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The GENESIS: A Symphonic Work and Analysis

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Abstract

The biblical account of creation found in the *Book of Genesis* is known to billions around the world through its proclamation by multiple religions and numerous denominations. As such it is embedded in many cultures, especially that of the Western civilization and art. This article contains all but two of the movements, three and six, of Max Keller's analysis of his multi-movement symphonic work *The Genesis*. The work sought to be a musical expression of the creation narrative found in the *Book of Genesis,* with direct correlations to the original Hebrew text. As such, the analysis takes an in-depth look into the relationship between the composition itself and the text, with specific attention given to the translations of the original Hebrew into English to better understand the reasoning behind the interpretative choices made by the composer and how they are applied musically.

Key words: *Genesis, creation, exegesis, composition, music analysis*

Literature Review

Some of the earliest accounts of Genesis' story of creation can be found in poetry of the Bible in the book of Psalms. "By the word of the LORD were the heavens made; and all the host of them by the breath of his mouth." (Psalms 33:6) According to the Hebrew Bible, the Tanakh, God is the creator of the universe and as such "Creation became a key-point in the faith of Israel…" (Luz, 2010). Christians trace their history and faith through the Israelites' writings up until the birth of Jesus. Two of the gospel writers, Matthew and Luke, take particular time to establish Jesus' genealogy within the history of the Jewish nation and ultimately the world. The account given by Luke begins with Jesus and works backwards to the first man, Adam, and then ultimately God the Creator (Allen, 2015). Coming out of the same tradition, followers of Jesus, Christians, hold creation as a foundational tenant of their faith. As such, the book of Genesis has been the source of inspiration for many great works of Western art.

In 1512 Michelangelo completed his commission from Pope Julius II, the frescoes covering the ceiling of the Sistine Chapel. "The Sistine Chapel holds a central place in Christendom as the private chapel of the pope and the site of the papal conclave, where the College of Cardinals gathers to elect new popes. Thanks to Michelangelo… however, the chapel's significance extends to all who have been inspired by the originality and power of his vision—both directly and indirectly, through its influence on subsequent artists and the iconography of world culture." (Katz, 2009).

The epic poem *Paradise Lost* by John Milton was first published in 1667. When considered today "*Paradise Lost* is not just the greatest epic poem ever written in the English language, it is also one of the greatest epic poems in the wider European Tradition." (Reisner, 2011, p. 151). The poem goes much beyond the creation of the world to include war in heaven and the fall of mankind described in the *Book of Genesis* after the creation story with its final climax being the telling of the plan of redemption to Adam before he and Eve are cast out of the Garden of Eden (Milton, 1667). While *Paradise Lost* is the most well-known and influential work, there are many others that deal with the biblical creation. Many such works also focus on the fall of mankind, perhaps due to the drama of a perfect world being corrupted. However, the 20th century poem *The Creation* by the American poet James Weldon Johnson published in 1922 does not delve into any areas other than the creation of the world (Johnson, 1922). Instead, it ends with the creation of man thereby making that the culminating climax of the work which much more in alignment with the first chapter of *Genesis*.

Perhaps the seminal work in regards to biblical creation in the classical repertoire is Haydn's oratorio *The Creation,* which had its public premier in 1799. Not completely unique in its language,

Milton's epic poem *Paradise Lost* was a reference for the libretto of Haydn's work (Edwards, 1891). "In *The Creation* we see the greatest composer of the time, at the very height of his powers, gathering all his resources to tackle the central mystery of our existence. It was a supreme moment in musical history." (Temperley, 1991, p. 8).

In the 20th century, a collaborative work headed by film composer Nathaniel Shilkret depicted not only creation, but many of the other stories in Genesis up to the fall of Babel. The work entitled *Genesis Suite* was completed in 1945 and included seven composers. In order by movement they were Arnold Schoenberg *Prelude – Earth was without form*, Nathaniel Shilkret *Creation*, Alexandre Tansman *Adam and Eve*, Darius Milhaud *Cain and Abel*, Mario Castelnuovo-Tedesco *The Flood ("Noah's Ark")*, Ernst Toch *The Covenant ("The Rainbow"),* and Igor Stravinsky *Babel*. This work covers much more than just the creation and finishes with the scattering of mankind after the tower of Babel in *Genesis* chapter 11.

A more recent large-scale work depicting the creation is the ballet *The Creation of the World* by the Russian film composer Andrei Petrov in 1968. "The Creation of the World shows Petrov to be a kind of tongue-in-cheek faux-naif with its grotesque and effervescent mixture of folk, jazz, and the nursery." (Snook, n.d.). The ballet is based on and named after the cartoon cycle of the same name by the French painter and cartoonist François Lejeune who worked under the pseudonym Jean Effel.

