Feeling like a God
"Creating an ancient Egyptian mythological orchestral suite"

"Feeling like a God" is an orchestral suite depicting various figures of the ancient Egyptian Pantheon. The compositional aspect is oriented towards composers of the romantic period (such as Schubert, Grieg and Beethoven), whereas the overall style of the sound is adapted from contemporary film scores. Huge influences were multiple scores from composers like Ramin Djawadi and Brian Tyler. The suite is located within the modern symphonic music style, which features an ample-sized orchestra and an overall natural sound. The themes are composed for a large symphonic orchestra with additional percussion and choir but are programmed using various sample libraries. The suite is composed to ensure a coherent listening experience, with each theme depicting the characteristics or telling the story of a selected deity. The six deities are Amun-Ra (the creator god), Osiris (god of the underworld), Horus (god of the sky and kings), Seth (god of the desert and destruction), Anubis (god of mummification) and Hathor (god of love). Each track is produced in stereo format and is made to be 3-10 minutes long. Even though each theme had its unique creational process, they all followed more or less a general scheme. After creating an overall sketch of the composition using an ensemble patch library, the orchestration has been elaborated in notation software. Once I had finished the orchestration, the programming of the Mock-Up was achieved inside Nuendo using BBC Symphony Orchestra Pro by Spitfire, Damage 2 by Heavyocity and Olympus Choirs by Soundiron. Each instrument's articulation was assigned to its own track and was edited separately using various MIDI CC messages. With the MIDI CC, I automated different parameters, predominantly dynamics and expression. The mixing and mastering process was held simple, establishing a natural sound. After finalisation, each theme is roughly 3 to 5 minutes long and in stereo wave format. I created several feedback sessions as well as a final survey to determine whether the goals have been accomplished or not. Other aspects of the evaluation process were the suite's coherence and style. On a scale of 1-7 (the higher, the better), the average arithmetic mean was determined to be 6.22, with an average variance of 1.5. The success of the depiction of each deity varied slightly in the survey.

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1. Introduction

In this orchestral suite, six tracks will display six different deities of the Egyptian pantheon. The six deities are Horus, Amun-Ra, Seth, Anubis, Hathor, and Osiris. An example of this would be Gustav Holst's The Planets, though it is not the goal to imitate its style. The style of this project will be modern orchestral music. Since contemporary orchestral music is a broad concept, I will define it as music with an orchestral setting (strings, brass, woodwinds) with many percussive elements. Despite straight orchestral music, it is not uncommon to process each piece in cinematic music with effects. However, it is not the goal to create an artificial orchestral suite, nor a straight realistic one. Instead, the goal is to create a modern-sounding orchestral suite. These can be described as compositions related to the classical and romantic symphonic era, with a modern type of sound. The final mixes are going to be in a stereo wave format. I will do an up-mixing for a 7.1.4 Dolby Atmos format if time allows. The length of each piece will be around 3-10 minutes. This orchestral suite is for people who like to listen to orchestral or cinematic music or are familiar with Egyptian mythology. I have been fascinated by Ancient Egyptian mythology since I was a child. During my study at SAE Institute, I got into composition and orchestral music in general, which led to the decision to do an orchestral suite as a bachelor thesis. Firstly, these themes will be included in my portfolio. I will upload them onto multiple streaming services and market them to gain public attention. Secondly, I will integrate these scores as thematic material into a show still under development — the show centres around the myths of Atlantis and several nations (e.g. Greek and Ancient Egypt). To sum up, I have listed my goals in the list below:

Must-haves	Nice to have	Not my goal
6 separate tracks, but a coherent listening experience	Dolby Atmos (7.1.4) mix	live sounding orchestra
Modern symphonic orchestra		Overly processed Trailer-type sound

Fit the characteristics of the deities		Differentiate between the deities in the tracks
Stereo, 48kHz, 24-bit		Egyptian style music
3-10 Minutes each		
Realistic sounding		

2 Research

2.1. References

There have been several approaches to composing an ancient Egyptian soundtrack. For example, in the video game Assassins Creed Origins, Schachmer composed an old Egyptian-influenced soundtrack (2017). Another example of a similar approach would be Fiechter's music: they also wrote theme tracks for Egyptian deities (2016). On the contrary, one can compose themes for Egyptian deities utilising the western style of music. In his score to the movie "Gods of Egypt", Marco Beltrami mainly used the modern orchestra instead of limiting his sound palette to ancient music/instruments (2016). In my project, I will take a similar approach as Beltrami did. The suite is focused on western musical concepts. Here I want to list some general references regarding this suite. Specific references regarding each track, if there is one, will be listed in chapter 3.3. The overall sound of this suite shall be of a modern symphonic orchestra, for example in:

- Jack Sparrow's theme by Hans Zimmer (2006),

- Game of Thrones Main Title by Ramin Djawadi (2016)

- Scores by Brian Tyler (2017).

A considerable guide for this is the Game of Thrones soundtrack. In the overall soundtrack of the Game Of Thrones Saga, certain elements seem to stick out. The core elements of the soundtrack

are the use of percussion, strings (especially the solo cello), ethnic winds (such as the Duduk), and the Cimbalom (cf. Osicki, 2019). I will also feature the Cimbalom in my composition but disregard other ethnic instruments. For the compositional aspects, I have chosen composers from the romantic era, like:

- Franz Schubert (1984)

- Edward Grieg (1997)

- Robert Schumann (1980),

- Ludwig van Beethoven (1989),

- Hector Berlioz (2009)

What sticks out to these compositions is that they are very melody-driven and lyrical in style. The compositional style of the Romantic period was more complex in harmony, rhythm, melody, timbre, and form compared to the Classical era. Despite this, the orchestra's size grew dramatically to around 100 musicians compared to the Classical period (cf. Thomas 2021).

2.2. Composition

2.2.1. Music and Emotion

Even though one can argue that music and human emotion are linked, there is no scientific evidence that certain types of music relate to certain emotions (cf. Armony and Vuilleumier 2013: 288). Most of the emotional experience of music depends on the cultural background of the suspect (cf. Egermann, 2014). Nevertheless, in the western music culture, one can witness specific patterns used to evoke a desired emotional response. For example, at the beginning of Beethoven's 5ths Symphony, the high dynamic, short rhythmic intervals, and low voiced instruments create a certain tension and anger. This pattern can be observed on multiple occasions. Another typical pattern for happiness is a fast rhythm, skip-wise melodic motion, high-pitched voic-

es, and a loud dynamic, whereas the opposite can evoke sadness (cf. Egermann, 2014). Since these criteria may also provoke anger and tension, it is better not to classify musical emotions as both happy and sad but as high and low arousal (energy). Apart from that, the way of voicing and spacing chords within a choir of the orchestra can affect the mood as well (cf. Adler 2016: 274). A more dense spacing tends to sound darker than a wider voicing of the same chord. Another aspect of music, which, unlike emotion, is more ubiquitous is the aspect of energy. In his book, Newhouse describes certain energy-related aspects of music (2020). He states that aspects like a high tempo, shorter notes, larger instrument section sizes, faster harmonic rhythms, and more frequent modulations favour high energy and vice versa. Another way of creating a certain mood is through harmony and, thus, the use of modes.

2.1.2. Modes
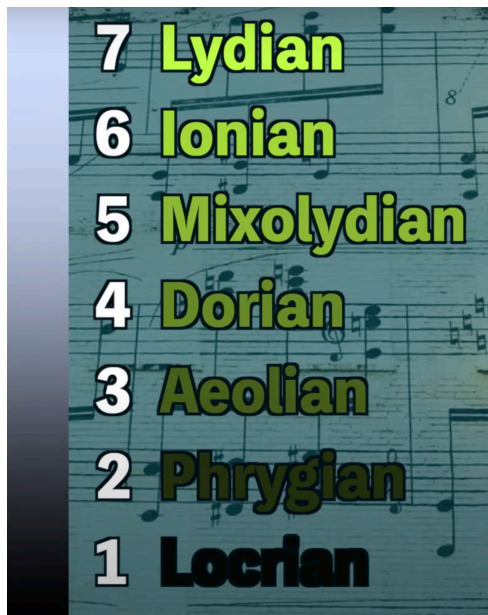
Figure 1: Modes listed from brightest (7) to darkest (1) (Leach, 2021)

There are seven musical modes whose distinctive characteristics can be utilised to achieve a certain feeling. Music theorists divide these scales into two subcategories: major and minor scales. Ionian is the modern major, and Aeolian is the current minor scale (cf. Dunnett, 2019). The Dorian is very similar to the natural minor (aeolian) scale, with the only exception being the sixth scale degree, which is raised to the major sixth above the tonic. Like the minor scale, people associate it with a sad sound. However, due to the raised 6th, it comes with a more uplifting sound compared to the minor scale, resulting in the sense of hope (cf. Leach, 2021). The Phrygian mode is similar to the natural minor mode, though it has

a minor 2nd rather than a major 2nd. Compared to a minor scale, the lowered 2nd gives this mode a much darker and tense flavour (cf. Farrant, 2020). The Lydian scale is a major scale, with its only difference from the Ionian scale being the 4th scale degree, which is an augmented 4th from the tonic. It has a much brighter and heavenly feel than the major scale (cf. Leach, 2021). The Mixolydian scale distinguishes itself from the Ionian mode by its 7th scale degree. In Ionian, the 7th scale degree is a major 7th above the tonic (being the leading tone in the scale), whereas in Mixolydian it is a minor 7th above the tonic. Compared to the major scale, the Mixolydian scale provides a smoother and less happy sound (cf. Dunnett, 2019). The Locrian mode is either major or minor. Even if its 3rd scale degree is a minor, the 5th degree is diminished instead of perfect. It is regarded as the darkest of all modes. It creates an unstable and tense sound. The feelings created by these modes are observations from most people and are not scientific facts as they can vary individually (cf. Farrant 2020).

