruments from top to bottom: Flute (Flc), Clarinet in E-flat (Cl), Clarinet in B-flat (Cl in Bb), Bassoon (Bsn), Contrabassoon (Cb), Horn in F (Hrn. in F), Trumpet in C (Trp. in C), Tenor Trombone (Ten. Trb.), Bass Trombone (Bass Trb.), Tenor Tuba in B-flat (Ten. Tub. in Bb), Bass Tuba (Bass Tub.), Timpani (Timp), Snare Drum (Sn), Cymbals (Cymb), Violin (Vln), Viola (Vla), Cello (Vcl), and Double Bass (Cb). The score is written in a key signature of one sharp (F#) and a 3/4 time signature. It features complex rhythmic patterns, including sixteenth and thirty-second notes, and rests. Dynamic markings such as *mf* and *ff* are present throughout. A rehearsal mark "21" is placed at the beginning of each staff. A section marked "2" is indicated at the top right of the page.

There are inconsistencies where the orchestral version will have notes that do not exist in the 2-piano version. These missing notes create harmonic differences. Because there are many areas with this same problem, the author will only address the most obvious cases.

In the orchestral version, there are two sets of 3-note ostinatos in woodwinds from m.57 to m.64. In the 2-piano version, these two ostinatos do not exist. (See Example 98.)

### Example 98

#### 2-Piano Version

The musical score for Example 98, 2-Piano Version, consists of three systems of staves. The first system is for the strings (Str.), the second for the piano (Piano), and the third for the trumpet (Trpt.). The score is in 2/4 time and begins at measure 57. The piano part is marked *mf*. The string part features a rhythmic ostinato of eighth notes. The piano part has a melodic line with some rests. The trumpet part has a melodic line with some rests. The score ends at measure 64.



## Orchestral Version

Musical score for the Orchestral Version, measures 57-74. The score is in 2/4 time and features five staves: Piccolo (Picc.), Horns (H.), Trumpet in C (Trp in C), Violins (Vns.), and Viola. The Piccolo and Horns parts play a syncopated triad pattern starting at measure 57, marked *mf*. The Trumpet in C part plays a melodic line starting at measure 57, marked *f*. The Violins and Viola parts play a syncopated triad pattern starting at measure 57, marked *mf*. The Viola part is marked *div.* (divisi).

In the orchestral version, there are syncopated triads in the tenor trombone and the bass trombone from m.65 to m.74. In the 2-piano version, the syncopation appears only as 2-note harmonic intervals in the right hand of the second piano. (See Example 99.) This syncopated triad pattern appears again (with the same problem) in mm.77-88, 305-314 and 318-325.

## Example 99

### 2-Piano Version

Musical score for the 2-Piano Version, measures 65-74. The score is in 2/4 time and features two staves: the right hand (RH) and the left hand (LH). The RH part is marked *f molto pesante* and the LH part is marked *a tempo*. The RH part plays a syncopated triad pattern starting at measure 65, marked *f*. The LH part plays a syncopated triad pattern starting at measure 65, marked *mf*. The LH part is marked *mf* Brass.

Orchestral Version

**a tempo**

65 *f molto pesante*

Hrn. in F *f molto pesante*

65 *f molto pesante*

65 *f molto pesante*

Ten. Trb. *mf*

65 *mf*

Bass Trb. *mf*

65 *mf*

Bass Tub. *mf*

65 *f molto pesante non legato*

Vns. *f molto pesante non legato*

65 *f molto pesante non legato*

Vas. *f molto pesante non legato*

65 *f molto pesante non legato*

Vc. *f molto pesante non legato*

65 *f*

Db. *f*

**a tempo**

There are several differences between the 2-piano version and the orchestral version from m.116 to m.123. (See Example 100.) First, the 2-piano version has a triad in root position on the first beat from m.116 to m.123, however, there is no triad on the first beat of the orchestral version. Second, the arpeggiated figures in the second piano are different from the figures in horns in m.119 and m.123. Third, the arpeggiated figures in mm.117, 121 and 122 in horns are slightly different from the figures in the second piano.

### Example 100

#### 2-Piano Version

The musical score for Example 100, 2-Piano Version, is presented in 3/4 time. It consists of four staves:

- Wood. Str. (Woodwinds and Strings):** The top staff, starting at measure 116, features a melodic line with eighth notes and two triplet markings in measures 119 and 120.
- Second Piano:** The second staff, also starting at measure 116, shows a melodic line with a triplet in measure 123.
- Horns:** The third staff, starting at measure 116, contains arpeggiated figures in the right hand, with a triplet in measure 123.
- First Piano:** The bottom staff, starting at measure 116, shows arpeggiated figures in the left hand, with a triplet in measure 123.

Orchestral Version

This page of an orchestral score, labeled 'Orchestral Version', covers measures 116 to 118. The music is in 3/4 time and features a variety of instruments. The woodwinds (Ob., E.H., Cl. in Bb, Bcl. in Bb, Bn., Dbn.) and strings (Vns., Vas., Vc., Db.) are playing a melodic line with triplets and accents. The brass (Hrn. in F) and percussion (Timp.) provide harmonic support. The dynamic marking is *f* (forte). The score includes performance instructions such as *f*, *a*, and *3* (triplet). The page number 103 is centered at the bottom.

In the orchestral version, the woodwinds play arpeggiated triad figures in mm.124, 126 and 128-131. In the 2-piano version, the first piano plays the same figures but in parallel intervals instead of the complete triads. (See Example 101.) A similar problem also appears when the arpeggiated figures return in mm.356-363.

### Example 101

#### 2-Piano Version

The image displays a musical score for a 2-piano version, divided into two systems. The first system covers measures 124 to 127, and the second system covers measures 128 to 131. The score is written for two pianos (left and right hands) and includes parts for Woodwinds and Trumpets. The key signature is one flat (B-flat major/D minor) and the time signature is 3/4. The first system (measures 124-127) features arpeggiated triad figures in the woodwinds and first piano, with the trumpet playing a rhythmic accompaniment. The second system (measures 128-131) shows the return of the arpeggiated triad figures, with the first piano playing parallel intervals. The score includes dynamic markings such as *f* and *8va*, and articulation marks like slurs and accents. The woodwind part is labeled "Wood." and the trumpet part is labeled "Trpt.".

Orchestral Version

This page of an orchestral score, labeled 'Orchestral Version', covers measures 124 through 132. The score is written for a full orchestra and includes parts for Piccolo (Picc.), Flute (Fl.), Oboe (Ob.), English Horn (E.H.), Clarinet in B-flat (Cl in Bb), Horn in F (Hrn in F), Trumpet in C (Trp. in C), Tenor Trombone (Ten. Trb.), Tambourine (Tamb.), Violin (Vns), Viola (Vas), Violoncello (Vc.), and Double Bass (Db.).

The music is in 3/4 time and begins at measure 124. The Piccolo, Flute, Oboe, and Clarinet in B-flat parts feature complex, rhythmic patterns with frequent triplets and sixteenth-note runs. The English Horn and Horn in F parts play a more melodic line with some triplet figures. The Trumpet in C part starts with a forte (*f*) dynamic and includes triplet patterns. The Tenor Trombone part has a rest until measure 130, where it enters with a forte (*f*) dynamic and triplet patterns. The Tambourine part features a trill (*tr*) in measure 124 and a rhythmic pattern of eighth notes. The Violin and Viola parts play a steady accompaniment of eighth notes. The Violoncello and Double Bass parts play a steady accompaniment of quarter notes.

The page number 105 is centered at the bottom of the page.

In orchestral version, the tenor trombone and the bass trombone play a series of triads from m.137 to m.139. In the 2-piano version, these triads do not exist. (See Example 102.)

### Example 102

#### 2-Piano Version

The musical score for the 2-Piano Version of Example 102, measures 137-139, is presented in a grand staff format. It consists of four staves: two for the right hand (treble clef) and two for the left hand (bass clef). The key signature is one flat (B-flat major or D minor), and the time signature is 3/4. The score is divided into three measures. In measure 137, the right hand plays a sequence of eighth notes with a dotted quarter note, while the left hand plays a series of chords. Measure 138 features a triplet of eighth notes in the right hand and a triplet of eighth notes in the left hand. Measure 139 continues the triplet pattern in both hands. The notation includes various note values, rests, and triplet markings.

Orchestral Version

Musical score for an orchestral version, measures 137-140. The score includes parts for Piccolo, Flute, Oboe, Clarinet in Bb, Double Bass, Trumpets (Tenor and Bass), Trombones (Tenor and Bass), Tubas (Tenor and Bass), Timpani, Violins (Vns.), Violas (Vas.), Violoncello (Vc.), and Double Bass (Db.).

The score is written in 3/4 time and features a key signature of one sharp (F#). The measures are numbered 137, 138, 139, and 140. The Piccolo, Flute, Oboe, and Clarinet in Bb parts play a melodic line with eighth notes. The Double Bass part plays a simple bass line. The Trumpets and Trombones play chords. The Tubas play a melodic line with triplets. The Timpani play a rhythmic pattern. The Violins, Violas, and Violoncello play a melodic line with triplets. The Double Bass part plays a simple bass line.



In the orchestral version, there are tremolos in violins 1 and 2 from m.234 to m.240. Violins 1 play F to E<sup>b</sup> while violins 2 play B<sup>b</sup> to E<sup>b</sup>. In the 2-piano version, the tremolo in first piano plays E<sup>b</sup> and B<sup>b</sup> to F from m.234 to m.237. (See Example 103.) There is no tremolo in the 2-piano version from m.238 to m.240. Because the orchestral version and the 2-piano version start on different notes, the orchestral version places accent on notes F and B<sup>b</sup> while the 2-piano version places accent on notes E<sup>b</sup> and B<sup>b</sup>. The tremolo pattern reappears in mm.246-250 and with same differences as noted.

### Example 103

#### 2-Piano Version

The musical score for the 2-Piano Version of Example 103, measures 234-240, is presented below. It consists of five staves. The top staff is for strings (Str.) with a tremolo pattern starting at measure 234. The middle staff is for woodwinds (E.H., Cl., Ob., Fl.) with melodic lines. The two bottom staves are for piano accompaniment. The tempo is marked 'Tempo I.' and dynamics include 'p' and 'pp'. An '8va' marking is present at the end of the first staff.



In the orchestral version, the woodwinds play two sets of ostinato at the same time from m.295 to m.304. In the 2-piano version, there is only one set of ostinato. (See Example 104.)

### Example 104

#### 2-Piano Version

The musical score for Example 104, 2-Piano Version, is presented in two systems. The first system covers measures 295 to 300, and the second system covers measures 300 to 304. The score is written for Piano, Horns, Trp., and Ten. Tuba.

**System 1 (Measures 295-300):**

- Piano:** The right hand plays a complex rhythmic pattern of eighth notes, marked *8va*. The left hand plays a series of chords, marked *p*.
- Horns:** The Horns part is marked *Horns* and features a melodic line starting in measure 298.
- Trp.:** The Trumpet part is marked *Trpt.* and features a melodic line starting in measure 298.

**System 2 (Measures 300-304):**

- Piano:** The right hand continues the complex rhythmic pattern, marked *8va*. The left hand continues the chordal accompaniment, marked *p*.
- Ten. Tuba:** The Tenor Tuba part is marked *Ten. Tuba* and features a melodic line starting in measure 300.
- Tempo/Expression:** The instruction *accel. e cresc.* is present in both systems, indicating an increase in tempo and dynamics.

# Orchestral Version

293 *mf* *a 2* *accelerando*

Picc. *mf* *cresc.*

Fl. *mf* *a 2* *cresc.* *a 2*

Ob. *a 3* *mf* *cresc.* *a 3*

Cl in Bb *mf* *a 3* *cresc.* *a 3*

Ha in F *f* *a 2*

Trp in C *f* *a 2* *marc.* *cresc.* *a 2*

Ten Trb. *f* *marc.* *cresc.* *a 2*

Tamb. *f*

Cymb. *p* *cresc.*

Vns. *div.* *mf* *unis.*

Vas. *div.* *mf* *unis.*

Vc. *mf* *accelerando*

111

In the orchestral version, the scales in woodwinds start from the second half of m.315 to m.316. In 2-piano version, the scale appears only in m.316. (See Example 105.)

### Example 105

#### 2-Piano Version

The musical score for Example 105, 2-Piano Version, consists of four staves. The top two staves are in treble clef, and the bottom two are in bass clef. The time signature is 2/4. Measure 315 shows a rest in the upper staves and a bass line with a dotted quarter note followed by an eighth note. Measure 316 features a scale starting in the upper staves, with a slur over the notes and a '7' below the staff indicating a fingering. The bass line continues with a dotted quarter note followed by an eighth note.

# Orchestral Version

315

Fl.

a 2

*mf*

7

315

Cl. in Bb

*mf*

7

11 *mf*

315

Bcl. in Bb

*mf*

7

315

Bn.

a 3

*mf*

315

Hrn. in F

315

Ten. Trb.