Throughout the pantheon that is Western music, the amount of large-scale orchestral works depicting the biblical account of creation are not as numerous as would perhaps be expected of a subject matter that has been and is still exceedingly culturally influential. However in addition to the creation found in the Book of Genesis, the Bible as a source of inspiration is extremely prevalent in Western classical and contemporary music as can be attested to by oratorios such as Handel's *Messiah*, Felix Mendelssohn's *Elijah*, and John Adam's *El Niño*, the ballet *Job: A Masque for Dancing* by Ralph Vaughan Williams, the song cycle *Four Serious Songs* by Brahms, and Leonard Bernstein's Symphony No. 1 entitled *Jeremiah* not to mention the expansive abundance found in the areas of sacred choral and solo vocal works.

Methodology

The Genesis is a programmatic symphonic work composed by Max Keller in 2016 that depicts the creation of the heavens and the earth as described in the biblical book of *Genesis*. The scoring is set for 2 Flutes, Oboe, English Horn, 2 Clarinets in B¨, 2 Bassoon, 4 Horns in F, 2 Trumpets in B¨, 2 Trombones, Bass Trombone, Tuba, 4 Timpani, 3 Percussion, Harp, Violin I, Violin II, Viola, Cello and Bass.

Due to length restrictions, this article does not include movements three and six from *The Genesis* or their analysis. However, it does follow the format of the complete paper which is divided into two main sections, the methodology which addresses the texts considered and pre-compositional thoughts, and the analysis, which seeks to display those thoughts in the music. Both sections are organized in seven smaller sections coinciding with each of the seven movements of the work. However, the movements themselves are set according to the days of creation described in the *Book of Genesis*. Each day of the creation, while containing unique traits and formations, fits sequentially into an overarching narrative, and was also viewed in a teleological fashion with the completion of all the Earth and its living inhabitants as the goal. Essentially the analysis will view the entire creation week as being contained within a timeline that depicts order and aesthetic beauty formed out of nothing as well as chaos.

Movement 1. Tohu (Confusion) *[1]In the beginning God created the heaven and the earth. [2]And the earth was without form, and void; and darkness was upon the face of the deep. And the Spirit of God moved upon the face of the waters. [3]And God said, Let there be light: and there was light. [4]And God saw the light, that it was good: and God divided the light from the darkness. [5]And God called the light Day, and the darkness he called Night. And the evening and the morning were the first day (KJV, Genesis 1:1-5)*

To be able to describe how musically this scene could be depicted, the description of the state of the earth must be examined. Starting in verse two the Earth is described as being "without form, and void." The words "without form" come from תֹ֣הוּ (ṯō-hū). According to Strong (1890), this word carries with it multiple meanings: formlessness, confusion, unreality, and emptiness (h. 8414). Emptiness would coincide with the next description, void, which comes from וָבֹ֑הוּ (ḇō·hū) and simply means emptiness (Strong, 1890, h. 922). The image initially would appear to be one of nothing, shrouded in darkness. A void of darkness implies emptiness which musically could be directly interpreted as silence. One of the most fundamental elements of sound and music is duration. Silence cannot be heard in terms of pitch or harmony: it is heard in terms of time length (Cage, 1968). The first time length in the text is described is in verse five, after the creation of light. It is thus impossible to know the duration of time before that moment. Even the concept of true void cannot be replicated for us. There is no such thing as an empty space or an empty time. There is always something to see, something to hear. In fact, try as we may to make a silence, we cannot…Until I die there will be sounds. And they will continue following my death (Cage, Experimental Music, 1978, p.8).

Even with a true void being sonically impossible to recreate, a close interpretation of the text implies that a void is perhaps not the best translation. Right after a formless void is described the Spirit of God "moved upon the face of the waters." Clearly there must be more than just a void waiting to be filled. Something already exists as there is water for the Spirit of God to move over. Yet, there is a lack of structure and logic to these concepts, emptiness but substance, which create an irrational juxtaposition when compared to the universe as currently understood. This conflict of void and substance existing in the same place at once can perhaps be described by the other meanings of the word תֹ֣הוּ (ṯō-hū), those being: formlessness, confusion, and unreality. This confusion and formlessness, chaos, is truly logical as the realities of the observable world were not yet created.

Parallel to the confusion around a void with waters, the concept of chaos in music is a bit of a paradox. Webster's dictionary defines music as "the science or art of ordering tones or sounds in succession, in combination, and in temporal relationships to produce a composition having unity and continuity" (Merriam-Webster, 2016). By simply putting order to sound, structure is created which instantly removes some amount of potential chaos. Confronted with Haydn's depiction of chaos in the first movement of his oratorio *The Creation* Dolan (2013) says, "In broad terms, it presents two problems to present-day critics. The first relates to the idea of composing music disorder. As auspiciously "unmusical" music, Haydn's depiction of chaos raises ontological questions about the nature of the art form itself. An artistic representation of chaos is potentially problematic and self-contradictory, demanding that art embody something that is antithetical to it" (p. 136).