2.1.3. Instrumentation

The instrument groups in an orchestra are the string, woodwind, percussion, and brass family. Each section consists of different characteristic instruments, each varying in quantity. Each family's size depends on the composer's era (cf. Rasmussen and Laursen, 2014). I orientate myself towards the symphonic orchestra during the romantic period: Whereas the Brass family comes in groups of 3 or 4, the woodwinds are usually in groups of three. The string section consists of 16 1st violins, 14 2nd violins, 12 violas, ten celli, and eight double basses (cf. Thomas, 2021).

2.2 Ancient Egyptian Mythology

The ancient Egyptian civilisation was based upon polytheism, which means they worshipped many gods and goddesses. Due to Ancient Egyptian history being based on various tribes, many depictions of the pantheon exist, which may differ from each other. Furthermore, with each royal

dynasty, the relations and roles of the deities shifted. Also, it was not uncommon for Gods to merge. For my thesis, I use the most common explanations (cf. Mark, 2016). The five being broached in this thesis are:

2.2.1 Amun-Ra

Regarding "myths and legends, the most common theme in creation across cultures is the will of a creator god who separates the earth from the heavens, shapes the land-scape, and creates people from clay, twigs, sweat, or even his fleas. In ancient Egyptian mythology, this god was Amun", the divinity who brought himself into existence and followed the creation of every single thing in the universe (Pinch, 2002, p. 100). Unlike the other vital deities, Amun does not seem to have been thought of as living in some distant celestial realm. He was everywhere, unseen but felt like the wind. In the new kingdom, the cult of Amun was over time with those of other deities, particularly that of the sun god Ra. Becoming Amun-Ra, he was worshipped as the king of the gods and creator of the world and its inhabitants, earning the name Nebucha (the lord without limits) (cf. Pinch, 2002). Being a member of the Ogdoad, he is also shown with the snake's head. He was revered to this form at Thebes with attendant connotations of immortality and endless renewal. Amun-Ra became revered as a self-created transcendental deity who maintained his secrecy and became known as the life force within everything, including gods. He was considered unfathomable by any other being, mortal or divine (cf. Rosicrucian Egyptian Museum, n.d.).
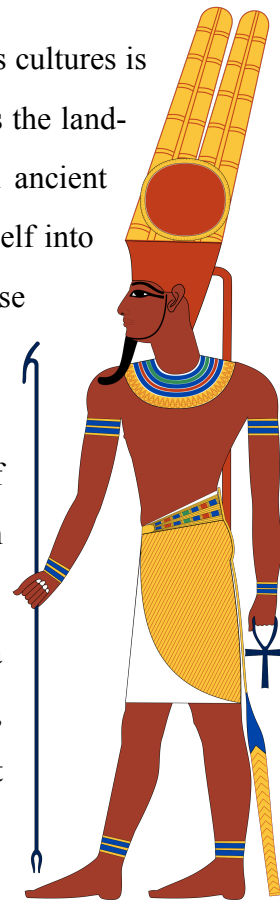

Figure 2: Amun-Ra (Dahl, 2022)

2.2.2. Seth
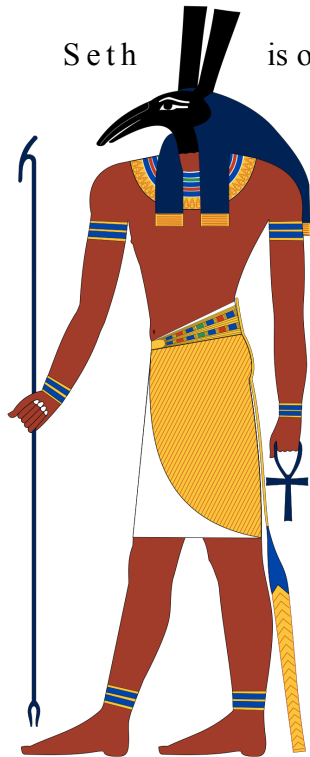
S e t h is one of the most famous gods in Egyptian mythology. The brother of Osiris personified violence and destruction and was considered a mischievous god. Seth was the lord of the deserts, infertile lands, thunderstorms, eclipses, and earthquakes. He was a mighty and frightening deity (cf. Rosicrucian Egyptian Museum, n.d.). In the Osiris myth, he murdered his brother to take his throne and become king. Osiris' son Horus avenged Seth in a long fight, from which Horus emerged victoriously. Seth's immense power, though, was being acknowledged by the gods and considered too significant to be wasted. The gods decided that Seth would sail along with Ra protecting the ladder from the terrible Apophis serpent. Seth's action was attached to the destruction of crops, hunger and thirst, massive heat, and droughts. The day of Seth's birth was considered to be a day of bad luck. Although defeated and rejected, Seth's incredible power and influence within the ancient Egyptian religion are undeniable (cf. Pinch, 2002).

Figure 3: Seth (Dahl, 2022)

2.2.3. Horus

Horus is the god of the kings and the sky. He is a god depicted as a falcon, whose left eye was the moon (or evening star) and the right eye was the sun (or morning star). He is regarded as Egypt's most powerful god, which he earned by defeating his uncle Seth (cf. Zelazko, 2022). People believed that the Pharaohs were descendants of Horus himself, which

Figure 4: Horus (Dahl, 2022)

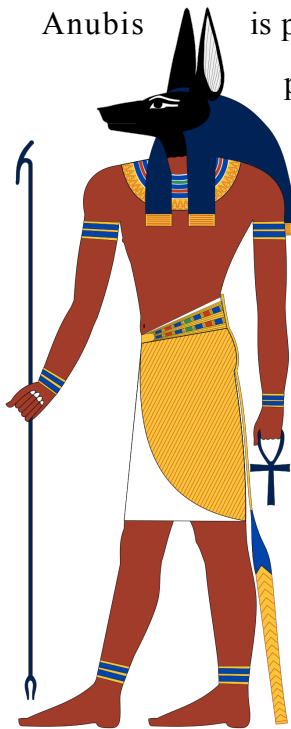is why the most important of a king's names was his Horus name (the name identified him with Horus) (cf. Pinch, 2002). In addition, he played a significant role in the Osiris myth, which is further explained in the appendix.

2.2.4. Anubis

Anubis is probably the most recognisable god in the Egyptian pantheon. He is often depicted as a man with a head of a jackal. He is regarded as the god of the afterlife (which he later assigned to Osiris) and mummification. Even after stepping down the throne of the underworld due to respect to Osiris, he maintained a crucial role: helping guide the source through to the afterlife (cf. Rosicrucian Egyptian Museum, n.d.). Anubis is a highly unselfish god who cares not for glory or status and is devoted to his task. This is visible when he allows Osiris to become the ruler of the underworld, as it does not affect his ability to protect and help the dead. Anubis was always represented in black, a colour symbolising rebirth, the fertility of the Nile river, and the discolouration of bodies after the embalming ritual. Anubis is often depicted guiding individuals across the threshold of the living world to the afterlife and was heavily worshipped because he gave people hope despite modern beliefs (cf. Pinch, 2002).