315

Bass Tub.

315

Vas.

315

Vc.

315

Db.

The orchestral version shows that Holst created a harmonic imitation between mm.108-111 and mm.112-115. There is a possibility of a misprint in the 2-piano version in m.114. In that the note F on the first beat of the second piano should be written as the note G. Additionally, the chord on the right hand of the second piano should be a Gm instead of the B°. (See Example 106.)

### Example 106

#### 2-Piano Version

The musical score for Example 106, 2-Piano Version, covers measures 108 to 114. It is written in 3/4 time. The top two staves are for the piano, both in treble clef. The bottom two staves are for the 6 Horns and Strings, both in bass clef. The Horns part begins in measure 108 with a *f* dynamic and a *pesante* marking. The Horns part features a melodic line with triplets in measures 112, 113, and 114. The Strings part provides a rhythmic accompaniment with chords and rests.

## Orchestral Version

108 *a 2*  
*f*

Hrn. in F

108 *a 2*  
*f*

108 *a 2*  
*f*

108 *arco*  
*f*

Vns.

108 *arco*  
*f*

Vas.

108 *arco*  
*f*

Vc.

108 *arco*  
*f*

Db.

108 *arco*  
*f*

There appears to be a misprint on the first beat in m.182 of the piano version. The note B of the right hand in first piano should be written B<sup>b</sup> as the harmonic analysis of the orchestral version indicates only an E<sup>b</sup>M chord in this measure. In the orchestral version, the first beat is also written B<sup>b</sup> in the oboe 1. (See Example 107.)



# Example 107

## 2-Piano Version

Musical score for the 2-Piano version of Example 107, measures 182-183. The score is written for two pianos in 2/4 time. The key signature has one flat (B-flat). The melody in the right hand starts on a whole note B-flat, followed by a half note A-flat, a quarter note G, and a quarter note F. The left hand provides accompaniment with a whole note B-flat, a half note A-flat, and a quarter note G. The second measure continues the melody with a quarter note E, a quarter note D, and a quarter note C, while the left hand has a whole note B-flat, a half note A-flat, and a quarter note G.

## Orchestral Version

Musical score for the Orchestral version of Example 107, measures 182-183. The score is written for an orchestra in 2/4 time. The key signature has one flat (B-flat). The instruments and their parts are: Piccolo (Picc.), Flute (Fl.), Oboe (Ob.), English Horn (E.H.), Bassoon (Bn.), Bassoon (Vas.), and Violoncello (Vc.). The Piccolo, Flute, Oboe, and English Horn parts have a whole note B-flat, followed by a half note A-flat, and a quarter note G. The Bassoon part has a whole note B-flat, a half note A-flat, and a quarter note G. The Bassoon (Vas.) and Violoncello parts have a whole note B-flat, a half note A-flat, and a quarter note G.

Holst uses all three types of the motion writing; the contrary, oblique and parallel motions. He uses all three of them in the same areas. The first area is from m.25 to m.27. (See Example 108.) The second area is from m.272 to m.274. Both areas are similar, and both use the entire orchestra.

Example 108

25 a 2  
Picc

25 a 2  
Fl

25  
Ob

25  
E.H.

25  
Cl. in Bb

25  
Bsn in Bb

25  
Bsn

25  
Dbn

25  
Hrn in F

25  
Trp in C

25  
Ten Trb.

25  
Bass Trb.

25  
Ten. Tub in Bb

25  
Bass Tub.

25  
Timp

25  
Vns

25  
Vas

25  
Va

25  
Cb

*fff*

## SATURN, THE BRINGER OF OLD AGE

### Form Analysis

Saturn was created using patterns similar to the previous movements with the exception of Venus. Most of these patterns are different types of ostinatos.

Holst starts Saturn with a harmonic ostinato, the first pattern. (See Example 109.) This is the first time Holst ever uses a harmonic ostinato in *The Planets*. The ostinato starts with the first harmonic interval B-F-A which is a descending major second to the second harmonic interval A-E<sup>b</sup>-G. These are harmonic intervals of two half-diminished seventh chords, B<sup>9</sup>7 and A<sup>9</sup>7. Both of these chords do not include a third.

Example 109

**Adagio.**

1 11

Fl.

Bass Fl. in G

Hp. I.

Hp. II.

The second pattern is the first theme of Saturn. This theme appears in double basses for the first time from m.4 to m.7. (See Example 110.)

### Example 110

Musical notation for Example 110, showing a descending 4-note melodic ostinato in the double bass part. The notation is in 4/4 time, starting at measure 4. The notes are G2, F2, E2, and D2, forming a descending scale. The dynamic marking is *p*.

The third pattern is a descending 4-note melodic ostinato. The ostinato first appears in cellos and double basses in m.28. (See Example 111.)

### Example 111

Musical notation for Example 111, showing the second theme of Saturn in the cello and double bass parts. The notation is in 4/4 time, starting at measure 28. The tempo marking is **Poco animato**. The cello part is marked *pizz.* and the double bass part is marked *unis. pizz.*. The dynamic marking is *p*.

The fourth pattern is the second theme of Saturn. The second theme first appears in mm.53-56 in flutes and bass flute. (See Example 112.)

### Example 112

Musical notation for Example 112, showing the second theme of Saturn in the flute and bass flute parts. The notation is in 4/4 time, starting at measure 53. The flute part is marked *pp* and *simile*. The bass flute part is marked *Soli*, *pp*, and *simile*.

The fifth pattern is a 4-note ostinato in the left hand of harp 2. The 4-note ostinato, B-G#-B-C, starts from m.105 and continues until m.115. (See Example 113.)

### Example 113

105

Hp II.

*pp* *harmonica* *simile*

105

The sixth pattern is a 3-note ostinato in the right hand of harp 2. The 3-note ostinato, C#-E-G#, also starts from m.105 and continues until m.115 like the sixth pattern. (See Example 113.) This 3-note ostinato is always followed by two quarter rest symbols.

The seventh pattern is a melodic ostinato in flutes and bass flute which starts from m.125 to m.144. (See Example 114.) This melodic ostinato appears in the form of a descending and ascending arpeggiated Am7 chord. Holst also adds harmonic lines in flute 2 and 3 to double the melodic line in flute 1. This melodic ostinato can also be considered a harmonic ostinato. This ostinato is always followed by a quarter rest.

### Example 114

125

Fl.

125

Bass Fl. in G

The eighth pattern is a 4-note melodic ostinato in horns. The 4-note ostinato, A-G-C-A, appears from m.125 to m.144. (See Example 115.) Holst adds harmonic lines in horns 2 and 5 to double the melodic line in horn 1. Holst imitates the same ostinato two beats later in horn 3 with the harmonic doubling in horns 4 and 6.

### Example 115

Musical score for Example 115, showing three staves of Horns in F. The score starts at measure 125 and features a melodic ostinato pattern of arpeggiated Am7 chords. The notation includes treble clefs, a 3/2 time signature, and various chord symbols and melodic lines.

The ninth pattern is a melodic ostinato in harps 1 and 2 which also starts from m.125 to m.144. (See Example 116.) Harp 2 starts two beats behind harp 1. The melodic ostinato appears in the form of three descending and one ascending arpeggiated Am7 chord. Each set of these melodic ostinatos is followed by a sixteenth rest.

### Example 116

Musical score for Example 116, showing four staves of Harps I and II. The score starts at measure 125 and features two pairs of harmonic ostinatos. The notation includes treble clefs, a 3/2 time signature, and various chord symbols and melodic lines. The second harp part (Hp II) begins with a *pp* dynamic marking.

The tenth pattern is two pairs of the harmonic ostinatos. These two pairs of ostinatos appear near the end of Saturn from m.147 to m.154. (See Example 117.) Each appearance of these ostinatos is always followed by a

quarter rest. The first pair of ostinatos start in harp 1 on the right hand and imitates one beat later on the left hand. The second pair of the ostinatos starts in harp 2 on the right hand on the same beat with the left hand of harp 1. This combination is followed by the left hand of harp 2 by one beat. Both pairs of these ostinatos have the same harmonic spelling of the CM7 chord, C-E-G-B. The first pair of the harmonic ostinato is in harp 1. The second pair is in harp 2. Both ostinatos come in the form of the ascending interval. The first pair is the ascending interval of E to G and B to C. The second pair is the ascending interval of C to E and G to B.

### Example 117

The musical score for Example 117 consists of four staves. The top two staves are for Harp I (Hp. I), with the right hand in treble clef and the left hand in bass clef. The bottom two staves are for Harp II (Hp. II), with both hands in bass clef. The music begins at measure 147. The right hand of Harp I plays a series of chords, while the left hand of Harp I and both hands of Harp II play a rhythmic ostinato pattern. The ostinato consists of ascending intervals: E-G and B-C in the first pair, and C-E and G-B in the second pair. The overall texture is dense due to the frequent rests in the Harp I right hand.

The author divides Saturn into six sections. (See Example 118.) As a result, Saturn has the unique form of the A-B-C-A-B-D.

### Example 118

A1	B1	C	A2	B2	D
1 → 27	28 → 49	50 → 77	77 → 104	105 → 124	125 → 155
(27m.)	(22m.)	(27.5m.)	(27.5m.)	(20m.)	(31m.)

Both of the B sections still use thematic material from the first A section. However, the harmonic ostinato in the first A section is replaced by new



material in form of a 4-note melodic ostinato in the B section. The second and the fifth sections could be called A' except that the author feels it would be more distinctive to call them the B sections.

### Melodic Analysis

Holst uses rhythmic diminution and rhythmic augmentation at different times in the first theme of Saturn. Example 119a shows the theme or the second pattern in its original form. Example 119b shows the rhythmic diminution on the first note of the theme in each appearance of the first B section. Example 119c shows the rhythmic augmentation on the fourth note of the theme in each appearance of the second A section. Example 119d shows the rhythmic augmentation on every note of the theme except the first note. This appears in both the second B section and the D section.

Example 119

a). 

b). 

c). 

d). 

The third pattern starts with a 4-note descending melodic ostinato at the beginning of the first B section in m.28 and continues until m.44. This ostinato, however, changes pitch but still keeps its descending manner. The 4-note ostinato contains the notes B-A-G#-E from m.28 to m.37. (See Example 120a.) The ostinato changes to E<sup>b</sup>-D<sup>b</sup>-C-A<sup>b</sup> in mm.38-40, to F-E<sup>b</sup>-D<sup>b</sup>-A<sup>b</sup> in mm.41-43 and to F-E<sup>b</sup>-D<sup>b</sup>-C in m.44. The 4-note ostinato returns in the second B section from m.105 to m.124 in two different variations. The first variation is the double ostinatos with augmented rhythmic value in harp 1 from m.105 to m.116. These double ostinatos use the same notes except each starts on a different note. The double ostinatos use notes G#-E-C#-B from m.105 to 114 and change to G#-E-C#-A# in mm.115-116. (See Example 120b.) The second variation is a similar double ostinato with its imitation one octave higher and half a beat behind in a syncopation style. The second variation uses notes B-A-F#-D and starts from m.117 to m.124. (See Example 120c.)

### Example 120

a).

**Poco animato**  
28 **pizz.**

Vc. *p*

Db. *p*

b).

105

Hp. I. *harmonics pp simile*

105 *pp*

c).

117

Fl. *pp*

Bass Fl. in G *pp*

Hp. I. *naturale*

Holst uses scale only once in Saturn in mm.44-45. It is the scale bass line in A<sup>b</sup>-major. The scale starts on the note F and descends to the note G. (See Example 121.)

### Example 121

44

Db.

## Rhythmic Analysis

Holst uses rhythmic syncopation in many areas of Saturn. The first of such areas is the first pattern or the harmonic ostinato at the beginning of Saturn. (See Example 122a.) However, the syncopation is more prominent when the first pattern return in m.77. (See Example 122b.)

Example 122a

**Adagio.**

Fl.

Bass Fl. in G

Hp. I

Hp. II

Example 122b

**ani mato**  
a 3

Fl. *fff* *pesante*

Ob. *fff* *pesante*

E.H. *fff* *pesante*

Bass Ob. *fff* *pesante*

Cl. in Eb *fff* *pesante*

Bcl. in Bb *fff* *pesante*

Hrn. in F *fff* *pesante*

Bells *fff* *With metal striker*

Hp. I. *fff*

Hp. II. *fff*

Vns. *fff*

Vis. *fff*

Vc. *fff*

The second area of rhythmic syncopation is when the 4-note melodic ostinato of the third pattern returns in m.117. Example 123a shows the 4-note ostinato in its original form in 4/4 meter. Example 123b shows the ostinato when it returns in both the original form and its syncopation in 3/2 meter.

Example 123

a).

**Poco animato**  
28 **pizz.**

Vc.

28 **unis. pizz.**

Cb.

b).

Fl.

117

7

pp

Bass Fl. in G

117

pp

Hp. I.