However problematic it may appear to be from a musical standpoint, there is substance to chaos which gives more material to work with than a formless void.

> …"Chaos" is also a multifaceted statement of "fierce extremes contiguous" and "irregular mixtures," ein *Mischmasch*. At the very center of these latter definitions is the two-tiered concept of the piece which extends back to the earliest sketch; one style exudes the formalism of the liturgy, the other the freedom of the fantasia. The joining of the two different styles of the *ricercar*, other "distempering" juxtapositions, and the bringing together of appropriate music figures, was how Haydn represented "Chaos"… (Brown, 1989, p. 59).

Using two styles simultaneously was Haydn's solution to create a sense of confusion and hence chaos. Prior to Haydn's *attempt to depict chaos*, Rameau's solution in the overture to his opera *Zaïs (1748) was to use broken phrases to disrupt normal formal structures expected thereby putting confusion into his audience's mind.*

In addition to this issue of describing a chaotic unreality, the state of the earth is dark and cannot be seen until God calls forth light, in verse three. Light is then divided from darkness and the cycle of a full day, day and night, is established. With this, the first structures are put into place starkly contrasting the described state of the earth, which at this point has not changed but is simply illuminated. For a composer, this instant when the first bit of creation is enacted easily lends itself to a concept of piercing clarity as well as an overarching formal structure of tension, created by chaos, and release.

[In Haydn's oratorio] The moment of apotheosis comes at the creation of Light, a moment toward which all else ineluctably moves: toward the grand C major at "unde es ward Licht." This much celebrated C major chord "resolves" all the dissonance of Chaos, and its seemingly impermeable C minor (Kramer, 2012 p. 155).

Haydn sets up the creation of light as a striking moment of clarity and structure through the simple presentation of an epic major chord after implications of minor covered by a chromatic line. This sort of resolution from chaos is also seen in Jean Fery Rebel's overture to *Les Elemens* (1737). According to Rebel,

The introduction to the *Simphonie*….is Chaos itself, the confusion that reigned between the Elements before the instant when, obeying unchanging laws, they had taken the places assigned to them in the Natural order. I have tried to undertake to join to the idea of confusion of the Elements that of the confusion of the harmony, I have tried to have heard at first all the sounds mixed together, or rather, all the notes of the Octave untied in a single sound. Following this, these notes climb together in an altogether natural progression and, after a dissonance, on hears a perfect chord (as cited in Anthony, 1974, p. 310).

However powerful, this effect may be the ramifications of fighting against the Biblical text. It is as if in that moment, all of creation was formed into being, and while that may have been case in Rebel's work, in the Hebrew account of creation the act of light's creation was only the first step. Everything is not put into place. Earth's condition was still a confusing state at this point. Therefore, the perceived consonance of a tertian triad is not merited due to the persisting existence of chaos.

To accurately depict the text there are a few key points that need to be addressed: the chaotic condition of the earth, the Spirit of God moving over the waters, and the creation of light and day. These will be the main structural features looked for in the musical materials and results produced.

Movement 2. Raqia (Firmament) *[6] And God said, Let there be a firmament in the midst of the waters, and let it divide the waters from the waters.[7] And God made the firmament, and divided the waters which were under the firmament from the waters which were above the firmament: and it was so. [8] And God called the firmament, Heaven. And the evening and the morning were the second day (KJV, Genesis 1:6-8).*

There is much debate around what exactly is created on the second day. Is it all of the heavens? Then why is there creation of the sun, moon, and stars on the 4th day? Is it the sky? Then why is it separating waters since we don't find water above the sky? The word for firmament רָקִ֣יעַ (rā·qî·a‘) is defined as an extended surface or expanse. Strong continues by saying that it is, from raqa'; properly, an expanse, i.e. the firmament or (apparently) visible arch of the sky -- firmament (Strong, 1890, h. 7549). This would seem like a clear definition until the word רָקַע (raqa') is explored. Strong defines this word as: to beat, stamp, beat out, or spread out (1890, h. 7554). Stamp or beating implies a more physical phenomenon than just the visual illusion we know as the horizon, and more importantly where is the water the sky is in the middle of?

Genesis 1 says several important things about the "firmament." First, its function was to separate the waters below from those above. The fact that it separates the waters could suggest that there is an element of concreteness to it, but nothing is said specifically. This silence makes it possible for us to use the modern word "atmosphere" to designate it. Second, the suggestion that the reference is to the atmosphere is reinforced by the fact that the "firmament" is the space where birds fly "Let birds fly above the earth across the expanse of the sky" (verse 20, NIV) Third, the "firmament," or expanse, is specifically called "heavens," or more precisely, "sky" ... The emphasis is not on concreteness but rather on the space separating the waters… The word "firmament" does not distinguish between the sky and the stellar heavens, but neither does it deny that distinction. The description in the text is from the perspective of a person who looks up and sees the moon and the sun in the sky (Rodríguez, 1999, p.1-2).