Figure 5: Anubis (Dahl, 2022)

2.2.5. Hathor

Hathor was one of the goddesses with significant importance in Egyptian mythology. Hathor was a primary deity with a benign motherly nature who helped women to give birth, the dead to be reborn and the heavenly cosmos to be renewed (cf. Pinch, 2002). This complex figure was even-

tually considered the primeval being from whom all other goddesses were derived. Therefore, several female divinities mentioned in later myths came to be regarded as names of Hathor in her contrasting benevolent and destructive aspects (cf. Rosicrucian Egyptian Museum, n.d.). The goddess Hathor was the female creative principle personifying love, beauty, and sexuality. This erotic side of her nature associated with the erotic aspects of music and dance makes her devotees' lovers in Egyptian poetry. As the wife of Horus, she was regarded as the mother of the Pharaoh and the protector of the women (cf. Rosicrucian Egyptian Museum, n.d.).
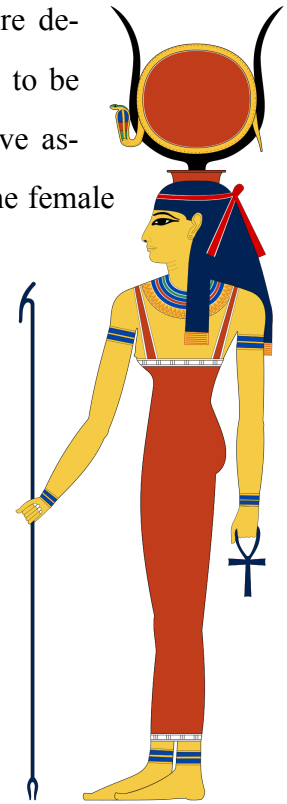
Figure 6: Hathor (Dahl, 2022)

2.2.6 Osiris

Osiris was the eldest of four siblings: his sister and consort Isis, his sworn enemy Seth and his younger sister Nephtys. Osiris has long been considered the chief of the Egyptian gods, who later took over the role of king of the underworld and ruler of the dead. First mentioned in the fifth dynasty, he was first portrayed as a fearsome god, then transformed into a benign deity over time. He was the first king of the upper world and earned the name "wenenapher" (meaning he who is eternally perfect). The early kings of Egypt were the divine embodiment of Horus in life but were believed to become Osiris in death. The ritual of mummification allowed the deceased to be identified with Osiris. Osiris lived on and became the underworld's lord, a role granted to him by Anubis, and he started to be shown as a mummified king (cf. Pinch, 2002). His role in the Egyptian pantheon can be summarised in his position in Osiris's myth: Osiris ruled over a prospering
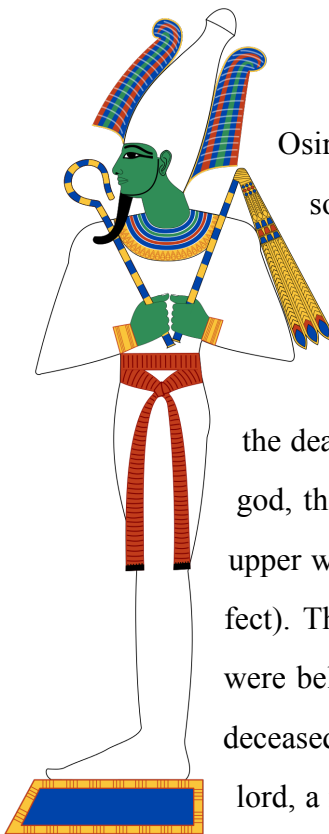
Figure 7: Osiris (Dahl, 2022)

Egypt. His jealous brother Seth murdered him and thus became king. With Anubis's help, Isis regained Osiris's body and returned him to life as the first mummy (cf. Zelazko, 2022). An interested reader can find a more detailed explanation in the appendix.

3. Methodology

3.1. Starting the Composition

Before attempting the composition, I must study particular process' aspects. An essential factor is the study of composition. For this, I will utilise Belkin's book "Musical Composition" (2018). For the orchestration of the themes, I will focus my study on the literature of Samuel Adler's "A study of orchestration" (2016) and Caplin's "Analyzing Classical Form" (2013). Another great asset is the study of counterpoint using Denisch's Contemporary Counterpoint (2017). Despite studying college literature, I will examine the scores mentioned in chapter 2 and other scores by the corresponding composers. The score study primarily consists of reading the scores while listening and analysing the use of different sections, but most importantly, the voicing of each section and instrument. I utilise multiple scores, such as

- Ludwig van Beethoven's 5th, 6th, and 7th Symphonies (1989),

- Gustav Mahler's 1st and 2nd Symphonies (1987),

- Mussorgsky-Ravel's Pictures at an Exhibition (2016)

- Tschaikowski's 5th Symphony (2010),

- Hector Berlioz's Symphonie Fantastique (2009),

- Gustav Holst's The Planets (1996),

- Agapkin's Farewell of a Slavic Woman (1912).

For the compositional craft, I will study the scores mentioned above, but also scores like:

- Franz Schubert's 9th Symphony (1984),

- Edward Grieg's Peer Gynt Suite (1997),

- Johann Pachelbel's Canon in D (2022),

- several symphonies of Robert Schumann (1980).

3.2. Realising the Composition

There are many ways to create such a suite: I could use notation Software such as Avid's Sibelius or start directly in Nuendo, my DAW of choice. In my workflow, I will switch between both, depending on the individual process. For example, I will start directly in Nuendo when creating rhythmically driven sections. Whereas, when sketching out melodies and harmonies, using Sibelius would be more beneficial since it is easier for me to work with notation in these situations. I can quickly transfer projects from one to the other via the MIDI import and export. I will utilise the notation program Sibelius for the final orchestration of the sketches into fully arranged pieces. When choosing a sound palette, there are many ways to limit myself. Since I cannot access a real orchestra, I will program everything inside Nuendo via MIDI utilising orchestral sample libraries. The orchestral sample libraries I will use are Spitfire's Albion One and BBC Symphony Orchestra Professional. Albion One is suitable for sketching out ideas since it mostly features ensemble patches. However, BBC Symphony Orchestra offers various single instruments, which will come in handy after I complete the orchestration process. Furthermore, its wide variety of microphone positions will aid me in the final mixing stage. Because of that, and the fact that it is the library I started with, I chose those libraries. For the percussion section specifically, I will use the Damage 2 library by Heavyocity. Another alternative to Damage 2 I considered is CinePerc by CineSamples. Both have distinctive and different sounds: whereas CinePerc is more orchestral-focused, Damage 2 sounds more hybrid, which is why I chose Damage 2. In addition

to that, I will use the Olympus Choir library from Soundiron. This choir library has a certain heavenly and ethereal feel to it when compared to other choir libraries.

3.3. Planning the themes

The scores will remain orchestral to ensure a coherent feeling of the score. The sections will be of a contemporary symphony orchestra, with a more extensive percussion section. Below I describe some initial ideas I will start the compositions with. Even though I mention specific keys or scales, they may later change and modulate within a track. References for my project have been elaborated on in chapter two. I will have explicit references for some of the themes listed below.

3.3.1. Amun-Ra

Since Amun-Ra represents the entity of being and is everywhere, his theme should be powerful in general. It should start small and slowly rise to a big tutti at the end. This shall reflect Amun-Ra, as he created himself out of nothing and became everything. This theme will build itself up. Characteristic for this theme will be a string ostinato, like in John Williams' Duel of the Fates from the Star Wars score. The overall structure with the rise to the tutti and the tutti itself shall be like the Jack Sparrow Theme by Hans Zimmer (2006). The primary key will be in the Aeolian scale as well as the Lydian scale.

3.3.2. Seth

Since Seth represents chaos, this theme will have a dark yet powerful feeling. A 3/4 meter, low register instruments, and a percussion-driven beat will achieve that. A good reference for the percussion will be "Wrath of the Lich King" by Brower, Duke, and Stafford of the World of Warcraft soundtrack (2008). Especially the use of the anvil, low brass, and the choir are significant. I chose

the Phrygian scale due to its associated darkness. I do not want to use the Locrian mode since even though Seth is regarded as the god of chaos and destruction, he still has some good deeds.

3.3.3. Horus

Since Horus was regarded as the king of Gods, I want the main section of this theme to be a march. I grew up listening to Russian music as a composer of Russian heritage. Therefore, I draw my inspiration for this march from a famous Russian march: Farewell of a Slavic woman by Agapkin (1912). What characterises the march is mainly the rhythm (the characteristic use of the snare), the harmony, and the orchestration (predominance of the higher brass instruments). Apart from the march, I want Horus' motif to develop. For this theme, I choose the Lydian (for the motif) scale and the Ionian scale (for the march). The associated heavenly feel of the Lydian scale is set to depict the god of the sky.

3.3.4. Osiris

This theme shall represent not only his attributes but also his life in some way: a highly beloved king, suddenly murdered by his brother, mummified by Anubis as the first mummy, and later reincarnated as the lord of the underworld. This theme's structure shall represent his story. The first part will be in an odd meter and very minimalistic orchestration. For this, I chose a 5/4 meter, as in for example Mars in Gustav Holst's The Planets (1996). The sudden murder by his brother will be represented by a sudden change, featuring the Dies Irae motif in the brass, as in Hector Berlioz's Symphonie Fantastique movement 5 (2009). I will transition into a more powerful and dense section with this death motif. The major mode I chose for this theme will be the Aeolian mode.

3.3.5 Anubis

This theme is going to be a dark one. Warcraft by Ramin Djawadi (2016) is a vital reference for this piece. Primarily because of its orchestration and triplet feel. Even though Warcraft is in 4/4 with eighth note triplets, I will compose in a 6/8 meter. This compound meter will create a feeling of unease and mystery. As in Warcraft, the brass section will play a massive role in this theme. As the most prominent mode, I choose the Aeolian mode. The Phrygian mode would create a feeling which would be too dark.

3.3.6. Hathor

I will feature a grand piano to set this piece apart from the others. I want this theme to sound both powerful and prominent, as well as romantic and light. Some references for this piece would be Pachelbel's Canon in D major, especially for the romantic part (2022). The stepwise descending bass line achieves a romantic and melancholic feeling. The scales I want to utilise are the Dorian scale and the minor scale. Despite the romantic and light introduction, I also want to depict her wilder side. A busier and more dense orchestration in the middle part will do this. The piece's Coda is intended to be the final ending of the whole suite, so I want to arrange it accordingly.