117

naturale

It is interesting that Holst manages to dislocate the implied accent of the two ostinatos which appear from m.105-116. (See Example 124.) These two ostinatos are the sixth and the seventh patterns in harp 2. Notice that both of these ostinatos never play on the first down beat.

## Example 124

The image shows a musical score for Harp II, labeled 'Hp II' on the left. It consists of two systems of staves. The first system starts at measure 105 and ends at measure 110. The second system starts at measure 111 and ends at measure 116. The music is written in a 3/2 time signature with a key signature of one sharp (F#). The first system includes the instruction 'harmonics' in measure 105 and 'simile' in measure 106. The dynamics are marked 'pp' (pianissimo) in measure 105. The notation features a complex rhythmic pattern with many rests and accents, characteristic of Holst's style.

Holst introduces three new different ostinatos from m.125 to m.144 with a short break in mm.141-142. (See Example 125.) The first ostinato is in flutes and bass flute. The second ostinato is in horns. The third ostinato is in harps 1 and 2. Notice that this area has 3/2 meter which also could be considered as six beats. The first and the second ostinatos are both 5-beat ostinatos in a measure of six beats. The third ostinato is a 4-beat ostinato in a measure of six beats. These missing beats create a shifting of the ostinatos, therefore creating a change in accents.

Example 125

125

Fl.

Bass Fl. in G

Cl. in Bb

Dbn.

Hrn. in F

Bells.

soft felt striker

*pp*

Hp. I.

Hp. II.

Org. Ped.

*pp*  
**tutti**

*pp*  
**tutti**

*pp*  
**tutti**

*pp*  
**tutti**

*pp*  
**tutti**

*pp*  
**tutti**

*pp*  
**tutti**

*pp*  
**tutti**

*pp*  
**tutti**

*pp*  
**tutti**

*pp*  
**tutti**



## Harmonic Analysis

The harmonic ostinato or the first pattern starts from the beginning of Saturn until m.26. This ostinato returns twice in the second A section and the D section. In the second A section from m.77 to m.104, the ostinato returns in two sets. (See Example 126.) The first set starts on the third beat of m.77. The second set starts half a beat after the first set. The first set of ostinatos start with the higher note descending a major second to the lower note. The first set is being played by flutes, bass flute, English horn, clarinets, harps 1 and 2 (right hand only), and violins. The second set of 2-note ostinatos start with the lower note ascending a major second to the higher note. The second set is being played by bass oboe, bassoons, horns, bells, harps 1 and 2 (left hand only), violas, and cellos.

Example 126

**animato**  
**a 3**

Fl. *fff* **pesante**

Ob. *fff* **pesante**

E.H. *fff* **pesante**

Bass Ob. *fff* **pesante**

Cl. in Bb *fff* **pesante**

Bcl. in Bb *fff* **pesante**

Hrn. in F *fff* **pesante**

Bells. *fff* **With metal striker**

Hp. I. *fff*

Hp. II. *fff*

Vns. *fff*

Vas. *fff*

Vc. *fff*

In the D section from m.125 to m.144, Holst reduces the first pattern from a harmonic ostinato to a 2-note melodic ostinato in bells with one beat extended on the first note. (See Example 127.)

### Example 127

125 **soft felt striker**

Bells.





Section B2 - chord analysis mm.105-124

i

\_\_\_\_\_

| E C#m7 | E C#m7 E C#m7 | C#m7 E C#m7 | E C#m7 E C#m7 | C#m C#m7 C#m C#m9 |  
105

i

\_\_\_\_\_

| EM7 C#m9 EM7 C#m9 | C#m C#m7 C#m C#m7 | C#m11 | C#m C#m7 | C#m11 | C#m11 |  
110

| F#7 F#9 C#m11 F#9 F#7 F#9 | Bm Bm7 | Bm7 Bm9 | Bm9 | Bm7 | Bm11 | Bm7 | Bm11 |  
116

| E9 |  
124

Example 130 displays the chords used in the C section. There is one additional group of chordal repetition in the C section which the author continues the label from the previous examples as j.

Example 130

Section C - chord analysis mm.50-77

j

\_\_\_\_\_

| | | | Cm Bm GM7 | Cm D B<sup>b+7</sup> | E<sup>b</sup> E<sup>b</sup>M7 Fm | D Bm GM7 | Cm Bm GM7 | Cm D B<sup>b+7</sup> |  
50

\_\_\_\_\_

| B F | B F | B | A G# G#7 | A A7 G# | A F#m7 E | E E7 | Cm Bm GM7 | Cm D B<sup>b+7</sup> |  
59

j

\_\_\_\_\_

c

| E<sup>b</sup> E<sup>b</sup>M7 Fm | D Bm GM7 | Cm Bm GM7 | Cm D B<sup>b+7</sup> | B F | B F | C F#m | C F#m | E<sup>b</sup> Am |  
68

| E<sup>b</sup> E<sup>b+11</sup> |  
77

Example 131 displays the chords used in the D section which are in C-major tonality, however, Holst ends Saturn with an Em chord.

### Example 131

Section D - chord analysis mm.125-155

k	k	
Am7   Am7 Am9   Am9   Am7   Am7   Am11 Am7   Am7   Am7 Am9   Am9   Am7		
125		
	1	
Am7   Am11 Am7   Am7   Am7 Am9   Am9   Am7   FM7   Dm7 Dm9   Am7   Am7		
135		
	k'	
1	m	m
FM7   Dm7 Dm9   CM7   CM7   CM7   CM7   CM7   CM7 Em CM7   CM7   CM7   Em		
145		

### Other Aspects

Holst uses contrary motion and parallel motion writing in the C section. In harps 1 and 2, he wrote contrary motion from m.50-54 and wrote parallel motion from m.55 to the first half of m.57. (See Example 132.)

### Example 132

The musical score for Example 132 shows two harp parts, Hp I and Hp II, in 4/4 time. Both parts begin at measure 50. The first four measures (50-54) feature contrary motion, with the left hand moving down and the right hand moving up. The last two measures (55-56) feature parallel motion, with both hands moving in the same direction. Dynamics are marked as *p* (piano) and *pp* (pianissimo). Chord symbols  $Bb$  and  $Eb$  are indicated above the staves.

There are several areas of harmonic inconsistency between the 2-piano version and the orchestral version. The first area is where Holst creates three new ostinatos in the D section from m.125 to m. 144. The ostinato in flutes and bass flute, the ostinato in bells and the ostinato in horns 4-6 do not exist in the 2-piano version. (See Example 133.) The removal of all these ostinatos is understandable. It is because two pianos are not capable of performing all the music in this area.

### Example 133

#### 2-Piano Version

The musical score for the 2-Piano Version of Example 133, measures 125 to 144, is presented in four staves. The top two staves are grouped by a brace on the left, representing the right and left hands of the first piano. The bottom two staves are grouped by a brace on the left, representing the right and left hands of the second piano. The music is in 3/2 time. The first piano part features a complex, rhythmic melody with many sixteenth notes and slurs. The second piano part provides a harmonic accompaniment with chords and some melodic lines. The notation includes various musical symbols such as slurs, ties, and dynamic markings.



Orchestral Version

125

Fl.

Bass Fl. in G

Cl. in Bb

Dbn.

125

Hrn. in F

125

Bells

soft felt striker

pp

125

Hp. I.

125

Hp. II.

125

Org. Ped.

125

pp

tutti

125

pp

tutti

125

pp

tutti

125

pp

tutti

125

pp

125

pp

pp

The second area of inconsistency is in the first B section. The note D on the second beat of m.36 and m.37 do not exist in the 2-piano version. (See Example 134.)

Example 134

2-Piano Version

Musical score for the 2-Piano Version of Example 134, measures 36-37. The score is in 4/4 time and consists of four staves. The top two staves are for the piano, and the bottom two are for the bass. The key signature has one sharp (F#). The first staff (treble clef) has a measure rest for both measures. The second staff (treble clef) is labeled '36 p Trpt.' and contains the melody. The third staff (treble clef) and fourth staff (bass clef) contain the piano accompaniment. The melody in measure 36 starts with a quarter note D4, followed by quarter notes E4, F#4, G4, and A4. In measure 37, it continues with quarter notes B4, A4, G4, and F#4.

Orchestral Version

Musical score for the Orchestral Version of Example 134, measures 36-37. The score is in 4/4 time and consists of four staves. The top staff is for Trp. in C, the second for Ten. Trb., the third for Vc., and the fourth for Db. The key signature has one sharp (F#). The Trp. in C staff has a measure rest for both measures. The Ten. Trb. staff is labeled '36 p' and contains the melody. The Vc. and Db. staves contain the piano accompaniment. The melody in measure 36 starts with a quarter note D4, followed by quarter notes E4, F#4, G4, and A4. In measure 37, it continues with quarter notes B4, A4, G4, and F#4.

The third area is also in the first B section. There are E<sup>b</sup> notes on the second beat of m.46 and m.47 in the 2-piano version. The orchestral version does not have these notes. (See Example 135.)

### Example 135

#### 2-Piano Version

The musical score for Example 135, 2-Piano Version, consists of four staves. The top two staves are for the Horns, and the bottom two are for the Piano and Bass. The music is in 4/4 time and B-flat major. Measure 46 features a piano (*f*) dynamic. The Horns part has a whole note chord of B-flat major (Bb, D, F) on the first beat and a whole note chord of B-flat major (Bb, D, F) on the second beat. The Piano part has a whole note chord of B-flat major (Bb, D, F) on the first beat and a whole note chord of B-flat major (Bb, D, F) on the second beat. The Bass part has a whole note chord of B-flat major (Bb, D, F) on the first beat and a whole note chord of B-flat major (Bb, D, F) on the second beat. The score is divided into two systems, with measures 46 and 47 in the first system and measures 48 and 49 in the second system.



The fourth area is in the D section. The ostinatos in harps 1 and 2 from m.147 to m.154 do not exist in the 2-piano version. (See Example 136.)

### Example 136

#### 2-Piano Version

The musical score for Example 136, 2-Piano Version, covers measures 147 to 154. It is arranged in a system with five staves:

- Staff 1 (Top):** Labeled "Str." (Strings). It features a long, sustained chordal texture with a fermata over the final measure.
- Staff 2:** Labeled "Fl." (Flute). It contains a melodic line with eighth-note patterns and slurs.
- Staff 3:** Labeled "Harps." (Harp). It features a complex, rhythmic pattern of chords and single notes.
- Staff 4:** Labeled "Cl." (Clarinet). It contains a melodic line with eighth-note patterns and slurs.
- Staff 5 (Bottom):** This staff contains a long, sustained chordal texture, similar to the strings, with a fermata over the final measure.

Measures 147 and 148 are marked with a "147" above the staff. The score is written in a 2/2 time signature.

# Orchestral Version

This page of the orchestral score, numbered 145, covers measures 147 through 150. The score is arranged in a standard orchestral layout with the following parts and staves:

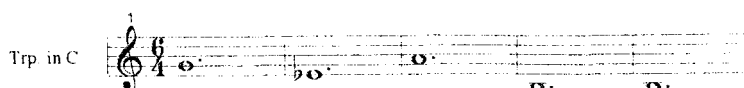
- Fl.** (Flute): Treble clef, 3/4 time signature. Measures 147-150 feature a melodic line with eighth-note patterns and slurs.
- Bass Fl. in G**: Bass clef, 3/4 time signature. Provides a harmonic accompaniment to the flute.
- Cl. in Bb** (Clarinet in B-flat): Treble clef, 3/4 time signature. Plays sustained chords.
- Bcl. in Bb** (Bass Clarinet in B-flat): Bass clef, 3/4 time signature. Plays sustained chords.
- Dbn.** (Double Bass): Bass clef, 3/4 time signature. Features a rhythmic pattern of eighth notes.
- Hp. I.** (Harp I): Treble clef, 3/4 time signature. Features a melodic line with slurs.
- Hp. II.** (Harp II): Bass clef, 3/4 time signature. Provides a harmonic accompaniment to the harp I.
- Org. Ped.** (Organ Pedal): Bass clef, 3/4 time signature. Plays sustained chords.
- Vns.** (Violins): Treble clef, 3/4 time signature. Plays sustained chords.
- Vas.** (Violas): Bass clef, 3/4 time signature. Includes the instruction **div.** (divisi) at the beginning of measure 147. Plays sustained chords.
- Vc.** (Violoncello): Bass clef, 3/4 time signature. Plays sustained chords.
- Db.** (Double Bass): Bass clef, 3/4 time signature. Plays sustained chords.

## URANUS, THE MAGICIAN

### Form Analysis

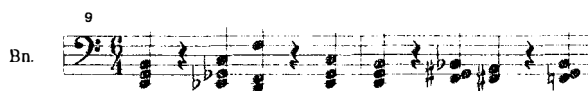
There are seven patterns that are recognizable in Uranus. The first pattern is a 4-note motive, G-E<sup>b</sup>-A-B. This 4-note motive first appears in trumpets, tenor trombones and bass trombone from m.1 to m.5. (See Example 137.)