Other theories of the firmament include some type of physical canopy in the form of a dome of liquid water, water crystals, or water vapor as theorized by Henry M. Morris in *The Genesis Record*. Regardless of whether it is a separation of bodies of water, a visual illusion created by the formation of the sky, or simply a stretching out of the atmosphere and/or space above, the text is clear that there is a division of two things by an expanse. The emphasis for a narrative of the second day musically is then the action of dividing things from each other, one above and one below.

Movement 4. Kokab (Stars) *[14] And God said, Let there be lights in the firmament of the heaven to divide the day from the night; and let them be for signs, and for seasons, and for days, and years:[15] And let them be for lights in the firmament of the heaven to give light upon the earth: and it was so.[16] And God made two great lights; the greater light to rule the day, and the lesser light to rule the night: he made the stars also.[17] And God set them in the firmament of the heaven to give light upon the earth,[18] And to rule over the day and over the night, and to divide the light from the darkness: and God saw that it was good.[19] And the evening and the morning were the fourth day (KJV, Genesis1:14-19).*

For the first three days of creation, light had just been present without acknowledgment of its source. There had been evening and morning each day, yet it is not described how the light came or went. With the creation of the sun, moon, and stars, order to the heavens is brought about as well as giving the light a defined source.

Not mentioned in the text is that the source of the moon's light is its reflecting of the sun's light. This reflection is an interesting aspect to consider musically. Many compositional techniques such as pitch inversion, retrograde, and palindromes can all be viewed in terms of reflection making them fitting choices for the presentation of the moon.

Another consideration in terms of difference between the sun and the moon is the presence of radiant heat. The moon does not give warmth to the earth with its light in any discernable amount. Before the moon there is no mention of light at night. There was light for the day and darkness for the night. In addition, there was no mention of whether the light of the day gave off heat or not. With the creation of a greater light to rule the day and lesser light at night, the biggest difference, other than the amount of light, is heat. While there is no direct musical equivalent to temperature, heat as well as light can be observed in terms of relative intensity which is more easily equated to music through dynamics, articulation, and orchestration.

Movement 5. Tannin eth Oph (Whales and Birds) *[20] And God said, Let the waters bring forth abundantly the moving creature that hath life, and fowl that may fly above the earth in the open firmament of heaven. [21] And God created great whales, and every living creature that moveth, which the waters brought forth abundantly, after their kind, and every winged fowl after his kind: and God saw that it was good. [22] And God blessed them, saying, Be fruitful, and multiply, and fill the waters in the seas, and let fowl multiply in the earth. [23] And the evening and the morning were the fifth day. (KJV, Genesis 1:20-23)*

The foundations of the earth have been laid. The observable heavens are in place, and the world has been populated by plants. At this point the first moving creatures are created. While on the surface this portion of the text appears straightforward in terms of what is created, it is interesting that two types of animals are more specifically mentioned, those being flying fowl and whales, and a large portion are grouped separately, "every living creature that moveth, which the waters brought forth..." The word "whales" is actually translated from two words הַתַּנִּינִם (hat·tan·nî·nim) which means serpent, dragon, or sea monster (Strong, 1890. h. 8577) and הַגְּדֹלִים (hag·gə·ḏō·lîm) which means great (Strong, 1890. h. 1419). Granted there is the possibility of some debate as to if this means only whales or if other large sea creatures, such as the giant squid, might also be included. However, if it is truly just referring to whales then from a musical standpoint it is quite interesting in that a majority of animals of flight as well as a few whales are known for their singing.

[Humpback] Whale songs are structured like this: One or several sounds make up a phrase, the phrase is repeated and becomes a theme, and several themes make up a song. On average songs last from seven to thirty minutes, the singer will repeat the song in its same order… Whales do note sing mechanically but compose as they go, incorporating new pieces into old songs… (Picoult, 1992. p. 7).

When compared to whales, a much larger number of birds sing and make music. Famed ornithologist Luis Baptista said,

"As composers, birds often use the same rhythmic variations, pitch relationships, permutations and combinations of notes as found in music so that some bird songs resemble musical compositions. And they often vary themes in much the same way as humans." Some bird song uses the eight-note scale of Western music, and others use a five-note scale common in Chinese music. (Baptisa, 2000, as quoted in the LA Times)

With obviously some exceptions and a little poetic license, it can be read that the more specifically grouped animals created on this day were in effect musicians as most other sea life (i.e. fish, crustaceans, mollusks, etc.) do not produce any sounds resembling music, if they produce sounds at all.