3.4. Post Production and Finalisation

I will not use too much processing to achieve a modern orchestral sound. For the mixing process, I will start with one track, which I will save as a template. With this Mixing template, I will begin the mixing process of the other tracks so that they won't differ too much in sound quality. Since my goal is to create an orchestral suite and not just six separate tracks, I will have to think about the track order to create a cohesive and exciting listening experience. In addition, the mixes

should not differ too much, even though these are six separate tracks. Therefore, although each mix will be individual, they will follow the same template, enhancing the coherent listening experience.

3.5. Evaluation

I will need to evaluate the progress several times throughout the composition, production, and mixing process. To do so, I will take interviews and polls. I will do these occasionally during the composition process to a small degree and at specific points throughout this process to a greater extent. In addition, occasional polls will be with professionals in my circle of friends and family. The more significant evaluation points are described below.

3.5.1 Survey

After the composition and the production of the themes are finished, I have to evaluate my results. My method of choice will be doing a survey. Within this survey, I will determine the kind of participants, like whether they are familiar with musical composition and what genre they feel comfortable in. The musical background will also interest me, yet I want to cover this aspect superficially. Further, I will present a few characteristics of the deities as they listen to the tracks. I will not list any goals or references for the compositions since I want unbiased feedback. As it is not my goal to differentiate between the deities in my tracks, I will present each successively. The possible answers provided shall be on a scale from 1 to 7 to have a significant evaluation. I chose the scale from 1-7 since this gives the possibility of a neutral answer (4) and the positive/negative answers are equally weighted. The questions asked will be

- "Does this theme represent the deity accordingly?",

- "Does this sound like modern orchestral music?",

- "Does the listening order make sense?"

- "Is the listening experience coherent?"

I will do this online to gather enough data via a survey service. Information of interest will be the arithmetic mean $\bar{X}$ and the variance σ^2. Since the scale of the answers ranged from 1-7, these are the limitations of the arithmetic mean, which is calculated as follows:

$$\bar{X} = \frac{\sum_{i=1}^{n} x_n}{n}.$$

The variance is a measure of dispersion. It is defined as follows:

$$\sigma^2 = \frac{\sum_{i=1}^{n} (x_i - \bar{X})^2}{n}.$$

x_n is the provided answer and is thus defined as $\{x_n \in \mathbb{N} \mid 1 \leq X_n \leq 7\}$ with n participants (Arens et al. 2013). I will filter the results according to the participant's time spent filling out the survey. The survey host provider will record this metric. If the participant spends less than 5 minutes in the survey, I cannot evaluate their answers properly. This is because listening to the themes is a crucial step in the process.

3.5.2 Interviews

I will make most of the more minor evaluation points with informal interviews. These will be done with my mentors of choice concerning the different subjects. At specific points during the composition process, I will talk back to my musical mentor and discuss the status quo and progress. This will happen many times throughout the compositional process. I will consult different people with expertise in each field during the production and mixing process.

4 Realisation

4.1. Preparation

Before I composed any music, I collected different literature and studied composition. The two main topics for me were composition and orchestration. I took several online courses on Udemy for composition, where I learned more about melody writing and development, harmony, and musical form. The book "A study of orchestration" by Samuel Adler has been a great asset for me since it covers every aspect of the orchestration process in great detail and focuses on the classical period of music. Using this book and other literature, I have created a board of orchestral instruments and their characteristics, which comes in handy during the orchestration process (figure 8). Apart from the university literature regarding orchestration, I have spent quite an amount of time score reading and listening to classical music. For this, I have purchased the full scores of
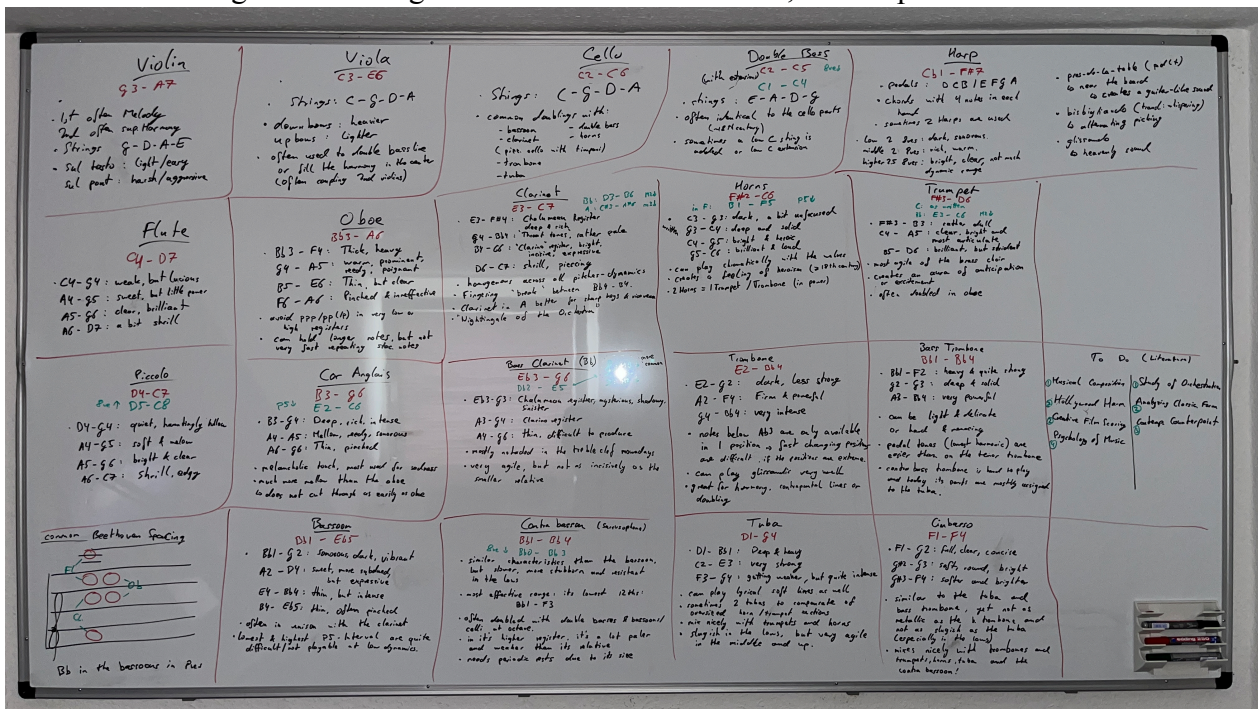

Figure 8: *Orchestral Instrumentation Chart (self-made)*

several symphonies. While studying the different aspects, I sketched out ideas using Sibelius. Besides developing the crucial initial skill-set, I also started to spend time developing other skills I will need later on during the process, like mixing and mastering and realising a MIDI mock-up. YouTube has been an excellent resource for me regarding these aspects. I have watched different tutorial series for mixing orchestral music, most commonly the channel of Joel Dollie, a well-reputed and recognised mixing engineer in that field. Another great resource has been Marc Jovani and his company, Cinematic Orchestration, where he shows different approaches and tips concerning MIDI mock-ups of orchestral music. Nevertheless, just studying the theory is not enough. I also spent nearly an hour daily working on my ears, both technically and musically listening on Soundgym and Tonegym, respectively. Another big topic I needed to study before starting was the ancient Egyptian pantheon and the roles of each deity. The research was complex since many different resources stated different facts, and often divinities combined, creating more Gods. I had to decide which mythological story I wanted to follow. For studying the ancient Egyptian pantheon, I used several works of literature, documentaries, and other online resources.

4.2. Composing the themes and developing an arrangement

After I had a clear vision of the Egyptian pantheon, I had to figure out how to incorporate it into music.

4.2.1. Starting the composition and arrangement

Each theme has its creative process. I have listed a detailed overview of the creation process of each composition in the appendix under "Theme development". A common practice, though with some exceptions, for me was to start with the notation inside Sibelius and work out a rough

arrangement in Nuendo later. An interested reader can find some initial demos in the attached "Interim/First Sketches" folder.

Amun-Ra

The initial idea I started with was to compose the same musical content within two different emotional settings. The first part is very minimalistic and only within the woodwind family. The composition here is based upon counterpoint and does not feature direct harmony.

Figure 9: String Ostinato from Amun-Ra's Theme

For the second part, I have established (after some trial and error) a harmonic line that goes i-VI-III-VII in the key of Am at first). I have thickened the arrangement by adding string ostinatos, rhythm, and brass sections. After a short informal evaluation by some friends and my mentor, I decided to layer a couple more instruments in the first section. I've also developed the arrangement and the melody, though I have not yet finished it.

Horus

Figure 10: Horus' Motif

The first draft consists of two very similar parts, musically speaking. Both have just been orchestrated differently. The harmonic progression is I-II-III-II in F Lydian. Whereas the

first part features woodwinds, the second part takes advantage of all the other orchestral choirs (except for the woodwinds). I also induce a march-like feeling by using triplets on the snare.