#### Example 137



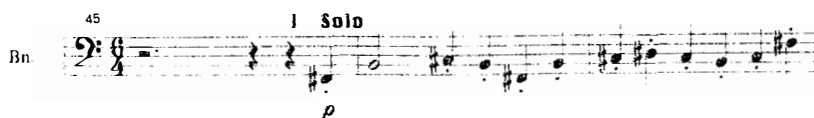
The second pattern is the first theme of Uranus. This theme is only two measures long. The theme first appears in bassoons in mm.9-10. (See Example 138.) This short theme continues from m.11 to m.33 and does not reappear again anywhere else in Uranus.

#### Example 138



The third pattern is the second theme of Uranus. This second theme first appears in the solo bassoon and cellos from the pickup note to m.46 to m.47. (See Example 139.) This second theme continues from the pickup note to m.48 to m.69. This theme does not reoccur anywhere else in the Uranus.

### Example 139



The fourth pattern is the third theme of Uranus. The third theme appears for the first time in horns and strings from m.72 to m.83. (See Example 140.) This theme continues to appear from m.84 to m.97 and does not reappear again anywhere in Uranus.

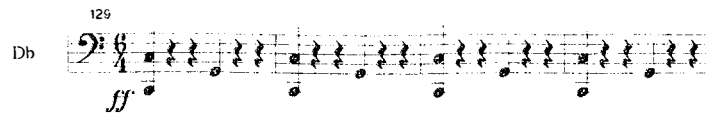
### Example 140



The fifth pattern is a 2-note basso ostinato. (See Example 141.) This is the most prominent ostinato in Uranus. The basso ostinato appears in two areas from m.129 to m.181 and from m.193 to m.221. Holst uses the notes C and G from m.129 to m.158 except in mm.144-145, 147, 155-156 and 158-159 where he uses C and G#. Holst changes notes of the ostinato to E and B from m.160 to m.170. He changes notes more frequent in mm.171-181 from D-A to C#-F#, C-F# and B-F. Holst returns to notes C-G from m.193 to m.209. He changes notes briefly to C-G# in mm.210-214 and continues with notes C-G from m.215 to m.221.



### Example 141



The sixth pattern is the fourth theme in Uranus. The fourth theme appears for the first time in tenor tuba and bass tuba from m.138 to m.144, then continues in trumpets from m.144 to m.148. (See Example 142.) The fourth theme appears from m.138 to m.159 and from m.193 to m.212.

### Example 142



The seventh pattern is the fifth theme in Uranus. This theme appears for the first time in trumpets from m.160 to m.165. (See Example 143.) The fifth theme reappears only three more times in mm.167-172, and in shorter

versions in mm.175-178 and in mm.179-181. This fifth theme has a very close resemblance to the first theme.

### Example 143

The author divides Uranus into eight sections. (See Example 144.)

Uranus has the most unusual form in *The Planets*, A-B-C-A-A'-A'-A.

### Example 144

	A1	B	C	A2	A'3
1	→ 45	46 → 71	72 → 97	98 → 128	129 → 159
	(45m.)	(26m.)	(26m.)	(31m.)	(31m.)
	A4	A'5	A6		
160	→ 192	193 → 221	222 → 250		
	(33m.)	(29m.)	(29m.)		

The reason the author assigns these last five as A sections is because the 4-note motive from the first A section is used extensively in all of these sections. The author assigns two of these five sections the A' because these two use the fourth theme of Uranus that does not appear in any other sections.

### Melodic Analysis

The first pattern which is a 4-note motive at the beginning is the most essential material of Uranus. Holst creates many varieties from these four

simple notes. The author will address only the more obvious cases. Example 145a shows the 4-note motive in its original form at the beginning of Uranus. Example 145b shows the 4-note motive in which Holst has lengthened the second note and shortened the fourth note. It is also interesting that Holst assigns this motive to timpani in several places. Example 145c shows the same motive which is now reduced into three notes.

### Example 145

a).

Trp. in C

b).

108  
Timp  
mf

c).

128  
Vc

Holst extends this 4-note motive into a 7-note melodic ostinato by repeating the first three notes. He also has shortened the first two notes at the beginning and added a quarter rest between the third and the fourth notes. This 7-note ostinato appears from m.129 to m.159 in bass oboe, bass clarinet, bassoons, timpani, harp 2 and violas. (See Example 146.)

### Example 146

129  
Bass Ob  
ff

Holst has a xylophone play a series of notes in mm.26-28, 30-32 and 34-42. (See Example 147.) At first, the author notices that there are two sets of identical imitation. The first set is between mm.26-27 and mm.30-31. The second set is between mm.34-37 and mm.38-41. After more consideration, the author believes they are sequential passages of the 4-note ostinato or the first pattern.

### Example 147

The image shows two staves of musical notation for the xylophone part. The first staff is labeled '26' and the second staff is labeled '34'. Both staves are in 4/4 time and show a 4-note ostinato pattern. The notes are G4, A4, B4, and C5. The first staff shows the pattern in measures 26-27 and 30-31. The second staff shows the pattern in measures 34-37 and 38-41.

Using scale is one of Holst favorite compositional devices. The scale is used more frequently here in Uranus than any other movements. Holst also writes doubling to most of scale patterns in Uranus. The scale first appears in mm.19-20. (See Example 148.) There are two scales at the same time. One scale is ascending from the note E to the note F# and is performed by flutes, oboes, English horn, clarinets, trumpets, violins and violas. The other scale is descending from the note G to the note E and is performed by bass oboe, bass clarinet, double bassoon, cellos and double basses. Both scales appear to be G-major scales.

### Example 148

There are six appearances of scales from m.64 to m.72. All scales may start and end with different notes but they are all D-major scales. The second scale appears in mm.64-65. (See Example 149.) This scale descends from the note F# to the note E. The scale is performed by piccolos, flutes, oboes, English horn, clarinets, violins and violas.

### Example 149

The third scale is in mm.66-67. This scale is descending from the note A to the note G. (See Example 150.) The scale is performed by piccolos, flutes, oboes, English horn, violins and violas.

### Example 150

The fourth scale is ascending using 5 notes in m.67. This scale starts with the note F# and ends with the note C#. (See Example 151.) Holst does not write harmonic doubling for this scale. The scale is performed in unison and octave by bass clarinet, bassoons, double bassoon, cellos and double basses.

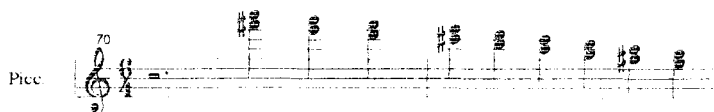
#### Example 151



The fifth scale is in mm.68-69. This scale starts and ends on the same notes as the second scale. The only difference is that the fifth scale is one octave higher and is performed by piccolos, flutes, oboes, English horn, clarinets and trumpets.

The sixth scale is in mm.70-71. This scale is descending from the note A to the note G. (See Example 152.) The scale is performed by piccolos, flutes, oboes, English horn, clarinets and trumpets.

#### Example 152



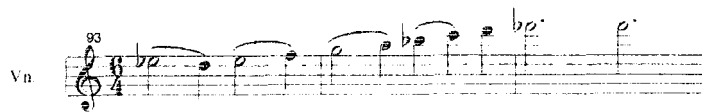
The seventh scale is an ascending using 6 notes in mm.71-72. This scale starts with the note A and ends with the note F#. (See Example 153.) The scale does not have a harmonic doubling and is performed in unison by horns, violins, violas and cellos.

### Example 153



The eighth scale is in mm.93-95. This appears to be a B<sup>b</sup>-major scale which starts on the note D and ascends to the note E<sup>b</sup>. (See Example 154.) This scale is performed by flutes, oboes, English horn, clarinets, horns, violins, violas and cellos. Holst wrote harmonic doubling of the scale.

### Example 154



The ninth scale is in mm.96-98 and is an identical imitation of the eighth scale except it is one octave higher. (See Example 155.) The scale is performed by piccolos, flutes, oboes, clarinets, horns, violins, violas and cellos and also has harmonic doubling.

### Example 155



### Rhythmic Analysis

Holst uses unusual meters in Uranus. He not only uses the unusual 6/4 meter in most areas, he also uses an even more unusual 9/4 meter in some

areas. Additionally, 6/4 and 4/4 meters are used at the same time from m.231 to m.238. Uranus ends with a common meter when he changes to 4/4 meter from m.239 to the end in m.250. In the 2-piano version, Holst uses 6/4 meter from m.231 to m.234 and changes to 4/4 meter from m.235 to the end of Uranus in m.250.

Holst has two ways of subdividing the beat of this unusual 6/4 meter. He subdivides into 2+2+2 from the beginning of Uranus to m.71. The subdivision changes to 3+3 from m.72 to m.121. Holst combines these two ways to subdivide the 6/4 meter and creates the hemiola in mm.122-125. (See Example 156.) The instruments that play the 2+2+2 subdivision are bass tuba and timpani 1 in m.122, piccolos in m.123, flutes in m.124 and clarinets in m.125. The rest of the orchestra plays 3+3 subdivision. The same hemiola pattern appears again in m.164-166.

Example 156

The image displays a musical score for Example 156, illustrating a hemiola pattern in 6/4 meter. The score is arranged in a system with ten staves, each representing a different instrument or section:

- Picc.** (Piccolo): Measures 122-125, playing a melodic line with a *f* dynamic.
- Fl.** (Flute): Measures 122-125, playing a melodic line with a *f* dynamic.
- Bass, Ob.** (Bass Oboe): Measures 122-125, playing a melodic line with a *cresc.* dynamic.
- Cl. in Bb.** (Clarinet in B-flat): Measures 122-125, playing a melodic line with a *f* dynamic.
- Bcl. in Bb.** (Bass Clarinet in B-flat): Measures 122-125, playing a melodic line with a *cresc.* dynamic.
- Bu.** (Bassoon): Measures 122-125, playing a melodic line with a *cresc.* dynamic.
- Trbn.** (Trumpet): Measures 122-125, playing a melodic line with a *cresc.* dynamic.
- Bass Tuba**: Measures 122-125, playing a melodic line with a *p* dynamic.
- Imp.** (Timpani): Measures 122-125, playing a melodic line with a *p* dynamic.

The score shows the hemiola pattern (3+3 subdivision) in 6/4 meter, with various dynamics and articulations. The measures are numbered 122, 123, 124, and 125.



Holst also uses the 'cross-rhythmic hemiola' in Uranus from m.231 to m.238. (See Example 157.) This is the area where two meters are used at the same time. Holst uses 6/4 meter in bass oboe, bass clarinet, bassoons and double bassoon while the rest of the orchestra is in 4/4 meter. He also changes the solo timpani to 6/4 meter from m.236 to m.238.

Example 157

The musical score for Example 157 shows the orchestration for measures 231 to 238. The score is divided into two systems. The first system includes Bass Oboe, Bass Clarinet in Bb, Bassoon, Double Bassoon, Tenor and Bass Tubas, and Horn I. The second system includes Violins, Violas, Cellos, and Double Basses. The score illustrates the change in meter from 4/4 to 6/4 for the bass instruments and timpani. The bass instruments (Bass Oboe, Bass Clarinet, Bassoon, and Double Bassoon) are in 6/4 meter throughout the passage. The Tenor and Bass Tubas are in 4/4 meter. The Timpani part is in 4/4 meter until measure 236, where it changes to 6/4 meter. The Violins, Violas, Cellos, and Double Basses are in 4/4 meter throughout the passage. The score includes dynamic markings such as *pp*, *p*, *f*, and *cresc.*, as well as articulation markings like *pp*, *f*, and *Solo*. The score also includes a 3-measure rest for the Bassoon and a 4-measure rest for the Timpani.

A clear example of rhythmic diminution is from the beginning of Uranus. Holst starts Uranus with the 4-note motive. After it first appears, this 4-note motive repeats itself twice immediately. In each repetition, the motive returns with a shorter rhythmic value than the previous one. Holst appears to be reducing the rhythmic value at a 4:1 ratio. The motive appears for a second time in the tenor tuba and the bass tuba from m.5 to m.7. The motive appears a third time in timpani in m.7. (See Example 158.) It is interesting that Holst has timpani play the important motive.

Example 158

The musical score for Example 158 is written in 4/4 time and consists of seven staves. The first four staves (Trp. in C, Ten. Trb., Bass Trb., and Ten. Tub. in Bb) play a 4-note motive (G4, A4, B4, C5) with a forte (*ff*) dynamic. The first appearance is in measure 5, where the notes are half notes. The second appearance is in measure 7, where the notes are quarter notes. The last two staves (Bass Tub. and Timp. I) play the same 4-note motive in measure 7, but with a shorter rhythmic value: eighth notes. The timpani part includes a 4-measure rest followed by the eighth-note motive, also marked *ff*. The score illustrates rhythmic diminution by reducing the rhythmic value of the motive from half notes to quarter notes, and then to eighth notes.