With the concept of the focal creation of the day being nature's musicians, then a piece utilizing techniques to mimic the songs of these creatures would be an appropriate representation and tribute to the Earth's first musicians. There have been multiple instruments and playing techniques developed to specifically mimic various animal and nature sounds. Instruments or techniques that mimic birds could include, but are not limited to, water whistles that mimic song birds, the "sea gull effect" developed by George Crumb, slide whistles, or even specifically designed hunting calls such as a wooden duck or turkey call. Whales on the other hand are not as prominently featured in the musical traditions of humans, but this is perhaps due to the relatively new knowledge of their music when compared to that of birds. Still, there are instruments and techniques that can be adapted to mimic their vocalizations such as various uses of a friction mallet, bow pressure, or a waterphone.

Movement 7. Shabath (Rest) *[1]Thus the heavens and the earth were finished, and all the host of them. [2]And on the seventh day God ended his work which he had made; and he rested on the seventh day from all his work which he had made. [3]And God blessed the seventh day, and sanctified it: because that in it he had rested from all his work which God created and made. (KJV, Genesis 2; 1-3)*

The 7th day of creation is one of rest from work. The word for rest is שָׁבַת (šā·ḇaṯ) which can be interpreted as to repose or to celebrate (Strong 1890, h. 7673) and celebration after the physical creation of the world. The day special in that it is sanctified coming from the word וַיְקַדֵּשׁ (way·qad·dêš) which means to be set apart or consecrated (Strong 1890, h. 6942). While the 7th day does not bring any new physical creation, it brings a special day in which work is ceased.

There could be multiple interpretations of the 7th day musically. There is rest, celebration, a blessed and sanctified day, and each one elicits a different expectation of mood and musical style for a listener. In addition to this, other than the day being set aside, and God resting from his work, there is no more detail as to what the activities of the day entail. There is no account as to the activities of the new

couple in the garden or the animals. Perhaps it is then best to leave the details of the day up to the listener and allow them to rest from their work of listening while giving them an opportunity to reflect and contemplate the interpretation of the biblical account by the piece itself.

Analysis

Movement 1. Tohu (Confusion) In the first movement of The Genesis, the main elements of the text found in verses two through five are: the chaotic state of the world having some substance but existing outside of time, the Spirit of God moving over the waters, and the creation of light illuminating the world.

To give a sense of chaos but suspense for what is to come within an empty space, the strings are in unmeasured tremolo. Building by entrances at the P5 they continue until all twelve pitches are present.

The second element is the Spirit of God moving over the waters. This is depicted in the timpani line, as shown in Figure 1, which uses snare drum sticks while the drum pedal is worked to raise and lower the pitch.

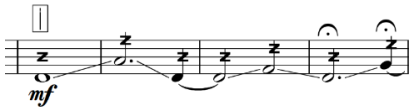

Figure 1. *Tohu (Confusion)* measures 17-20 (Keller, 2016)

The third element, the creation of light, is where the work really changes in philosophy from many other works. It is signaled by the timpani and bass drum rhythmically voicing “let there be, Light!” (Figure 2). At that moment, the tam-tam and cymbals fill out what would be the articulation of the word “light,” the chaos created in the stings is exposed, while the winds cut through with quintal harmonies in rising and falling dynamics as if they are rays of light shining through the confusion. Eventually the winds give one last chord and then fade away, leaving the strings to wander into the newly created night of the next day.

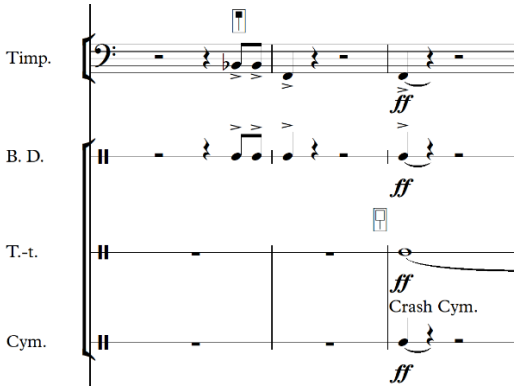

Figure 2. *Tohu (Confusion)* measures 32-36 (Keller, 2016)

Overall this movement follows the structure of a day as described in the Bible. The biblical day starts with evening, night, and beings with morning. By retaining the morning until the later portion of the movement, it mimics this while also depicting the continuation of the state of the world into the next day at the end.

Movement 2. Raqia (Firmament) The structure of the second movement revolves around the conceptualization of vertical separation in reference to the creation of the firmament. After the mixing of all pitches to form chaos in the first movement, pitch is used to depict this vertical separation and to give a sense of progression away from chaos towards order and design. Pitch is naturally recognized

based on frequency and each pitch can be described as being higher or lower compared to a different pitch.

To depict the expansion, a centralized pitch was chosen and then chords emanating out of it getting higher and lower at the same time were used. The chords were chosen by ear, but were thought of moving in stepwise motion as much as possible.