Seth

This theme started inside Nuendo. I worked out the initial dark atmosphere according to plan, e.g. low strings and brass play a considerable role, Phrygian is the mode of choice, and it is very percussion driven. So for now, the piece is written in G Phrygian. The feedback I received from my mentor was mainly positive, which resulted in no significant change in the thematic material of the intro.

Anubis

As Seth's theme did, Anubis' theme started in Nuendo. After some trial and error, I laid down a rhythm in 6/8 with some low strings ostinatos according to plan. Two main melodies with the antecedent phrase in the high strings and the consequent phrase in the woodwinds accompany the rhythm. The rhythm section consists of several low percussion instruments layered and interlocked to create a cohesive and driving beat. After showing this sketch to my mentor, we decided it went in the right direction and developed this theme further. We only made a few little adjustments to the arrangement of the melodies.

Hathor

The initial idea for Hathor's theme is composed using the Ionian scale (here: C major). Though the harmony of the first section is I-vi-IV-V7, it is written using the principle of counterpoint. After showing my draft to my mentor, many things changed, yet the core concept remained. The main things that changed were the orchestration of the melodic counterpoint lines and the textural

background, where I added ostinatos in the harp. I also added a percussion section at the end of the draft/first section to transition into the next transition.

4.2.2. Finalising the sketch

Once I notated a short sketch inside Sibelius, I wanted to realise and develop this in Nuendo. For this process, I utilise Spitfire's library Albion One, which is perfect for sketching since it features ensemble patches. At first, it is necessary to export the arrangement via a MIDI format file and import it inside Nuendo. The next step is to assign each MIDI track to its specific instrument. To simplify this process, I have created a production template in Nuendo. An important step is to divide each melodic line among the appropriate articulations and program parameters like dynamics, expression, volume, vibrato, and release via MIDI CC data. Once I translated the composition from Sibelius's notation to Nuendo, I could start working on the arrangement of each track individually.

Amun-Ra

At this stage, I ended up with a more sophisticated arrangement with three different main sections. Section A is the initial intro, mainly featuring woodwinds. Section B is a denser theme arrangement, which builds up power until it reaches its climax right at its end. I have also roughly developed an arrangement for the percussion here. In section C, the energy level drops, and the theme rebuilds itself until it reaches its Finale, a much denser and more energetic version of section B. Also, I have experimented with the choir and transitions, as scale runs in the woodwinds, though I have decided not to use them. This was also in line with my mentor since these were too distracting from the overall arrangement. Utilizing Nuendo's transposition tool, it was an easy task to transpose the entire arrangement by section, so I could effectively experiment with the key

of the track. I ended up transposing the A section down a semitone and the C section down four semitones.

Horus

After developing the melodic theme, I ended up with an arrangement roughly representing the life of Horus: The rise of a king (Section A), the fall due to Seth and the ultimate rise (Section B), and the win upon Seth after regaining the initial strength (Section A / Finale). The Finale is a more energetic version of the A section. This state is in early development and needs lots of further improvement. First, I developed multiple versions of the melodic theme utilising various techniques for melodic development. Second, I experimented with the overall key structure of the piece. After some trial and error, I ended up with a whole step-down transposition of the B section. Thus entering section B feels like a drop in energy, and getting into the Finale at the original key (a whole step higher) feels uplifting.

Seth

I ended up with three main sections regarding the arrangement, which go as follows: Intro − A − B − A (Reprise) − C − A (Reprise/Finale) − Outro. Section A is the initial idea in its central arrangement, getting bigger and denser with each repetition. The main compositional element in this section, as it is in this piece overall, is the use of ostinatos. The descending brass melody/riff gives the theme its distinctive Phrygian character. Also, the percussion initiates with a high energetic rhythm, focusing on low drums. Section B is a slight alteration to section A: some elements have been dropped out, and a choir has entered. In section C, the energy drops by thinning out the orchestration. Along the passage, parts are joined back to prepare for the big Finale, again an alteration of section A. Once I discussed the progress with my mentor, we concluded this piece was

going in the right direction. Nevertheless, I was not completely happy with the key it was in. So I experimented with the key and ended up transposing the whole cue a step down to F Phrygian.

Anubis

The sketch is very percussion-heavy yet features a simple rhythm. The scale I used is F Aeolian. I decided on F Aeolian due to the low strings staccato motif: I wanted it to be in its very low register (for the dark timbre), yet the lowest open string is tuned in E, which would be too resonant for my taste. The Aeolian character is presented by the melodic line in the woodwinds here.

Hathor

During this stage, I failed to work out a sketch I liked. Instead, I worked out the second part of the theme, which was musically identical to the first but orchestrated differently (similar to "King's Arrival" from the Game of Thrones Soundtrack). However, I did not use this since I did not feel it was suitable for this theme. I wanted this theme to be more complex and have more variety than this approach would contribute.

4.2.3. Working out an arrangement

Once the sketches are complete, I export them via MIDI and set up a new Sibelius file for each track. Given the notation of the arrangement, it is easier for me to arrange the track and try out different orchestral colours (combinations of instruments). Here I worked out the arrangement, orchestration, and also compositions of each piece. It should be noted that the arrangement for the percussion at this stage is a temporary draft since the translation from Sibelius to DAW is not well implemented. This is because each percussion library uses its specific key mapping. Hence, I will compose the rhythm section at the next stage. Apart from that, I divided each score into multiple figures, which is a common practice in classical music. These figures do not have to corre-

spond to the previous subdivision. During this stage, I also added a new theme: Osiris Theme. The scores can be found in the Notation folder.

Osiris

The track for Osiris came in later. At first, I did not plan this track, but since I postponed the release and the due date for my thesis, I felt I had enough time to compose another theme. Osiris was the ideal candidate for the additional track due to his position within the Egyptian pantheon. This theme starts in a mysterious mood, enhanced by the 5/4 meter and slow pace. The motif firstly presents itself in section B, which in its accompaniment is exactly as in figure A. In figure C, the musical ideas change their instrumental groups, e.g. what was played by the strings earlier is now being played by the woodwinds. Section D is where the theme is about to change with an abrupt halt, different meter changes, and the entrance of the brass, which hasn't been heard before. Using the brass, I quote the Dies Irae motif. With the transition of figure E, we hear the entire orchestra play in section F, which feels faster-paced and more energetic. In figure G, the melody and main idea remain the same, though the harmony changes to an I-V-I-V progression. It is followed by a solo for the percussion (figure H). This should be the track's climax before dropping the energy level (figure I). Section I follows two repetitions of the melody, transforming from minor to major, thus creating an uplifting feeling. Together with the last section (section J), this depicts the "resurrection" aspect of Osiris. Section J mainly features the woodwind family, with minor alterations in the background (e.g. male choir in the basses, muted horns enhancing the melody in pp).

Seth

Since my mentor and I were pleased with the way Seth's theme turned out to be, I did not change much during this stage. Despite minor changes, I have added two new figures to the arrangement.

Figure G presents a melodic line in the low strings, brass, and woodwinds, and figure I ends the piece as a Coda. In figure I, I build up tension and resolve it at the end with a restatement of the initial motif. This motif is prominent throughout the piece, and I changed every couple of repetitions slightly, so it would not sound boring. Despite changing the repeats of the Phrygian motif, I changed the rhythm of the ostinati in the background and made them feel more energetic and less stagnant. Even though I would like to add a new figure with new musical content to the arrangement, this arrangement at this stage feels like it is finished to me, my mentor, and consulted friends.

Hathor

Since I did not like the arrangement, I started orchestrating and arranging the initial composition again. The piece begins with a romantic harmonic progression, referencing Pachelbel's Canon, in

Figure 11: Hathor's 2nd motif

C major in figure A. Next, the melody is presented and developed in figures B and C, respectively. Figure C is almost identical to the initial idea I started with. With figure D as a rhythmical transition, we start depicting Hathor's wilder side in figure E. Since Hathor had a wild side but was not evil, I did not want her theme to sound too dark or evil. The result was the choice of the Dorian mode for the next part of the composition, though the tonic remains. This figure presents the melody in an interplay between the brass and the woodwinds, accentuating the Dorian character. Figure F functions as a bridge. With the development of a new melody and its arrangement, this figure resolves into figure G, which is an altered restatement of figure E. In fig-

ure G, the melody and harmony sound more affluent and developed than in the first statement. The subsequent two figures function as bridges as well. Figure H is a 4-bar phrase played in the brass choir, which modulates to the new key of Bb minor in figure I. Though figure I is just playing tutti chords in a seemingly random rhythm. In figure J, we finally hear the grand piano again, which is silent since fig. A. Figure J is an 8-bar phrase decreasing in dynamic and arrangement. The accents on each downbeat provide some urgency and energetic momentum, whereas the arrangement's soft tone, colour and timbre contrast that, similar to Hathor's personality.