Holst uses rhythmic diminution for the second time in mm.236-238. (See Example 159.) There is a small set of 4-note ostinato which is derived from the 4-note motive at the beginning of Uranus. Holst not only turns the 4-note motive into ostinato, he also creates rhythmic diminution from it. Holst makes

this rhythmic diminution even more interesting because it is being performed by the solo timpani. Holst uses five notes per measure in m.236. He increases the number of notes to seven in m.237 and to twelve in m.238.

### Example 159

The image shows a musical score for Timpani (Timp) in 4/4 time, measures 236-238. The score is marked 'Solo' and begins with a dynamic marking of *f* (forte). The notation shows a sequence of notes that increase in density and complexity over the three measures. In measure 236, there are five notes. In measure 237, there are seven notes. In measure 238, there are twelve notes. A 'cresc.' (crescendo) marking is placed below the staff between measures 237 and 238. A bracket with the number '4' is positioned above the staff in measure 238, indicating a four-measure phrase.

Holst accelerates the rhythm by decreasing the note duration in mm.21-25. (See Example 160.) He starts with four notes (and two quarter rests) per measure in mm.21-22. He increases to six notes in m.23, seven notes in m.24, and eight notes in m.25.



## Harmonic Analysis

Holst does not use a key signature in Uranus except in the harp 2 from m.46 to m.62. A seven flat key signature is used from m.46 to m.56 then the key signature changes to five flats from m.57 to m.62. However, in the 2-piano version Holst uses a five sharp key signature from m.46 to m.54.

The first A section of Uranus is in the E-minor tonality. There is not enough evidence to identify the tonality of the second A section. Both of the A' sections (A'3 and A'5) appear to be switching back and forth between two tonalities, the C-minor and the E-major. The first half of the fourth A section appears to be in the E-minor tonality while the second half appears to be in E-major. The sixth or last A section uses mostly the F13 chord but ends with only two notes, E and B. Even though Holst does not include the third of the chord in the last measure of Uranus, the author believes this is an E-minor chord. Because Holst starts Uranus with an E-minor chord, he should end with the same Em chord. Holst ends the movement with this plagal cadence as he did in Mars.

Example 161 displays the chords used in all six of the A sections. There are 21 groups of chordal repetitions which the author labels as a, b, c, d, etc., through u.









The B section where Holst uses a key signature in harp starts with the B-major tonality. He changes to D<sup>b</sup>-major in the middle of this section then to D-major in the last part of the section.

Example 162 displays the chords used in the B section. There are four groups of chordal repetitions which the author continues the label from the previous example as v, w, x and y.

### Example 162

Section B - chord analysis mm.46-71

v		v	
B G#m11 B	G#m11 B9 G#m11	B G#m11 B	G#m11 B9 G#m11
46			
v'			
B G#m11 B	G#m11 B9 G+11 G+7	G+9 G+ G+9	C Am11 C
52			
w		x	
x		x'	
x		w	
A <sup>b+9</sup> A <sup>b+</sup> A <sup>b+9</sup>	D <sup>b</sup> B <sup>b</sup> m11 D <sup>b</sup>	B <sup>b</sup> m11 D <sup>b9</sup> B <sup>b</sup> m11	D <sup>b</sup> B <sup>b</sup> m11 D <sup>b7</sup>
57			
x		y	
D <sup>b</sup> B <sup>b</sup> m11 D <sup>b7</sup>	Em11 A9 Em11 A9	Bm A G	F#m7 Em9 D9 A7 Bm A7
62			
y'			
A GM7 F#m9 Em11 Bm7 A7	Bm A G	F#m7 Em9 D9 A7 Bm A7	D11 A7 GM7
67			
y'			
A G9 F#m11 C#°7 D C#°			
71			

Example 163 displays the chords used in the C section from m.72 to m.97. There is a group of chordal repetition which the author labels as z.

### Example 163

Section C - chord analysis mm.72-97

D	Q	Q	D	Q	D	Q	Q	B	Cm	Cm	B	F#m	F#m	D#°	B	F7	Dm		
z																			
F9	Cm	F7	Cm11	F7	A°	F7	Dm	F9	Cm	F7	Cm11	F7	Bb11	B	F7	A°	A°11	F7	Dm9
z'																			
F9	A°7	F	Cm11	F7	Bb11														

Uranus has five identical interval patterns. The first interval pattern is between overlapping groups of chords in the first A section from m.24 to m.25. (See Example 164.) These four sets of chords are a major second apart.

### Example 164

Chord and interval analysis mm.24-25

Em	C°7	Dm	F#m	D°7	Em	G#m	E°7	F#m	Bb <sup>b</sup> m	F#°7	G#m	Cm	G#°7	Bb <sup>b</sup> m
-4 +2		++ -4		+2 -4		+2 ++		-4 +2		++ -4		+2		

The second interval pattern is also in the first A section between chords from m.27 to m.29 and from m.31 to m.33. (See Example 165.) These two sets of chords are a minor third apart.

### Example 165

Chord and interval analysis mm.27-29

+2 +1 -1 +1 -1 +5  
| C B Am7 | B7 CM7 B°9 CM7 | B7 Em11 EM7 Em11 |

Chord and interval analysis mm.31-33

+2 +1 -1 +1 -1 +5  
| C G+7 C | D7 E<sup>b</sup>M D°9 E<sup>b</sup>M7 | D7 Gm11 Bm Gm11 |

The third interval pattern is between chords in the first A section in m.38 and chords in the fourth A section from m.182 to m.183. (See Example 166.) These two sets of chords are a perfect fifth apart.

### Example 166

Chord and interval analysis mm.38

-3 0 +3  
| Am7 F#° F#°9 Am7 |

Chord and interval analysis mm.182-183

-3 0 +3  
| E C#m | C#m E |

The fourth interval pattern is in the B section among chords in mm.46-47, 55-56 and 58-59. (See Example 167.) These three sets of chords are a minor second apart.

### Example 167

Chord and interval analysis mm.46-47

$$\begin{array}{cccc} -3 & +3 & -3 & +3 \\ | B G\#m11 B | G\#m11 B9 G\#m11 | \end{array}$$

Chord and interval analysis mm.55-56

$$\begin{array}{cccc} -3 & +3 & -3 & +3 \\ | C Am11 C | Am11 C9 A^b+11 A^b+9 | \end{array}$$

Chord and interval analysis mm.58-59

$$\begin{array}{cccc} -3 & +3 & -3 & +3 \\ | D^b B^b m11 D^b | B^b m11 D^b9 B^b m11 | \end{array}$$

The fifth interval pattern is in the B section between chords from m.53 to m.56 and from m.56 to m.59. (See Example 168.) These two sets of chords are a minor second apart.

### Example 168

Chord and interval analysis mm.53-56

$$\begin{array}{cccccccccccc} & & 0 & 0 & 0 & 0 & +5 & -3 & +3 & -3 & +3 \\ | G\#m11 B9 G+11 G+7 | G+9 G+ G+9 | C Am11 C | Am11 C9 A^b+11 A^b+9 | \end{array}$$

Chord and interval analysis mm.56-59

$$\begin{array}{cccccccccccc} & & 0 & 0 & 0 & 0 & +5 & -3 & +3 & -3 & +3 \\ | Am11 C9 A^b+11 A^b+9 | A^b+9 A^b+ A^b+9 | D^b B^b m11 D^b | B^b m11 D^b9 B^b m11 | \end{array}$$

There is a harmonic imitation in trumpet between mm.26-27 and mm.30-31. (See Example 169.) This harmonic imitation is written in four parts, in homophonic style. Notice that each voice of this harmonic imitation contains a different ostinato pattern. There is a 2-note ostinato, F#-G, in trumpet 1

where each note is separated by a quarter rest. There is a 4-note ostinato, B-B-C-A, in trumpet 2. The ostinato in trumpet 3 is similar to the ostinato in trumpet 1 except trumpet 3 plays D# and E. Trumpet 4 plays a 4-note ostinato, B-A-C-G, in which the author believes is derived from the 4-note motive at the beginning of Uranus.

### Example 169

The image shows a musical score for two trumpets in C, labeled 'Trp. in C'. The score consists of two staves, both in 4/4 time. The first staff begins at measure 26 with a treble clef and a key signature of one sharp (F#). The second staff also begins at measure 26 with a bass clef and a key signature of one sharp. Both staves contain rhythmic patterns of quarter notes and quarter rests, with some notes beamed together. The notation includes various accidentals and dynamics markings.

Holst uses harmonic ostinato in Uranus. The harmonic ostinato appears in harp 2 from m.46 to m.53. The ostinato switches briefly to harp 1 from m.53 to m.56 and returns to harp 2 from m.56 to m.62. The harmonic ostinato ends in m.63 by harp 1. (See Example 170.)

Example 170

The image displays a musical score for two harps, labeled Hp. I and Hp. II, across three systems of music. The first system covers measures 46 to 51, the second system covers measures 52 to 57, and the third system covers measures 58 to 63. Each system consists of two staves for each harp, with Hp. I on the left and Hp. II on the right. The notation includes treble and bass clefs, a key signature of one flat (B-flat), and a 4/4 time signature. The music features a complex rhythmic pattern with many sixteenth and thirty-second notes, often beamed together. There are several rests in the Hp. I part, particularly in the first system. The Hp. II part is more active, with dense passages of notes. The score is presented in a standard musical notation style with a clear layout of staves and measures.

Enharmonic writing is used in Uranus from m.46 to m.53. A seven flat key signature implies the C<sup>b</sup>-major tonality in harp 2. No key signature is used by the rest of the orchestra. However, accidentals are used to alter tonality into the B-major which is the enharmonic of the C<sup>b</sup>-major.

#### Other Aspects

Holst sometimes likes to write his music in contrary motion. The first time he uses contrary writing in Uranus is from m.19 to m.20. (See Example 171.) This writing in contrary motion is the result of Holst using two scale patterns at the same time. One of these scales is ascending and the other is descending. Additionally, there is harmonic doubling of these two scales.

# Example 171

Musical score for Example 171, starting at measure 19. The score is written for a full orchestra and includes the following instruments:

- Fl.
- Ob.
- E.H.
- Bass Ob.
- Cl. in Bb
- Bcl. in Bb
- Bn.
- Dbn.
- Trp. in C (two parts)
- Vns. (Violins)
- Vas. (Violas)
- Vc. (Violoncello)
- Dh. (Double Bass)

Key features of the score include:

- Measure 19 is marked with *stacc.* (staccato) and *cresc.* (crescendo).
- The Trp. in C part includes dynamic markings *stacc.*, *pp*, and *cresc.*.
- The Dbn. part includes dynamic markings *cresc.* and *p*.
- The Vc. part includes dynamic markings *p* and *cresc.*.



The second area of contrary motion is in m.67. (See Example 172.) This contrary motion results from two scales at the same time.

### Example 172

The musical score for Example 172 spans measures 66 and 67. The score is written for a full orchestra and includes the following parts:

- Picc.
- Fl.
- Ob.
- E.H.
- Bass Ob.
- Cl. in Bb
- Bcl. in Bb
- Bn.
- Dbn.
- Ten. Tub. in Bb
- Bass Tub.
- Vns.
- Vas.
- Vc.
- Db.

Measure 66 shows the beginning of the passage. Measure 67 features a key change to B-flat major (one sharp) and a 4/4 time signature. The Tenor and Bass Tubas have a *Solo* marking in measure 67, with the Bass Tuba also marked *f*. The Violins have a *pizz.* (pizzicato) marking in measure 67. The Double Basses have a *f* marking in measure 67. The score illustrates the concept of contrary motion through two simultaneous scales in measure 67.

The third area of contrary motion appears in m.71. (See Example 173.)

Example 173

70  
Picc. *cresc.*

70  
Fl. *cresc.*

70  
Ob. *cresc.*

70  
E.H. *cresc.*

70  
Cl in Bb *cresc.*

70  
Hrn. in F a 2 pesante  
*ff*

70  
Hrn. in F a 2 pesante  
*ff*

70  
Hrn. in F a 2 pesante  
*ff*

70  
Trp. in C III.

70  
Ten. Tub. in Bb

70  
Bass Tub *cresc.*

70  
Vns. arco pesante  
*ff*

70  
Vns. arco pesante  
*ff*

70  
Vas. arco pesante  
*ff*

70  
Vc. arco pesante  
*ff*

There are several inconsistencies between the 2-piano version and the orchestral version. First, the second theme is performed by the tenor tuba and the bass tuba from the pickup note to m.68 in the orchestral version. This pickup note, A, is missing in the 2-piano version. (See Example 174.) Holst writes a scale pattern in second piano in m.67. He omits the first note of the second theme and continues the scale in m.67 into the second and third notes of the theme.