In the score the orchestra is divided into four sections: the harp, percussion, those being higher in pitch (Flutes, Oboe, English Horn, Clarinets, Horns, Trumpet, Violin and Viola), and those lower in pitch (Bassoons, Trombones, Bass Trombones, Tuba, Cello, and Bass). To start, the timpani and snare hold a rhythmic ostinato in a compound time signature of $\frac{12}{8}$ that is punctuated by a duplet pattern every two measures, giving a sense of ambiguity between simple and compound times (Figure 3).

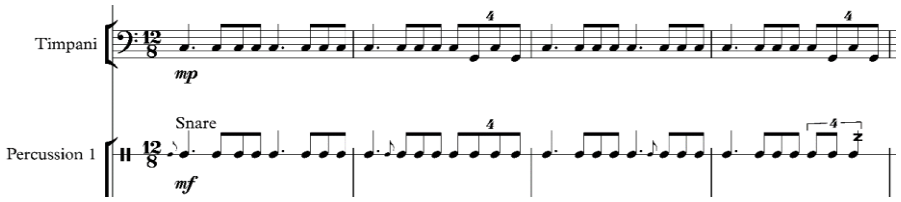

Figure 3. *Raqia (Firmament)* measures 1-4 (Keller, 2016)

The wind and string sections of the orchestra are divided into two choirs: those being higher in pitch (Flutes, Oboe, English Horn, Clarinets, Horns, Trumpet, Violin and Viola), and those lower in pitch (Bassoons, Trombones, Bass Trombones, Tuba, Cello, and Bass). These choirs may not be easily distinguished on first observation as they are in rhythmical unison creating short orchestral hits. However, the choirs are harmonized around their own pitch materials with one rising vertically in pitch overall and the other descending with the focal point starting at C (Table 1).

High Choir				G	A	B	C♯	D	D♯	E	G
				E	F♯	G♯	A	A	A♯	C	D
			F♯			E	F♯	F	F	G♯	A
		D	D	C	D	C♯	D	C	C	D♯	F
Timpani	C										
Low Choir		B	B	A	D	A	A	G	G	F	F♯
			G	F	G	F♯	E	C	C	A♯	A
					E	D	B	F	F	D♯	C
						B	F♯	A♯	A♯	G♯	D♯

Table 1. *Raqia (Firmament)* orchestral pitch analysis

These two sections combined in the meter lend themselves well to creating a sense of order and structure being forced though the dense confusion of pitch presented in the first movement.

In the midst of these elements is the harp which is given watery glissandos to counter the attacks of the other instruments and represent the element of water itself. The harp then glissandos down to its low range and stays brooding there (Figure 4).

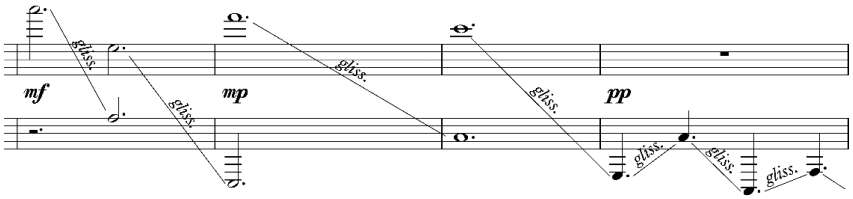

Figure 4. *Raqia (Firmament)* measures 17-20 (Keller, 2016)

The woodwinds then introduce and begin melodic development on the interval of a perfect fifth while the ostinato is tucked away in the basses in augmentation (Figure 5).

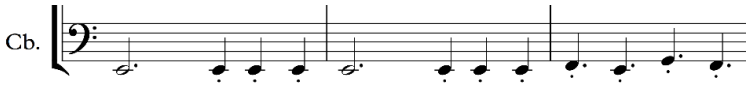

Figure 5. *Raqia (Firmament)* measures 17-19 (Keller, 2016)

This short quiet break is interrupted by the full forced return of the percussion ostinato and orchestral expansion which crescendos only to leave the percussion quietly alone. Here the melodic theme built from the perfect 5th is brought back by the horn, Figure 6, and then developed by the woodwinds.

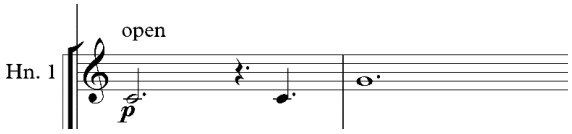

Figure 6. *Raqia (Firmament)* measures 41-42 (Keller, 2016)

The brass section then comes in and combines the intervallic based theme with the rhythmic ostinato for a grand climactic ending which implies C major, Figure 7, but finally concludes with a three note quintal chord of C, G, and D.