Anubis

At this final stage, the harmony is established into an I-VII-II-III progression, here in the key of F minor. Figure A, B & C are what I ended up with at the last stage inside Nuendo, with minor changes. Figure D presents the melody ending in a percussion solo (fig. E). After the solo, the previous figure D gets repeated with minor changes in the arrangement. In figure G, we modulate from F minor a minor 3rd up to the key of G# minor. The new harmonic progression is I-vi-I-V7. The melody is now an interplay between the strings and the brass. The arrangement gets broader and more prominent at the 2nd repetition of the 8-bar phrase. With a transition of 2 bars (fig. H), the main idea of figures D and E repeats, this time louder and with a broader arrangement. In the Coda (fig. J), we rise from the notes C4 to C6 with increasing dynamics and arrangement, resolving in low strings playing octaves. In consultation with my mentor, we added a few embellishments and especially some textural elements in the arrangement. Overall, though, we both were happy with the result.

Amun-Ra

When I translated this track into a notation, I showed it to my mentor. We both were pleased with it. Despite some minor issues, the arrangement remained the same. One of the most significant

changes I made was the arrangement on the Finale/figure F: To inject more momentum, the instruments providing harmony now follow the main rhythm instead of playing long sustained notes. Also, the arrangement of the brass and woodwind choirs got thicker and more complex. Despite this, for it to feel less predictable and more interesting, I have syncopated the main melody slightly and changed the harmony at the repetition. Apart from that, figure E was added as a transitional phrase. This replaced the initially composed transition. Another change in the final arrangement is the addition of the Coda (fig. H). The Coda is simply the string ostinato from before with some percussion instruments, predominantly the snare.

Horus

At this stage, I have expanded the march character of the theme and altered the melodic thematic material. I took Figure A from the initial composition, with an additional countermelody at the melody's repetition. In figure B, we first hear the march character of the theme, most iconic with its snare rhythm. The melody is played by brass instruments, which feature a heroic style, whereas the other sections provide harmony, rhythm, and texture. Figure C features the same musical content yet is arranged differently. Figures D & E are mainly repetitions of fig. B & C, respectively, with some textural elements added in the woodwinds (which have not been prominent before in the march section). The following two figures, F and G, are taken from the initial composition. In figure F the arrangement and hence the energy falls and rises again throughout the whole figure, resulting in the piece's climax (fig. G). The arrangement of fig. G has been altered to inject more momentum and energy: the instruments providing the harmony now follow and accentuate the main rhythm, similar to Amun-Ra's figure F. With the Coda/Figure H, this theme ends with a harp and strings playing con sordino.

4.2.4. Production and Converting from Sibelius to Nuendo

Once I have finished the orchestration and arrangement processes, I migrate the themes into new Nuendo projects. There I first realise the orchestration by assigning each different articulation of each instrument to its track. After designating the tracks, I use various MIDI CC messages to program different parameters. Each articulation uses its own MIDI CC mapping, but the most predominant are dynamics (CC1) and expression (CC11). Some articulations also feature adjustable parameters like vibrato, release, attack, tightness, etc. For the final production, I used the BBC Symphony Orchestra library. Again, with the MIDI CC messages, I will program the dynamics and loudness of each articulation and add some variety to the performance. Also, during this stage, I will program the percussion using the Damage 2 sample library. An interested reader can find the demos of the tracks after this stage in the "Interim/Programming Finished" folder. The 01 labelled files were the demos I showed to my mentor for some feedback. We both acknowledged some minor aspects which still need adjustment. After the steps described above were finished, I automated the tempo of each theme individually. For this, I recorded quarter notes on a separate MIDI channel as the music played and used its tempo for the tempo mapping. Thus the pace will change slightly every other measure within a limit of around +/- 5 bpm, which makes the orchestra sound more human. Also, I will change the tempo of each section of each piece accordingly. Despite this procedure, I will use self-made PLE macros to randomise both position and velocity of each note to inject more slight variations. The final results at this stage are the 02 labelled files.

4.4. Finalising the production

4.4.1. Mixing

For the mixing stage, I used my orchestral mixing template. Here I used the mix of the first track as a new template to achieve coherent processing between the themes. I adjusted each processing instance in each theme, but the core of the processing remained. I mainly used EQ (static and dynamic) to cut out room frequencies and resonances, which rely primarily on the low-mid range. Another frequently used processing tool was the multiband compressor. I tamed the low end with the multiband compressor, which can get too dynamic by adding many low instruments. Finally, I created a cohesive space for these different libraries with an IR reverb. As an IR, I chose three different-sized symphonic halls and balanced each section/instrument with their send level into the reverb aux.

4.4.2. Mastering

After the mix, I exported the different sections as Stems and mastered them. During the mastering process, I did not use much processing. After minor EQ adjustments (max. +/-1 dB), I used a multiband compressor to apply some glue compression. In my experience, the Linear Multiband Compressor by Waves does this job perfectly. After this process, I applied some harmonic saturation by using some tape emulation and hit the limiter to adjust the track's overall loudness. A stem mastering allows me to volume automate each section individually, which I did subtly to enhance movement to the overall performance. The 48kHz mastered and finished files are located in the folder Tracks.

4.5. Planning the overall presentation of the project

Since I want to publish this project, I must address certain aspects beyond the musical element. Firstly, I must decide on a track order and the naming scheme. Secondly, I have to design an appropriate cover. Regarding the naming system and track order, I have figured out after some listening and evaluation:

- Amun-Ra, the creator

- Osiris, the reincarnated king

- Horus, the heir of the sky

- Seth, the destroyer of worlds

- Anubis, the guide of the dead

- Hathor, the bringer of love.

The design of the cover art has been outsourced.

5 Results

5.1 The goals

Let's retake a look at the goals I initially had in this thesis from chapter one:

<u>Must-haves</u>

Six tracks but a coherent listening experience	Stereo, 48kHz, 24-bit
Realistic sounding	3-10 Minutes each
Fit the characteristics of the deities	Modern symphonic orchestra

First, I ended up with six tracks in a modern symphonic orchestra style. Those are mixed in stereo and are in 48kHz as well as 24-bit. The length of each piece is as follows (in minutes):

- Amun – Ra, the creator   →   04:46

- Osiris, the reincarnated king   →   05:16

- Horus, the heir of the sky   →   03:42

- Seth, the destroyer of worlds   →   03:24

- Anubis, the guide of the dead   →   03:29

- Hathor, the bringer of love   →   05:01

Thus the goals listed on the left-hand side of the chart above can be marked as accomplished. Next, a survey must evaluate the rest of the objectives.

5.2. Presentation at the SAE Campus

Despite the limitations of me just showing extracts from the themes, the presentation of the project on the SAE campus has provided some interesting feedback. I did not want to ask the audience specific questions during the presentation but instead, get their unaltered first impressions and thoughts. These were positive overall. During the first presentation phase, fellow students stated that the depictions of the deities went very well. Most importantly, they noted that the bigger picture was well established, meaning the six individual themes sound like one coherent orchestral suite. Other people said it could easily be from a video game or movie soundtrack. The second iteration of the presentation provided more feedback as the audience was much more extensive. Yet the core elements of the input coincide with the initial feedback. Some people mentioned that hearing these themes has made it easy for them to create images of the deities in their

heads. Other feedback stated that it reminds him of the early Warcraft video game soundtracks. These statements fortify its modern symphonic orchestral style.

5.3. Results from the survey

To evaluate the other goals, I created a survey using an online survey service. The approach to this has been described in chapter 3.5.1. The data from the survey is linked in the attached folder. I have collected data points from 21 individuals. Three of those have not finished the survey, so their data points are incomplete. Some of the participants' data points seemed less significant since they did not listen to all of the tracks. This could be observed in the time it took them to complete the survey. Again, though, this only affected one participant. The chart below shows the calculated arithmetic mean and variance of the results. The scale for the answers went from 1 to 7, with 1 meaning "not at all" and 7 meaning "yes, it fits perfectly".

Questions		Arithmetic mean	Variance
Does this theme fit the god?	Amun-Ra	5.86	1.65
	Osiris	6.14	1.93
	Horus	6	2.53
	Seth	6.75	0.51
	Anubis	6.16	1.7
	Hathor	5.58	4.15
Would you say those themes sound coherent?		6.05	2.27
Does it sound like a modern orchestra to you?		6	1.22

As mentioned in chapter 3, I modified the test results by removing insignificant data. The unfiltered results can be seen in the appendix and the attached folder. The modification only affected one participant, which I marked in light red. The final test results are listed below.

Questions		Arithmetic mean	Variance
Does this theme fit the god?	Amun-Ra	5.9	1.69
	Osiris	6.25	1.78
	Horus	6.26	1.2
	Seth	6.74	0.54
	Anubis	6.39	1.7
	Hathor	5.83	3.09
Would you say those themes sound coherent?		6.33	0.82
Does it sound like a modern orchestra to you?		6.06	1.23

These data show that Seth and Anubis performed exceedingly well. Hathor and Horus did not perform as well. This can also be seen in the data collected from the comment section of the survey. The suite seems to sound like a suite, not six separate tracks. Also, it does seem to sound like a modern orchestra.