Example 174

2-Piano Version

The image shows a musical score for the 2-piano version of Example 174, covering measures 67 and 68. The score is written for four staves: two treble clefs (top two) and two bass clefs (bottom two). The key signature is one sharp (F#) and the time signature is 4/4. Measure 67 features a scale pattern in the second piano part (the lower treble staff). Measure 68 shows the continuation of the scale in the second piano part and the beginning of the second theme in the tuba parts (the two bass staves). The tuba parts are marked with a forte (*f*) dynamic and the instruction "Tubas." The pickup note (A) mentioned in the text is present in the tuba parts but missing in the 2-piano version.



Second, there are two notes that do not exist in the 2-piano version in mm.91-94 and mm.96-97. (See Example 175.) The two notes, F and A, can clearly be seen in trumpets 3 and 4.

### Example 175

#### 2-Piano Version

The image shows a musical score for a 2-piano version, labeled 'Example 175'. The score is for measures 91 through 97. It consists of four staves: two for the right hand (treble clef) and two for the left hand (bass clef). The key signature has one flat (B-flat major or D minor), and the time signature is 4/4. The notation includes various chords, arpeggios, and melodic lines. The first two staves (right hand) feature complex chordal textures with many notes, including some accidentals. The last two staves (left hand) feature a more rhythmic accompaniment with eighth and sixteenth notes, often beamed together. The measure numbers 91, 92, 93, 94, 96, and 97 are clearly marked at the beginning of their respective staves.



Third, the dotted whole note B in bass tuba from m.113 to m.116 does not exist in the 2-piano version. (See Example 176.)

### Example 176

#### 2-Piano Version

Musical score for the 2-Piano Version, measures 113-116. The score is in 6/4 time. The upper two staves (treble clef) are for the right hand, and the lower two staves (bass clef) are for the left hand. The right hand part is mostly rests. The left hand part features a dotted whole note B in the bass tuba part (m. 113-116) and a piano (p) dynamic marking. The score includes markings for 'Fag. Timp.' and 'C Fag. p'.

#### Orchestral Version

Musical score for the Orchestral Version, measures 113-116. The score is in 6/4 time. The instruments are Bn (Bassoon), Dbn (Double Bassoon), Bass Tuh (Bass Tuba), and Timp I (Timpani I). The Bn and Dbn parts are marked 'Solo' and 'p'. The Bass Tuh part has a dotted whole note B in m. 113-116. The Timp I part has a piano (p) dynamic marking. The score includes markings for 'p', 'Solo', and '1 1 1 a 2'.

Fourth, the series of eighth notes in woodwinds from m.164 to m.166 appear differently in the 2-piano version. (See Example 177.) Also the dotted whole notes in trumpets from m.164 to m.165 do not exist in the 2-piano version.

### Example 177

#### 2-Piano Version

The image displays a musical score for measures 164 to 166, labeled as the "2-Piano Version". The score is arranged in four staves. The top staff is for Piccolo Flute (Picc. Fl.), the second staff is for Clarinet (Cl.), and the third staff is for Oboe Clarinet (Ob. Cl.). The bottom two staves are for Timpani (Timp.), with the first of these staves showing a rhythmic pattern and the second showing a dotted half note. The score includes dynamic markings such as *f* and *8<sup>va</sup>*, and articulation marks like slurs and accents. The woodwind parts feature eighth notes and slurs, while the timpani part features a rhythmic pattern of eighth notes and a dotted half note.





Fifth, there are three differences between the orchestral version and the 2-piano version in mm.222-231. (See Example 178.) First, two whole notes, F and A, do not exist in the 2-piano version. Second, the harmonic notes in harp 1 are written in shorter note values in the 2-piano version in mm.225-227 and mm.229-230. Third, the whole notes in strings do not exist in m.231 of the 2-piano version.

Example 178

2-Piano Version

Musical score for the 2-piano version, measures 222-231, marked **Lento**. The score is in 4/4 time. It features a piano (p) and strings (Str.) part, and a harp part. The piano part consists of sustained chords in the right hand and a melodic line in the left hand. The harp part provides harmonic accompaniment with arpeggiated figures. Dynamics include *pp* and *ppp*. The score ends with a *Red.* (Reduction) mark.

Musical score for the 2-piano version, measures 227-231, marked **Allegro**. The score is in 4/4 time. It features a piano (p) and strings (Str.) part, and a harp part. The piano part shows a change in dynamics from *p* to *pp* and includes markings for *Dim.* (diminuendo) and *Stacc.* (staccato). The harp part continues with arpeggiated figures. The score ends with a *pp* *fag.* (fagotto) marking and a *Red.* (Reduction) mark.

Orchestral Version

**lento.** **Allegro**

222 a 3

Bn. *pp*

Hp. I.

Hp. II. *pp*

Vns. 2 desks div. **Tutti div. non div.**

Vas. 2 desks div. **Tutti div. non div.**

Vc. **Tutti**

Db. **1 desk**

*pp* *dim.*

## NEPTUNE, THE MYSTIC

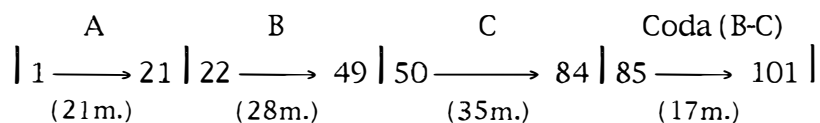
### Form Analysis

The author considers Neptune to be the most unusual of all movements in *The Planets*. First with one exception Holst does not use melody or any compositional material extensive enough to be called a theme or pattern as the author recognizes in the other six movements. The exception is the use of a 2-note ostinato from m.51 to m.84 and again from m.91 to m.95.

The second unusual aspect about Neptune is this is the only movement where Holst uses a chorus in *The Planets*.

The third unusual aspect is the musical form of Neptune. The author has divided Neptune into four sections; A, B, C and Coda. (See Example 179.) The Coda section contains materials derived from the B and C sections which is the reason the author uses “Coda (B-C)” in the example. The result is the A-B-C-Coda form. The author discovers that music in previous movements can be divided into at least six or more sections. At least two of these sections are the repeated sections such as A1-A2 or B1-B2. In Neptune, there are only four sections and none are repeated.

### Example 179



The fourth unusual aspect of Neptune is the ending. Holst indicates that the last measure of Neptune is to repeat and fade until the sound is lost in the distance. Holst prefers that the singers walk off the stage as they are singing and continue to walk until the audience can no longer hear them.

## Melodic Analysis

Holst uses only three melodies in Neptune. The author does not consider them as themes because they are not used enough to create the foundation of composition.

The first melody appears in flutes and bass flute in mm.1-3 and continues in piccolo and oboes in mm.3-4. (See Example 180.) The first melody reappears two more times in mm.5-8 and mm.14-15. In mm.5-8, the first melody repeats with an almost identical imitation except for the difference in the harmonic doubling between m.4 and m.8 in the oboe. In mm.14-15, the melody repeats with an identical imitation with the exception that only two of the four measures of the melody are played in flute 1 and bass flute. The melody only appears in the A section. This melody does not repeat anywhere else in Neptune.

Example 180

The musical score for Example 180 is written for four instruments: Piccolo, Flute 1, Bass Flute in G, and Oboe. The tempo is marked 'Andante (3 beats followed by 2)'. The key signature has one sharp (F#) and the time signature is 5/4. The melody is marked 'pp' (pianissimo). The score shows the first appearance of the melody in measures 1-3, where it is played by Flute 1 and Bass Flute in G. In measures 3-4, the melody is played by Piccolo and Oboe. The melody consists of a sequence of notes: G4, A4, B4, C5, D5, E5, F#5, G5, F#5, E5, D5, C5, B4, A4, G4. The melody is repeated in measures 5-8 and 14-15.

The second melody in Neptune appears for the first time in flutes and bass flute from m.9 to m.11. (See Example 181.) The second melody reappears a second and final time in oboe and English horn in mm.12-13. This second appearance is one octave higher than the first appearance.

### Example 181

The image shows a musical score for four woodwind instruments: Flute (Fl.), Bass Flute in G (Bass Fl. in G), Oboe (Ob.), and English Horn (E.H.). The score is in 5/4 time and consists of four measures. The Flute and Bass Flute parts are marked with a '9' above the staff, indicating a specific fingering or breath mark. The Oboe and English Horn parts are marked with a '9' above the staff. The score features arpeggiated figures and sustaining chords. The English Horn part is marked with *pp* (pianissimo) at the end of the fourth measure.

Holst does not use any melody from m.16 to m.49. Instead, he uses a series of arpeggiated figures together with sustaining chords. The third melody is also the last melody in Neptune. The only appearance of this melody is in clarinet 1 from m.58 to m.65. Violins 1 answer this melody from m.64 to m.70 by using material borrowed from the first two measures of the third melody. Holst also writes harmonic doubling to this answering melody in flutes from m.65 to m.69 and in bass flute from m.68 to m.69. (See Example 182.)

### Example 182

The image displays a musical score for Example 182, consisting of two systems of staves. The first system includes staves for Flute (Fl.), Bass Flute in G (Bass Fl. in G), Clarinet in A (Cl. in A), and Violin (Vn.). The Flute staff is mostly silent, with a few notes at the end. The Bass Flute and Clarinet staves play a rhythmic pattern of eighth notes. The Violin staff has a melodic line with the instruction *dolce* and *senza sordini*. The second system shows a piano accompaniment with four staves (treble and bass clefs) and a violin part. The piano part features a complex texture with many sixteenth notes and chords. The violin part continues with a melodic line.

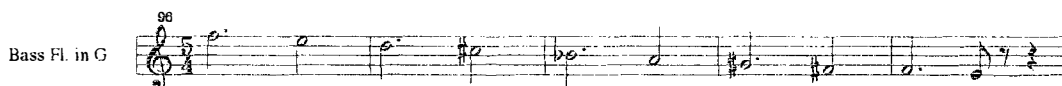
Holst uses a 2-note melodic ostinato, D#-C#, from m.51 to m.84. This 2-note ostinato appears of the first time in violas in m.51. The 2-note ostinato continues in bass oboe from m.52 to m.56, and in bass flute and violas from m.57 to m.64. (See Example 183.) The ostinato moves to English horn and the upper voice of the bassoons (Bn. 1) from m.65 to m.69 and changes to the lower voice of flutes (Fl. 2) and harp 1 in mm.70-84 and mm.91-95.

### Example 183



Holst uses scale only once near the end of Neptune in the bass flute from m.95 to m.100. (See Example 184.) This is an unusual 9-note scale. This scale starts on the note F and descends to the note E. The first six notes, F-E-D-C#-B<sup>b</sup>-A, appear to be in the D melodic minor scale.

### Example 184



### Rhythmic Analysis

Holst returns to the use of the 5/4 meter like that used in Mars. However, there is a little difference in Neptune, Holst indicates that the subdivision of 5/4 meter in Neptune should be 3 beats followed by 2 beats. This subdivision indication is not made in Mars.

Holst accelerates the rhythm by reducing the note duration in harp 1 in mm.35-36. (See Example 185.) Holst increases notes from six per beat on the first beat to seven on the second beat and eight on the third beat of m.35. This process in harp 1 in m.35 is repeated in m.36.



## Example 185

### Harmonic Analysis

Neptune is the only movement that can truly be called a bitonality movement. There are areas where two chords that have no diatonic relationship between each other appear simultaneous.

Example 186 displays the chords used in the A section. There are four groups of chordal repetitions which the author labels as a, b, c and d.

## Example 186

### Section A - chord analysis mm.1-21

	a	a			
Em G#m11	Em G#m11	G#m G#m	Am F Am G#m	G#m G#m	G#m G#m   G#m G#m
1			Am   Am Am Am	Em G#m11   Em G#m11	C
				a	a
C C <sup>7</sup>	C <sup>7</sup> C <sup>7</sup> C <sup>7</sup> C <sup>7</sup> C <sup>7</sup> C <sup>7</sup>	C <sup>7</sup> C <sup>7</sup> C <sup>7</sup>	C <sup>7</sup>		
D#m	D#m D#m D#m D#m D#m D#m	D#m D#m D#m	D#m		
	Fm E <sup>b</sup> m Fm G <sup>b</sup> E <sup>b</sup> m Fm	E <sup>b</sup> m Fm G <sup>b</sup>	A <sup>b</sup>		
g	b			c	



Example 188 displays the chords used in the C section. There are nine groups of chordal repetitions which the author labels as in the two previous examples as i, j, k, l, m, n, o, p and q.