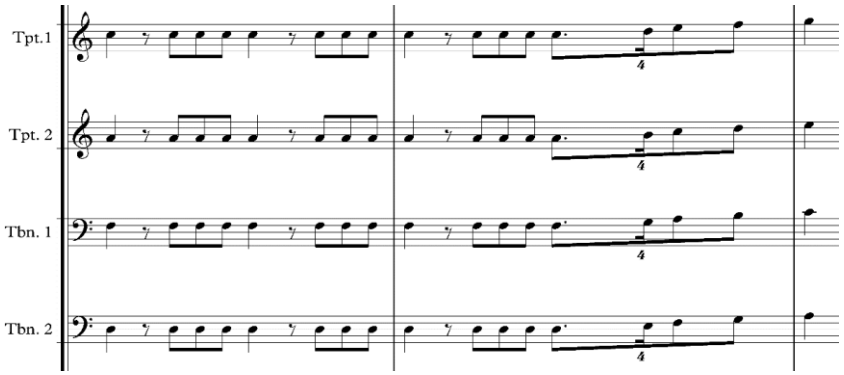

Figure 7. *Raqia (Firmament)* measures 51-52 (Keller, 2016)

The ending of this movement with the quintal chord gives a bright but open ended sound. This is a reference to the creation of the firmament on that day, but being open and unresolved in terms of functional harmony it is also a fitting conclusion to the placement of the text and movement within the larger scope of the work.

Movement 4. Kokab (Stars) The movement starts with just the vibraphone and glockenspiel giving a sense of stars suspended in space (Figure 8).

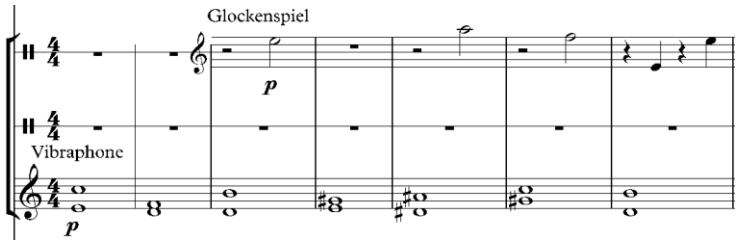

Figure 8. *Kokab (Stars)* measures 1-7 (Keller, 2016)

Breaking through the stillness the brass anticipate the arrival of the sun which comes into full view in measure twenty seven with a fortissimo on an E major chord. The brass parts are loud and full with short rests spread out among the parts so that players can breathe while the ensemble is able to maintain a high level of volume lending to a sense of the sun being both intense and constant.

After the arrival of the sun, the vibraphone and glockenspiel return and transition into the presentation of the moon by the strings and woodwinds. The relationship between the presentation of the sun and the moon holds a reflective property, though it is certainly not a direct reflection. This reflective relationship is seen in the harmonic progressions of the two. The sun first presents its harmonic progression starting in measure 27 (Figure 9).

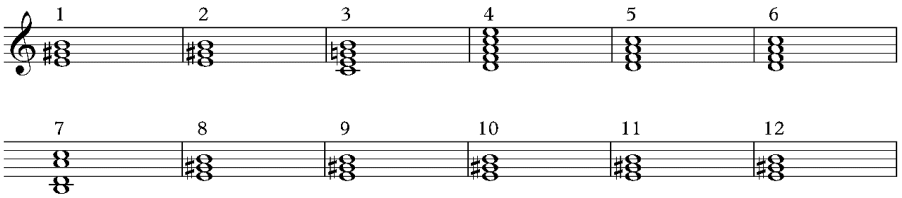

Figure 9. *Kokab (Stars)* chord progression for the sun.

The chords utilized in the progression are tertian in design. While there is no directly functional harmony, the use of tertian chords to a listener automatically brings a sense of normalized structure in music especially compared to the chaos of the first movement. These tertian chords refer to the structure of light sources, astronomy, and physics as we know it. While the earth is not fully complete, the fourth day is the first day when the final physical structures observed from the earth are put into place.

Utilizing all of the same chords as the sun, but in a different order due to a couple utilizations of retrograde to invoke the concept of reflection, is the harmonic progression of the moon, starting in measure 47 (Figure 10).

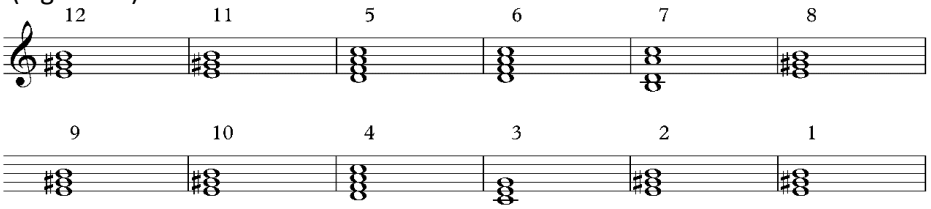

Figure 10. *Kokab (Stars)* chord progression for the moon with numberings for the sun.