5.4. Evaluating the data and plans for the future

As mentioned above, some data points do not seem significant compared to others since they seem inconsistent and unreliable. To minimise this effect, I must collect more data points. The survey data have also shown whether a person likes classical music affected the answers to the

question. It would be great if I also had the opportunity to interview an industry professional. Unfortunately, this was not possible. In the future, I will most likely do an up-mix from stereo to Dolby Atmos for all the themes. Further, I will produce more themes for different deities in a similar style and integrate them into the show, which is still in development. The score will be prepared and edited so a real orchestra can play the themes. An art cover is currently in progress for the final release.

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7. Appendix

Definitions:

Counterpoint

Counterpoint is the technique of writing multiple melodies in conjunction with one another, according to fixed rules. The melodies interact with each other, though they remain individual.

Dies Irae

Dies Irae (Latin for "Days of wrath") is a Gregorian chant dating back to the 13th century. It describes the "last judgement of souls before God where the saved will go to heaven and the unsaved cast into eternal flames of suffering" (Louderbeck, 2019). Though its origin is unclear, it has been used for the requiem masses and referenced in many musical pieces. Examples are Haydn Symphony No 103, Gustav Holst's The Planets, Isle of the Dead by Rachmaninoff and many more. It was also incorporated in many film scores by Ennio Morricone, John Williams, Hans Zimmer, Hermann Bernstein and vice versa. Its distinct 4-note motif of falling 2nds is linked with death in western culture.

Ensemble Patches

Ensemble patches are sets of libraries that use entire sections in one singular patch. For example, a string patch features all the string family instruments in one instance (violins, violas, celli and contrabasses).

Functional harmony

A tonal music theory regards all harmonies as essentially tonic, dominant, or subdominant harmony.

Hybrid Orchestra

A hybrid orchestra is regarded as an orchestra that is a combination of electronic and acoustic instruments. A typical blend is a hyped-up orchestra in combination with a synthesizer.

Melodic development

Melodies can be developed using multiple techniques, such as repetition (repeating the same notes), sequence (repeating the notes but shifted higher or lower), expansion (extending the melody) or truncation (cutting notes off the melody). There are many more techniques to develop a melody successfully.

MIDI CC

MIDI CC stands for Control Change (or sometimes Continuous Control). MIDI CC belongs to the Channel Voice Messages message category (along with Note On/Off messages, Velocity, Aftertouch, Pitch Bend and Program change). With MIDI CC, different parameters can be controlled and automated inside the DAW. For the orchestral setting, a typical MIDI CC mapping would be:

CC1	Dynamics
CC2	Breath Control
CC7	Volume
CC11	Expression

Ostinato

In music, an ostinato is a motif, phrase or even rhythm that persistently repeats in the same musical voice, frequently in the same pitch. Another word for ostinato would be "riff", commonly used in rock music.

Ogdoad

In Egyptian mythology, the Ogdoad were eight primordial deities worshipped in Hermopolis. Those were Nun and Naunet representing the waters, Heh and Hauhet representing eternity, Kuk and Kuaket representing darkness and Amun and Amunet represented air (or that which is hidden).

PLE macros

PLE macros are a form of macros inside Nuendo and Cubase using the Project Logical Editor (PLE).

Tutti

All the performers of the orchestra perform a passage or section.

Ancient Egyptian Mythology:

Amun-Ra:

According to mythology, Amun was the chief god throughout Egyptian history, the lord of the sky and the almighty kind of the Egyptian world. His name means the Hidden One, is perceived as the deity present in chaos in creating the cosmos. Though his proper form is unknowable, Amun is most commonly portrayed as a bearded man, as a Pharaoh in the prime of life, wearing a turban surmounted by two long feathers (which symbolises the dominance over both upper and lower Egypt). Amun Ra was the mysterious originator of all existence and was known as the one who multiplied himself into millions. Amun was said to mystically unite with the queen of Egypt to sire the heir to the throne. This legend of a royal birth is depicted in several Theban temples. For instance, the temple of Queen Hatshepsut bears the relief of her mother being impregnated by

the god Amun. In the new kingdom, the cult of Amun was over time with those of other deities, particularly that of the sun god Ra. Becoming Amun-Ra, he was worshipped as the king of the gods and creator of the world and its inhabitants, earning the name Nebucha (the lord without limits). Another hymn tells us that Amun-Ra was, in reality, a whole of three gods above everything:

- Amun was the hidden one, the entity who can not be known,

- Ra was said to be the visible form of the creator, primarily through his features we all associate today as the sun god,

- Ptah in his human embodiment.

All three combined in the same god creator, who listened to prayers and came at the voice of the distressed, the same deity who gave breath to the wretched and upheld the rights of justice for the less fortunate. Unlike the other vital Gods, he was everywhere, unseen but felt like the wind. Being a member of the Ogdoad, he is also shown with the head of a snake, the form with which he was revered at Thebes with attendant connotations of immortality and endless renewal. Amun-Ra became revered as a transcendental, self-created deity who maintained his secrecy and became known as the life force within everything in existence. He was considered unfathomable by any other being, mortal or divine.

Osiris and the Osiris Myth:

First mentioned in the fifth dynasty, he was first portrayed as a fearsome god, then transformed into a benign deity over time. Usually, he is depicted in human form as a green or black-skinned man with a pharaoh's beard, but frequently tightly wrapped in mummy linen with only his arms free. In Egyptian mythology, Osiris ruled Egypt after his father and was among the most significant and widely revered deities of the Egyptian pantheon. One can summarise the major elements of the Egyptian legend about Osiris around his position among the Egyptian gods and the purpose behind his death and afterlife. Osiris was depicted as the son of the sky goddess Nut and the earth

god Geb and was the first king of the upper world and earned the name "wenenapher" (meaning he who is eternally perfect). But sadly, Osiris' reign over Egypt ended when his violent brother Seth decided to go after Osiris and murder him for the throne. The myth described how Seth persuaded Osiris to step into a fitting sarcophagus. Once Osiris was inside the chest, Seth slapped the lid, which he then sealed with molten lead and tossed down into the Nile river. After years of searching, Isis and Nephtys Osiris, who were no longer alive, brought his corpse back. But his brother found him and chopped his body into 14 pieces, which he scattered all over Egypt. Osiris' sister and wife, Isis, looked all over for his limbs and gathered the pieces. With the help of the jackal god Anubis, the god of the underworld at the time, who helped patch up the dismembered fragments together and made the first mummy, resurrecting Osiris. Osiris was alive long enough to impregnate Isis. She conceived and later gave birth to his son Horus, who would eventually avenge his father's death and claim that it rightfully belonged to him. Due to his revival by Anubis and Isis, he later became associated with fertilisation, agriculture and. The early kings of Egypt were the divine embodiment of Horus in life. Though, they were believed to become Osiris in death through the ritual of mummification. Osiris lived on and became the lord of the underworld, a role granted to him by Anubis, and he started to be shown as a mummified king. Osiris was the judge of the dead and the underworld. His other duties were the sprouting vegetation and the fertile flooding of the Nile river.

Horus:

Horus is the god of the kings and the sky. He is a god depicted as a falcon whose left eye was the moon (or evening star) and whose right eye was the sun (or morning star). He is regarded as Egypt's most powerful god, which he earned by defeating his uncle Seth. It was believed that the Pharaohs were descendants of Horus himself, which is why the most important of a king's names was his Horus name (the name identified him with Horus). Horus and Seth were presented as perpetual antagonists. In the Osiris myth, Seth murdered his brother and the father of Horus,

Osiris, and contested Horus's heritage. Becoming his enemy, Horus eventually defeats Seth, thus avenging his father and assuming the rule. However, in this fight, Seth damaged Horus' left eye (the moon), a mythical explanation for the moon's phases, though it was ultimately healed by the god Thoth. The wedjat eye (his restored eye) is a powerful symbol in ancient Egyptian mythology. Horus is also associated with the deity Hathor – sometimes as a partner, sometimes as a son.

Seth:

Seth is one of the most famous gods in Egyptian mythology. He was the son of Geb and Nut (heaven and earth). He is also the brother of Osiris, Isis and Nephtys, which later became his wife. Like the other Egyptian deities, he is depicted as a man with an animal's head. However, to this day, it is discussed what animal that would be: some say he was a hybrid beast, a mixture of pig and donkey, or an aardvark, an animal similar to an anteater. The god personified violence and destruction and was considered a mischievous god. Seth was the lord of the deserts and infertile lands, whereas his brother Osiris was worshipped as a fertility god. Being the god of infertility, he had no descendants and was intensely jealous of his brother. Therefore, he plotted a ruse to bring him down from his throne: he murdered his brother and robbed his throne, but Osiris had a descendant Horus, the hawk god. He sought to avenge his father's death and take the throne from the usurper. The clash between Horus and Seth is one of the most famous stories in Egyptian mythology. For a long time, the gods fought among themselves. In the end, Horus emerged victoriously. Seth's immense power, though, was being acknowledged by the gods and considered too crucial to be wasted. The gods then decided that Seth would sail along with Ra, the solar god, protecting the ladder from the terrible Apophis serpent. Whenever Apophis would emerge to attack Ra's ship, Seth defended the world against the eternal night. According to some scholars, Seth was considered one of the main gods in upper Egypt. On the opposite side, Horus was worshipped in lower Egypt. Though, after the unification of Egypt, Seth connected to the Semitic invaders from the north and thus lost much of his prestige. Seth's action was attached to the de-

struction of crops, hunger and thirst, massive heat and droughts. The day of Seth's birth was considered a day of bad luck. Although defeated and rejected, Seth's great power and influence within the ancient Egyptian religion are undeniable.