### Example 188

Section C - chord analysis mm.50-84

	i	i'
Em/A <sup>b</sup> Em9/A <sup>b</sup> Em/A <sup>b</sup>	Em7/A <sup>b</sup> Em9/A <sup>b</sup> C# <sup>o</sup> 7/A <sup>b</sup>	Em7/A <sup>b</sup> Em9/A <sup>b</sup> C# <sup>o</sup> F#m
50		Em/A <sup>b</sup> Em/A <sup>b</sup>
	j	
G+ C# <sup>o</sup> F#	G+ Em7 D# <sup>o</sup> 7 G11 G#11	
Em/A <sup>b</sup> Em/A <sup>b</sup> Em/A <sup>b</sup>	Em/A <sup>b</sup> Em/A <sup>b</sup> Em/A <sup>b</sup> Em/A <sup>b</sup> Em/A <sup>b</sup>	
53		
j	j	k'
Em7 D# <sup>o</sup> 7 G11 G#11	Em7 D# <sup>o</sup> 7 G11 G#11	Em11 D# <sup>o</sup> 11 AM7 F#m9
Em/A <sup>b</sup> Em/A <sup>b</sup> Em/A <sup>b</sup> Em/A <sup>b</sup>	Em/A <sup>b</sup> Em/A <sup>b</sup> Em/A <sup>b</sup> Em/A <sup>b</sup>	
55		
l		
D# <sup>o</sup> 11 A9 F#m11	G9 Em11 D# <sup>o</sup> 11 A9 F#m11	G+9 Em11 G+9 A9 F#m11
k	k	
58		
m	m	
G+11 Em13 D# <sup>o</sup> 11 C# <sup>o</sup> 7 F#m11	G+11 Em13 D# <sup>o</sup> 11 F#m11 A9 F#m11	
61		
l	l'	
G9 Em11 D# <sup>o</sup> 11 A9 F#m11	G9 Em11 D# <sup>o</sup> 11 A9 F#m11	B <sup>b</sup> m   B <sup>b</sup> m Cm
		E <sup>b</sup> E <sup>b</sup> G <sup>o</sup>   E <sup>b</sup> E <sup>b</sup> G <sup>o</sup>
k	k	
63		



Example 189 displays the chords used in the Coda section. There is an additional group of chordal repetitions which the author continues the label from previous examples as r.

### Example 189

Section Coda - chord analysis mm.85-101

										q'				
Cm7	Cm7	Cm7	Cm7	Cm7	Cm9	Cm9	G#11	AM7	B7	B#m	AM7	B7		
85						EM7	C#m7	C#m7	Em7	C#m7	C#m7			
										q'				
B#m	AM7	B7	B#m	A9	B	B#m9	A9	B	Cm7	C#m7	B9	B+9	C#m7	G#7
93			Em7	C#m7	C#m7	Em7	C#m7	C#m7						
										r				
G+11	C#m7	G+11	C#m7	G+11	C#m7	D#°11	C#m7							
98														

Neptune has three identical interval patterns. The first interval pattern is between chords in the A section from m.1 to m.2 and chords in the B section from m.28 to m.29 and from m.41 to m.44. (See Example 190.) There is a perfect fourth between the patterns that start with the chords Em, BM and F#m. There is a major third between the patterns that start with the chords Bm and E<sup>b</sup>m.

## Example 190

Chord and interval analysis mm.1-2

$\begin{array}{c} +4 \quad -4 \quad +4 \\ | \text{Em G\#m11} | \text{Em G\#m11} | \end{array}$

Chord and interval analysis mm.28-29

$\begin{array}{c} +4 \quad -4 \quad +4 \\ | \text{B D\#m} | \text{B D\#m} | \\ | \text{E}^b\text{m B} | \text{E}^b\text{m B} | \\ +4 \quad -4 \quad +4 \end{array}$

Chord and interval analysis mm.41-44

$\begin{array}{c} +4 \quad -4 \quad +4 \\ | \text{F\#m9} | \text{B}^b9 | \text{F\#m9} | \text{B}^b9 | \\ | \text{G}^b9 | \text{E}^b(\text{no3}) | \text{G}^b9 | \text{E}^b(\text{no3}) | \end{array}$

The second interval pattern is between chords in the second A section in m.9 and chords in the Coda section from m.93 to m.94. (See Example 191.) These two sets of chords are a tritone apart.

## Example 191

Chord and interval analysis mm.9

$\begin{array}{c} | \text{C}^\circ7 \text{ C}^\sharp7 \text{ C}^\flat7 \text{ C}^\sharp7 \text{ C}^\flat7 \text{ C}^\sharp7 | \\ | \text{D}\#m \text{ D}\#m \text{ D}\#m \text{ D}\#m \text{ D}\#m \text{ D}\#m | \\ | \text{Fm} \text{ E}^b\text{m} \text{ Fm} \text{ G}^b \text{ E}^b\text{m} \text{ Fm} | \\ +2 \quad +1 \quad -3 \quad +2 \end{array}$

Chord and interval analysis mm.96-99

$\begin{array}{c} +2 \quad +1 \quad -3 \quad +2 \\ | \text{B}\#m \text{ AM7} \text{ B7} | \text{B}\#m \text{ A9} \text{ B} | \\ | \text{Em7} \text{ C}\#m7 \text{ C}\#m7 | \text{Em7} \text{ C}\#m7 \text{ C}\#m7 | \end{array}$

The third interval pattern is in the C section between chords from m.68 to m.69 and chords in m.69. (See Example 192.) These two sets of chords are a perfect fourth apart.

### Example 192

Chord and interval analysis mm.68-69

	-2	+2	-2	-2	-1														
D <sup>b</sup> M7	Cm7	B <sup>b</sup> m7	Cm7	B <sup>b</sup> m7	A <sup>b</sup> M7	G <sup>°</sup> 7	A <sup>b</sup> M7	G <sup>°</sup> 7	Fm7	E <sup>b</sup> 7	Fm7	E <sup>b</sup> 7	D <sup>b</sup> M7	Cm7	B <sup>b</sup> m7				
E <sup>b</sup>	E <sup>b</sup>	G <sup>°</sup>	G <sup>°</sup>	G <sup>°</sup>	G <sup>°</sup>	E <sup>b</sup>	E <sup>b</sup>	E <sup>b</sup>	E <sup>b</sup>	E <sup>b</sup>	E <sup>b</sup>	E <sup>b</sup>	G <sup>°</sup>	G <sup>°</sup>	G <sup>°</sup>	G <sup>°</sup>			

Chord and interval analysis mm.69

	-2	+2	-2	-2	-1														
G <sup>°</sup> 7	A <sup>b</sup> M7	G <sup>°</sup> 7	Fm7	E <sup>b</sup> 7	Fm7	E <sup>b</sup> 7	D <sup>b</sup> M7	Cm7	B <sup>b</sup> m7										
E <sup>b</sup>	E <sup>b</sup>	E <sup>b</sup>	E <sup>b</sup>	E <sup>b</sup>	E <sup>b</sup>	G <sup>°</sup>	G <sup>°</sup>	G <sup>°</sup>	G <sup>°</sup>										

The harmonic ostinato is used in Neptune from m.16 to m.21. This harmonic ostinato appears in the form of arpeggiated Em and G#m chords which also can be considered a melodic ostinato. (See Example 193.) The ostinato appears for the first time in m.16 in the form of parallel intervals between flutes and bass flute while harp 2 plays the unison doubling of the parallel interval. The clarinet in A is added in m.17 and mm.19-21. The oboe and English horn are also added from m.18 to m.21 at which point the parallel interval has turned into complete triads. The last instrument added to the harmonic ostinato is the bass oboe in mm.20-21.

### Example 193

Musical score for Example 193, measures 18-24. The score includes parts for Flute (Fl.), Bass Flute in G (Bass Fl. in G), Oboe (Ob.), Clarinet in B-flat (Cl. in Bb), Bassoon (Bn.), and Harp II (Hp. II.). The key signature is one flat (B-flat major/D minor) and the time signature is 4/4. The flute and bass flute parts feature a melodic line with eighth-note patterns. The oboe, clarinet, and bassoon parts play a harmonic ostinato of three notes in parallel thirds. The bassoon part includes a *pp* dynamic marking. The harp II part provides a rhythmic accompaniment with chords and arpeggios.

There is a harmonic ostinato in horns from m.58 to m.64. (See Example 194.) This harmonic ostinato appears in the form of three notes ascending with harmonic doubling in the parallel third. Horns 1 and 2 start playing on the second beat of each measure while horns 3 and 4 start on the fourth beat.

### Example 194

Musical score for Example 194, measures 58-64. The score is for Horns in F (Hrn. in F). The key signature is one flat (B-flat major/D minor) and the time signature is 4/4. The score shows a harmonic ostinato of three notes ascending in parallel thirds, with harmonic doubling. The notes are G2, A2, and B2. The score includes a *ff* dynamic marking and a rehearsal mark (II) at the beginning of the passage.



Holst writes a harmonic ostinato in violins 2 and violas from m.85-87. (See Example 195.) This harmonic ostinato appears in the form of an arpeggiated Cm chord in open position. Arpeggiated chords in open position also appear earlier in violin 1 and 2 in mm.35-36, 39-40 and 48-49. Each appearance uses different minor chords. All earlier occurrences do not last long enough to be considered an ostinato.

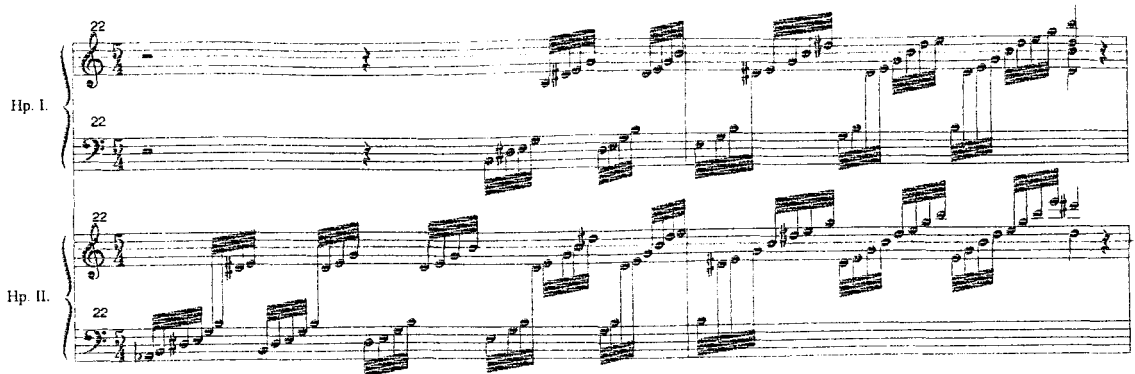
Example 195

The image shows a musical score for two staves: Violins II (Vns. II.) and Violas (Vas.). Both staves are in 4/4 time and start at measure 85. The music consists of a repeating arpeggiated figure of the Cm7 chord in open position. The figure is: C4 (quarter), E4 (quarter), G4 (quarter), Bb4 (quarter), C5 (quarter), Bb4 (quarter), G4 (quarter), E4 (quarter), C4 (quarter). This sequence is repeated every two measures. The notes are written in a rhythmic pattern that suggests a steady, pulsating accompaniment. The key signature has one flat (Bb), and the time signature is 4/4.

### Other Aspects

Holst creates a sequential passage from the ascending arpeggiated Em7 chord in harps 1 and 2 from m.22 to m.23. (See Example 196.) Holst switches this sequential passage to celesta in mm.25-26 and mm.28-29. Celesta plays an arpeggiated figure of the Em7 chord in mm.25-26 which changes to the Bm7 chord in mm.28-29. The sequential passage again returns to harp 1 in m.37 and to both harps 1 and 2 in m.38. The sequential passage returns for the last time in harps 1 and 2 from m.86 to m.89. Both harps 1 and 2 play only the Cm7 chord in these four measures.

### Example 196



Holst uses a series of sequential passage in celesta from m.45 to m.47. (See Example 197.) This sequential passage is an ascending figure which is different from the sequential passage in mm.22-23. Even though both passages have ascending figures, the sequential passage in mm.45-47 is not arpeggiated chords. This sequential passage appears as four sets of ascending 10-note figures. Each set uses the same pitch but each start on a different pitch. The sequential passage in mm.45-47 is created by joining two 5-note scales. Both sets of the 5-note scale use the same pitch except the second set is one octave higher than the first set.

### Example 197



Holst uses contrary motion in several areas in Neptune. This contrary motion occurs only in arpeggiated figures of the B section. The first contrary motion appears in violins from m.22 to m.24. (See Example 198.) The

arpeggiated figures in violins reappear in mm.37-38 also in contrary motion.

### Example 198

The image displays a musical score for Example 198, spanning measures 22 to 38. The score is arranged in seven systems, each with two staves. The instruments are: Trp in C (top staff), Trb (second staff), Timp (third staff, marked '(wooden sticks)'), Hp. I (fourth staff), Hp. II (fifth staff), Vns (sixth staff), and Vns (seventh staff). The music is in 3/4 time and features a variety of textures. The brass instruments (Trp and Trb) play sustained chords, while the timpani uses wooden sticks for a rhythmic pattern. The harps (Hp. I and Hp. II) play arpeggiated figures. The violins (Vns) play a complex, arpeggiated figure with various ornaments and phrasing. The score is marked with dynamics such as *pp* and includes performance instructions like '(wooden sticks)'. Measure numbers 22, 23, and 24 are indicated at the beginning of their respective systems.