The reflection of the moon as a retrograde of the sun is only from the outer chords of the full sun progression with the first four being switched with the last two. This is actually much like the light that physically comes from the moon in that while it is a reflection of the sun the light itself is still the same light traveling at the same speed as that which left the sun. Yet, however descriptive philosophically the reflection of the moon may be represented, the choice of full or partial retrogression was truly one of musical aesthetics.

Movement 5. Tannin eth Oph (Whales and Birds) The fifth movement of Genesis is different from the other movements in that it is designed to mimic the songs of birds and whales themselves, rather than to create a philosophical reasoning behind the compositional choice. The movement is essentially divided into two sections first whales and then birds. It starts with the sound of an ocean drum before the strings enter muted with quintal and quartal harmonies.

In addition, there is also a cello solo backed by various percussive instruments mimicking the sounds of whales. Some of these instruments include the timpani, snare drum, and harp which are played with a friction mallet. This mallet is not used to strike the instrument but is instead drug across the instrument to sound from is friction alone. Another more unique sound is comes from one timpani

having a cymbal freely placed upside-down on the drum head which is then bowed while the drum head tension is altered giving a glissando effect to the cymbal's sound.

At measure 31 there is a break in the harmonies and these whale sounds are allowed to exist on their own. The cello and strings return with the cello rising higher and higher as it seeks the surface of the water where the whale breaks through for a breath as created by the brass emptying out their water. Figure 11.

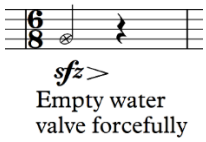

Figure 11. *Tannin eth Oph (Whales and Birds)* measure 53 (Keller, 2016)

This technique is quite unique and grows out of a bit of speculation on the part of the composer. The theory is that with enough brass instruments, the water condensed in the tubes after resting for a longer period of time will cause a bit of a pop when flushed out, increasing the dynamics of the breath sound while also lending to the concept of water in the movement. Ideally it will mimic the sound of a whale breathing after breaking the surface.

The water gives way to the air and the return of the ocean drum. Birds are brought forth by the use of water whistles in the percussion, short figures in the violins, and the "sea-gull effect" in the cello. After some time, a flock of birds is formed by the strings using the same techniques plus dampened strings in the violin II, viola, and bass to sound like the wing beats of a large flock. This then dies off leaving the ocean drum to fade away.

Movement 7. *Shabath (Rest)* The 7th and final movement is the only movement is simply a short period of rest at the end of the entire work in reference to the rest taken by God at the end of His work. The tempo is "vivo" to signify all of the life created on the previous days, but is also given direction with the sixteenth note equaling a quarter note rest. Figure 12.

Figure 12. *Shabath (Rest)*Tempo (Keller, 2016)

This tempo is open to interpretation by the conductor but the musical notation makes a simple gesture of energetic life going at a much slower speed while at rest. Many who hold the biblical accounts to be sacred and therefore the foundation of their beliefs follow the day of rest as described in *Genesis* chapter 2.

The instruments themselves are given a long fermata over a rest, which simply gives the conductor freedom to interpret exactly how long the pause at the end should be. Figure 13.

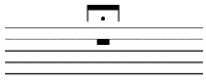

Figure 13. *Shabath (Rest)* Long fermata (Keller, 2016)

This single measure of unmeasured rest is in no way a comment on the concept of silence and our lack thereof as in John Cage's *4'33"*, but is instead a direct translation of the biblical account of God resting. It gives the audience and performers a few moments to reflect on God's creation as well as the piece itself. As to what exactly the "rest" constituted on the 7th day, this is left up to the audience to imagine.

Discussion

As a sacred work, *The Genesis* by Max Keller fits in a historical tradition of Western music directly depicting text from the Bible as composers including Brahms, Haydn, Schoenberg, and numerous others have. While the choice of the specific narrative of creation found in the Bible has been shown

to have been taken up and formed into seminal works by previous artists, it should be noted that the majority of these works rely on either visual or text based depictions, especially in the form of lyrics for musical examples, making the decision to utilize only sounds created by the symphonic orchestra as the primary conveyer of the theological ideas as presented in *The Genesis* unique.

The organization of the work being programmatic and strictly centered around the days of creation and their recorded context is also unique when compared to the Haydn's *Creation* which expands them over multiple movements or that of Michelangelo Sistine Chapel frescos which moved the order around. While there were choices made in *The Genesis* for the sole purpose of musical aesthetic, they are in no way intended to add to the drama or teleological narrative given in the *Book of Genesis.* Most other works also include additional materials not recorded in the Bible itself, as is the case of *Paradise Lost*. This strictness in concept heavily influenced the structure and formation of each movement and the work as a whole. Not conforming to a traditional musical structure allowed the music to be shaped around the events described in the text, which gives a more direct emphasis to the text and makes the musical expressions of specific moments easy for an audience to recognize even without lyrics to verbally describe the scene.

About the Author

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