Anubis:

Before the greeks came and named him Anubis, he was referred to as Anpu or Inpu, which translates from ancient Egyptian to "decay". Anubis is probably the most recognisable god in the Egyptian pantheon. He is often depicted as a man with a head of a jackal. He is regarded as the god of the afterlife and mummification, though the title of the ruler of the afterlife was later assigned to Osiris. Even after stepping down the throne of the underworld due to respect to Osiris, he maintained a crucial role: helping guide the source through to the afterlife. When a soul would arrive at the afterlife, Anubis would escort them to the Hall of two truths, where he would weigh their heart with the feather of Ma'at (representing justice and order). If their heart outweighed the feather, they were not granted passage to the afterlife. Instead, if they could not convince Osiris and his judges that they lived a life, they were cursed to suffer a second death. It is said that Anubis is often depicted slightly tipping the scales in favour of the soul, showing his compassion for the dead. Anubis is a highly unselfish god who cares not for glory or status and is devoted to his task. This can be seen when he allows Osiris to become the underworld's ruler, as it does not affect his ability to protect and help the dead. Anubis is often depicted guiding individuals across the threshold of the living world to the afterlife and was heavily worshipped because he gave people hope despite modern beliefs. A story recorded in the first millennium tells how Seth disguised as a leopard, tried to approach the body of Osiris, but got seized by Anubis, who flayed Seth and wore his skin as a warning to anyone who would profane the tombs of the dead. Anubis was always represented in black, a colour symbolising rebirth, the fertility of the Nile, and the discolouration of bodies after the embalming ritual.

Hathor:

Hathor was one of the goddesses with significant importance in Egyptian mythology. Hathor was a primary deity with a benign motherly nature who helped women to give birth, the dead to be reborn, and the heavenly cosmos to be renewed. This complex figure was eventually considered the primeval being from which all other goddesses were derived. Therefore, several female divinities mentioned in later myths came to be regarded as names of Hathor in her contrasting benevolent and destructive aspects. Hathor was associated in early myths with the lion goddess Sekhmet. This association is mentioned in the story of the Legend of the Eye of Ra, in which she was sent to punish humanity. In contrast, later, she is associated with the goddess Isis who took over her characteristics. Following her transformation, Hathor bestowed only beautiful and uplifting gifts upon children of the earth and assumed such a high status that all later goddesses could be considered forms of Hathor. As a goddess who transcended life and death, Hathor was widely worshipped, and her name was later carried by a divinity known as the distant goddess. Believed to have abandoned her father to live in a wild feline form in the deserts beyond Egypt, she is regarded as the goddess of the foreign land. When the distant goddess returned to her father, she brought with her the inundation of the Nile river, which brought life to the people. But before the goddess released these life-giving waters, she had to be appeased and show appreciation with music, dancing, feasting and drunkenness. This was the mythical justification for her cult's wild and ecstatic elements because she was the patron goddess of joy, inspiration and celebration. Among her many names, she was sometimes referred to as the mistress of drunkenness, which could indicate both joyful inebriation and a more ecstatic and violent state of individuality. The goddess Hathor was the female creative principle personifying love, beauty and sexuality. This erotic side of her nature associated with the erotic aspects of music and dance makes her the patroness of lovers in Egyptian poetry. In the Osiris myth, Hathor would seduce her enraged father and thus, ensuring the harmony and balance between female and male, light and dark.

Results of the survey

Feeling Like A God - Survey responses				Amun-Ra	Osiris	Horus	Seth	Anubis	Hathor					Number
1. Are you familiar with orchestral music?	2. If yes, which one would you regard as your most favourite composer?	3. Or someone else?	4. What other music do you normally listen to?	5. Does this theme fit this god?	6. Does this theme fit this god?	7. Does this theme fit this god?	8. Does this theme fit this god?	9. Does this theme fit this god?	10. Does this theme fit this god?	11. Would you say those themes sound coherent?	12. Does it sound like a modern orchestra to you?	13. Do you have any other feedback for me? :-)	Spent time in the survey [minutes]	
Yes, I love it	Ludwig van Beethoven		Rock, Jazz, Blues	7	7	7	7	7	7	7	7	This sounds really cool! Hathor seemed to be different since the use of the piano. Nevertheless, it has been a great listening experience!!	34:45	1
Yes, I love it	Johann S. Bach		Rock, Jazz, Funk	7	5	7	7	5	7	6	5	If I knew the story I could tell better Is there a fight between all these gods? That would explain the "military" drums.. Are there long periods where the camera shows calmly scenes (landscapes, folks, palaces, etc...) But after all: this music sounds good to me. Well done!!	23:31	2
Have heard bout it	Ludwig van Beethoven		Pop, Rock	7	7	7	6	6	6	6	7	Good Job!	08:24	3
Yes, I love it	Gustav Mahler		Rock, Funk, Metal	7	7	7	7	7	7	7	7	Awesome!!!	19:32	4
Yes, I love it	Johann S. Bach	Max Richter	Rock, Funk, Techno	6	7	7	7	7	6	7	6	Great vibe and ambience on the Seth and Anubis Scores!!!! My two favorites for sure :)	28:54	5
Yes, I love it	Hans Zimmer		Pop, Rock, Hip Hop	3	5	4	6	5	3	5	4	Hi, In einigen Tracks fühlt es sich so an, als wolltest du zu viele Noten in zu kurzer Zeit spielen. Irgendwie zu "jazzig". Immer dumm daher gesagt, aber ich hab mal gehört es gehe auch um die Töne, die man nicht spielt. An der ein oder anderen Stelle vlt auch nochmal nachmischen. Da gehen Töne vor lauter Trommeln verloren. Ansonsten, einen hatte ich mit 6/7 bewertet, den fand ich echt gut. Mit kleinen Anpassungen wäre es für mich ne 7/7. Viel Erfolg mit der Bachelorarbeit.	26:55	6
No, this is new to me			Techno, Hip Hop	5	3	6	4	6	3	4	5		08:43	7
Have heard bout it			Techno, Electronic, Hip Hop	5	7	4	7	6	2	5	6		18:40	8
Yes, I love it	Piotr Tschaikowski		Metal	7	7	7	7	7	7	7	5	The orchestral pieces fit their respective Gods beautifully and the music is able to really bring forward the imagery of what each God represents. One can truly picture a movie with an egyptian setting where the Gods are the characters and your compositions their themes. Masterfully done.	39:32	9
Yes, I love it		Jeremy Soule	Metal, EDM, Electronic	6	7	7	7	5	7	7	7	Anno Egypt ;) Schick die Idee an Ubisoft	42:18	10
Yes, I love it	Hans Zimmer		Funk, Blues, Hip Hop	3	7	4	7	7	7	7	5	I liked how Osiris's track emphasized marching of the dead as well as the guidance aspect. Amun Ra to me felt as if it needed a bit more of a strain as being born is never a dull moment.	37:49	11
Have heard bout it	Wolfgang A. Mozart		Pop, Metal, Hip Hop	5	4	1	7	2	1	1	5	Try and make it so they don't sound so similar, instead of going for heroics you coils try and go for more angelic themes and maybe have the songs tell a story.	02:04	12
Have heard bout it			Pop, Rock, Electronic	6	3	6	7	7	4	6	4	I would think that Osirus would be more dirgelike. His music was surprisingly light.	12:56	13
Yes, I love it	Gustav Mahler			6	7	7	7	7	7	7	7		10:43	14
Have heard bout it	Edvard Grieg		Rock, Metal	5	7	6	7	5	4	7	6	Was kinda surprised that Isis wasn't part of the gods here	11:43	15
Yes, I love it	Wolfgang A. Mozart		Pop, Rock, Techno	7	7	7	7	7	7	6	7	You are very talented.	12:43	16
Yes, I love it	Ludwig van Beethoven		Pop, Reggae, Hip Hop	7	6	7	7	7	7	6	7	Seth's sound is incredible!	13:43	17
Yes, I love it	Johann S. Bach		Rock, Jazz, Techno	7	7	7	7	7	7	7	7	Seth and Anubis are simply amazing. My favourites!	14:43	18
Yes, I love it	Brian Tyler			7	7	6	7	7	7	7	7		15:43	19
Have heard bout it			Techno, Electronic	4	7								04:20	20
Have heard bout it	Hans Zimmer		Metal, Electronic, Hip Hop	6									03:32	21
Yes, I love it	Hans Zimmer		Pop, Rock, Hip Hop	6	5	6	7						06:10	22