The second area of contrary motion appears between celesta and harp 2 in m.27. Celesta plays arpeggiated figures in which harp 2 repeats the same figures one beat later. This delay repetition in harp 2 creates the contrary motion. (See Example 199.)

### Example 199

The musical score for Example 199, measures 27-36, is presented in a standard orchestral layout. The instruments and their parts are as follows:

- Picc.**: Piccolo, rests in measures 27-36.
- Ob.**: Oboe, rests in measures 27-36.
- E.H.**: English Horn, rests in measures 27-36.
- Bass Ob.**: Bass Oboe, rests in measures 27-36.
- Cl. in A**: Clarinet in A, rests in measures 27-36.
- Cymb.**: Cymbal, rests in measures 27-36.
- Cel.**: Celesta, plays a complex rhythmic pattern of eighth notes with triplets in measures 27-36.
- Hp. I**: Harp I, plays a sustained chord in measure 27, then rests.
- Hp. II**: Harp II, plays a complex rhythmic pattern of eighth notes with triplets in measures 27-36.
- Vns.**: Violins, play a sustained chord in measure 27, then rests.
- Vas.**: Violas, play a sustained chord in measure 27, then rests.
- Vc.**: Violoncello, plays a sustained chord in measure 27, then rests.

The third area of contrary motion is in mm.35-36. There are two sets of contrary motion in these two measures. The first set is in the arpeggiated figures between celesta and harp 1. The second set is in the arpeggiated

figures between violins and violas. (See Example 200.) The contrary motion of these arpeggiated figures reappears in mm.39-40 with the exception that it appears in harp 2 instead of harp 1.

### Example 200

The musical score for Example 200, measures 35-40, is presented in a standard orchestral layout. The score includes parts for the following instruments:

- Cl. in A
- Bcl. in Fb
- Bn.
- Dbn.
- Trp. in C
- Trb.
- Timp.
- Cel.
- Harp I
- Harp II
- Vns. (Violins)
- Was. (Violas)
- Vc. (Violas)
- Db. (Double Bass)

Measures 35-40 show a complex texture. The woodwinds (Cl. in A, Bcl. in Fb, Bn., Dbn., Trp. in C, Trb.) play rhythmic patterns. The timpani (Timp.) has a trill (tr) in measure 35. The celesta (Cel.) and harps (Harp I and Harp II) play arpeggiated figures. The strings (Vns., Was., Vc., Db.) play a rhythmic pattern with triplets and sixteenth notes. The harp II part features a prominent arpeggiated figure in measures 35-40, which is the focus of the text.

The last appearance of contrary motion is at the end of Neptune in m.101. Holst ends Neptune with two chords in contrary motion performed by the unaccompanied chorus. (See Example 201.)

Example 201

The image displays a musical score for two choruses, Chorus I and Chorus II, in measure 101. The score is written in 2/4 time and features a key signature of two sharps (F# and C#). The notation is arranged in four staves, with two staves for each chorus. The first two staves (Chorus I) show a chord of F#4 and C#5 in the first half of the measure, followed by a chord of F#3 and C#4 in the second half. The last two staves (Chorus II) show a chord of F#3 and C#4 in the first half of the measure, followed by a chord of F#4 and C#5 in the second half. This creates a clear contrary motion between the two choruses. The measure number '101' is written above the first staff of each chorus.

There is an inconsistency between the orchestral version and the 2-piano version from m.6 to m.13. The tremolo chords in harps 1 and 2 do not exist in the 2-piano version. (See Example 202.)

### Example 202

#### 2-Piano Version

The image displays a musical score for a 2-piano version, covering measures 6 through 13. The score is organized into two systems, each with three staves. The first system (measures 6-9) includes a grand staff (treble and bass clefs) and a separate staff for the Flute (Fl.) and Bass Flute (Fl. Bass Fl.). The second system (measures 10-13) includes a grand staff and a staff for the Horns (Horns.) and Euphonium/Horn (E.H.). The music is in 5/4 time and features complex rhythmic patterns, including tremolo chords in the piano parts. A first ending bracket is indicated by a dashed line above the first system, extending to the end of measure 9. The score includes various musical notations such as notes, rests, and dynamic markings.

Orchestral Version

Picc.  
Fl.  
Bass Fl. in G  
Ob.  
E.H.  
Hrn in F  
Hp. I  
Hp. II  
Vn. I

This block contains the first system of an orchestral score. It features eight staves: Piccolo (Picc.), Flute (Fl.), Bass Flute in G (Bass Fl. in G), Oboe (Ob.), English Horn (E.H.), Horn in F (Hrn in F), Harp I (Hp. I), Harp II (Hp. II), and Violin I (Vn. I). The Piccolo and Flute parts have melodic lines with slurs and dynamic markings like *pp* and *11b2*. The Harp parts feature complex chordal textures with many accidentals. The Horn and Violin I parts are mostly silent in this system.

This block contains the second system of the orchestral score, continuing from the first system. It features ten staves, likely representing the string section (Violins I, Violins II, Violas, Cellos, Double Basses) and woodwinds. The woodwinds have melodic lines with slurs and dynamic markings like *pp*. The string section has a complex texture with many accidentals and slurs, indicating a dense harmonic structure.



There are many inconsistencies between the orchestral version and the 2-piano version in the B section. All the inconsistencies are in varied arpeggiated figures. Some of these arpeggiated figures either do not exist in the 2-piano version or are slightly different. Because there are too many areas with the same problem, the author will not define each case. Instead the author will present one example from m.22 to m.23. (See Example 203.) In this example, the arpeggiated figures in harp 1, harp 2, violins 2 and violas do not exist in the 2-piano version. The arpeggiated figures in violins 1 are also slightly different from the 2-piano version.

### Example 203

#### 2-Piano Version

The image displays a musical score for Example 203, titled "2-Piano Version". It consists of two systems of staves. The first system is for Harps 31r, with two staves (treble and bass clefs) showing arpeggiated figures starting at measure 22. The second system is for Trpt. Tromb. Timp., with two staves (treble and bass clefs) showing a similar arpeggiated figure starting at measure 22. The tempo marking *mp* is present in the second system. The score is written in 4/4 time and includes dynamic markings.

Orchestral Version

22  
Trp in C  
*pp*

22  
Trb.  
*pp*  
(wooden sticks)  
*tr*

22  
Timp.  
*pp*

22  
Hp. I.

22  
Hp. II.

22  
Vns.

22  
Vas.

205

## CONCLUSION

Like Gustav Holst, the author has always been interested in astrology. This started when the author was about 9 years old and found the father's two hard bound volumes of ancient astrology. As a student of both music and astrology, the author thinks Holst did a remarkable job in expressing the astrological character of each planet in this composition.

Mars expresses masculinity, forcefulness, aggressiveness, primitive energy, courage and adventure. Like a painter, Holst uses his music to create the picture of a war from the beginning to the end. The author feels the raw energy from the rhythmic ostinato from the start. The army begins to march in m.66. The fanfare announces the beginning of the war campaign and is performed by the solo tenor tuba and the soli trumpets from m.68 to m.74. The author hears the first bomb in m.95 and a series of bombs from m.158 to the climax in mm.167-171 in which Holst indicates fortissimo (*ffff*). The bombing campaign is followed by the confusion of people and ends with a victory march. Mars is a very exciting movement, however, the only area that the author does not think works well is the war fanfare canon between the solo tenor tuba and two trumpets from m.84 to m.90 and m.136 to m.142. The author feels that Holst should have doubled the solo tenor tuba with another instrument. The solo tenor tuba is not strong enough to play against two trumpets. If the tenor tuba is doubled, the canon would be clearer.

Venus expresses femininity, gentleness, sweetness, peace, calm and affection. Venus is the author's favorite movement in *The Planets*. The author has never heard music express femininity as perfectly as Venus, especially in the sweetness of the solo violin melody from m.32 to m.37. It is clear that Holst creates Venus with a gentle touch, care and utmost tenderness. Every time the author listens to Venus, it also evokes the image of a quiet and peaceful place

in the early morning waiting for the sun to come up, the flowers to bloom and the whole world to come alive. It is also the time one can see the morning star.

Mercury expresses liveliness, quickness, playfulness, youth and gaiety. Holst uses vivace to create both quickness and liveliness in Mercury. It is also interesting that he moves motives and melodies around to various instruments which creates an illusion of movement. It is like watching Mercury flying from place to place to deliver messages to the gods. Mercury is one of the two movements that use rhythmic ostinato. However, in Mercury, the rhythmic ostinato does not stand out as it did in Mars because it is played by violins 1, glockenspiel and timpani with the dynamic of piano or pianissimo.

Jupiter expresses cheerfulness, hopefulness, liveliness, benevolence, vanity and majesty. To the author, Jupiter elicits the feeling of adventure in an exotic place. The use of tambourine with the third theme of Jupiter from m.124 to m.131 and from m.356 to m.363 reminds the author of music from certain Middle East areas. Most of all, the music of Jupiter gives the majestic feeling which is suitable for king of the gods. There are several sections in this movement that suggest the feeling of the king-like march.

Saturn expresses old age, lethargy, melancholy, patience and pride. Holst associates old age with time and expresses it with a clock-ticking sound against a slow melody. The author hears a slow clock-ticking sound from the beginning and later there seems to be more different kinds of clocks sounds. Holst admitted that Saturn is his favorite movement in *The Planets*!

Uranus expresses abnormal things, magical force, animation, playfulness. Uranus reminds the author of Paul Dukas's *L' Apprenti sorcier* which is used in the Disney's animation film *Fantasia*, especially in the first theme of Uranus. One thing that the author does not think works well is the first 4-note motive played by timpani. This is because of the shorter

note values combined with the low register of the timpani. The author hears more of the beating sound rather than the pitches. The author thinks Holst should have doubled timpani with another instrument such as a double bassoon or double basses playing pizzicato.

Neptune expresses mystery, infinity and unknown territory. Listening to the music of Neptune is like travelling into space. Millions of stars are twinkling. There are mysterious and eerie feelings of travelling into the unknown territory. The music of Neptune gives a very futuristic feeling. The author believes the music of Neptune can easily be used in a science fiction movie about the universe. It is also interesting that Holst chose to express Neptune with the feeling of outer space instead of the water or ocean since Neptune or Poseidon (Greek) is the god of the sea. One reason might be that when Holst wrote *The Planets*, Neptune was the planet farthest from the sun. (Pluto was not discovered until 1930.)

Holst did not like when people thought that *The Planets* was about Greek or Roman gods. People seem to get this idea because Mars is the Roman god of war and Mercury is the god of commerce and science who also serves as a messenger to the other gods. However, the author agrees with Holst because several changes would have had to be made if he were to describe those gods. The most obvious change is that he could not have used Saturn because it is not one of the gods. The seventh movement would have to be called Uranus instead of Neptune because Uranus or Ouranos (Greek) is the god of the sky. Holst also would have had to rewrite the music to express the sea for Neptune.

To summarize *The Planets*, the author believes the piece to be an exercise in the use of ostinatos. Although *The Planets* is a beautiful piece of music, it lacks the depth and level of sophistication compared to Anton Webern's *Second Cantata* which the author has previously done a technical

analysis study. The *Second Cantata* is a shorter piece than *The Planets*, however, it contains multilevel ideas which are disguised and intertwined both in the individual movements and in between the movements. This technical complexity makes discovering the secret of the composition more exciting and interesting. *The Planets* is a straight forward composition, beautifully done, but simple in its execution. There is some complexity in the harmonic analysis which is caused by the multiple layers of ostinatos. The author believes Holst may have overused the ostinatos, however, they seem to serve his musical purpose beautifully.

There are many people who have never had the opportunity to listen to this wonderful piece of music. There are even fewer people who know the existence of the 2-piano version, which is charming but is not as powerful as the orchestral version. Most people may not know of Gustav Holst as they do Bach, Mozart or Beethoven, however, Holst deserves strong recognition for this remarkable work. The author has enjoyed *The Planets* since listening to it for the first time and would recommend that everyone experiences the music of both the orchestral and the 2-piano version.

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## ORCHESTRATION

4 Flutes (3rd doubling 1st Piccolo, 4th doubling 2nd Piccolo and Bass  
Flute in G) \*  
3 Oboes (3rd doubling Bass Oboe)  
English Horn  
3 Clarinets in B<sup>b</sup> and A  
Bass Clarinet in B<sup>b</sup>  
3 Bassoons  
Double Bassoon

6 Horns in F  
4 Trumpets in C  
2 Tenor Trombones  
Bass Trombone  
Tenor Tuba in B<sup>b</sup>  
Bass Tuba

6 Timpani (2 Players)

Triangle	}	Three Players
Side Drum		
Tambourine		
Cymbals		
Bass Drum		
Gong		
Bells		
Glockenspiel		
Celesta	}	Two Players
Xylophone		
2 Harps		
Organ		
Strings		

In the 7th Piece only, a Hidden Choir of Female Voices in 6 Parts

\* In modern orchestration, the flute in G is the alto flute and the bass flute is in C.