Berklee College of Music

Easy as Pie

Composing for Stop Motion Animation

Submitted in Partial Fulfillment of the Degree of Master of Music in Scoring for Film,

Television, and Video Games

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Abstract

All film scoring consists of solving problems: technical, logistical, and of course creative. Nowhere is this more true than with animations, which require some of the most nuanced and precise musical treatments in any medium. In this essay, I explore the process of scoring the stop motion animation *Easy as Pie*, including the research I conducted to prepare, the challenges I faced along the way, and an analysis of the score I eventually wrote to overcome those challenges.

Acknowledgements

Film composition is a collaborative art; so too is the education of a film composer. First, thank you to Lucio Godoy, my primary advisor for this project. Thank you also to my other Berklee professors: Alfons Conde, Vicente Ortiz Gimeno, Sergio Jiménez Lacima, and Pablo Schuller. Without their guidance, this project wouldn't have happened. Thank you to Helena Burgueño for creating such a beautiful film specifically for this project, and for trusting me with her art. Stop motion is extremely labor intensive, and the time and care that went into this is not lost on me. Thank you to my friend Julian Kornick for the many work parties and runs that made this project happen. Thank you to the past mentors who helped me reach this point – Larry Groupé, Yoav Goren, Jeff Fayman, Rick Marvin, and Steve Thomas, in particular, as well as many others too numerous to name. Finally, thank you to my parents, Scott and Beth Jorgensen. Their unfailing love and support has been a main ingredient in all my successes. I am extremely fortunate to have such wonderful parents. I miss you both terribly and can't wait to show you what I've made.

Introduction

Film scoring is an exercise in problem solving. From technical glitches and logistical nightmares to uncovering why a scene isn't working, why a hit isn't landing, or what a director's cryptic comment means, puzzles and problems abound. This project was no exception to this principle, with a problem arising immediately – finding a suitable project. The restrictions placed upon our culminating experience project by necessity (inflexible dates for recording, semi-inflexible dates for receiving material we could score, a pre-determined ensemble, and a maximum of three minutes of recorded music) also significantly reduced the number of potential collaborations. In the end, a month of emails and searching for an appropriate project did not yield results for me.

The solution to this problem came from an unexpected place – my father. He received a Christmas card from an old friend mentioning a daughter recently graduated from Amherst College with a degree in Film and Media Studies, working making animations. Aware that I was struggling to find a project, he offered to put us in touch. After a FaceTime and some exchanged emails, Helena Burgueño and I agreed to collaborate. The result, short film *Easy as Pie,* was more exciting and interesting than any of the other projects I had scoped out. That is the magic of film scoring – each snag, be it technological, practical, or artistic, leads to further creativity, further searching for the best solution, and further fulfillment for all parties.

A chain of problems shaped this project, each challenging and inspiring, making the project more vibrant, more unique, and more satisfying. It is my hope that the results are satisfying for the audience as well.

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Preparation

Before beginning to compose, a full understanding of one's creative goals is required. My preparation to this end can be broken into two categories: Research and Film Analysis.

Research

Film scores often use a pre-existing musical language to establish an "immediate rapport" with the audience.[1] This language changes across genres – the language for comedy is different from mystery or horror – and to write effectively one must be familiar with the right language. *Easy as Pie*, being a short, silent, stop-motion animation, was best suited by the musical language of animations and cartoons. So, I researched the musical elements that make animated and cartoon scores distinctive. Here are some key takeaways from that research:

1. Music in animations takes an active role in the film. As Leonard Maltin says in his foreword to *The Cartoon Music Book*: "Music wasn't just punctuation for those cartoons; it was their backbone. Music propelled them, commented on the action, underscored the comedy, enhanced the atmosphere, and accelerated the chases. It was a crucial ingredient".[2] Music must provide a core impetus to animations.

2. Animation scores synchronize many 'hit points' (where music emphasizes a specific moment). This takes two primary forms. The first is "mickey-mousing", where music literally paints action on screen. Though frowned upon in live action film, in animations,

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1. K.J. Donnelly, "Introduction: The Hidden Heritage of Film Music: History and Scholarship," in *Film Music: Critical Approaches*, ed. K.J. Donnelly (Edinburgh: Edinburgh University Press Ltd, 2001), 3.
2. Leonard Maltin, "Foreword," in *The Cartoon Music Book*, ed. Daniel Goldmark and Yuval Taylor (Chicago: A Cappella Books, 2002), ix.

it can "add a sense of vitality to … cels that never had any life in them in the first place".[3]

The second is synchronizing to cuts. This too is avoided in live action films because it emphasizes edit points, something directors usually want to hide. In animations, however, where cuts are 'fake' (and thus intentional) it is typical to synchronize music to cuts.[4]

3. Animation scores change rapidly in "style, arrangement, orchestration, density, texture, dynamic, [and] tempo" to match the dynamic action on screen.[5]

4. Animation scores have significant license for musical experimentation. Iconic cartoon composer Scott Bradley noted that in cartoon music, "endless experiments in modern harmony and orchestration are acceptable", pointing out the use of "shock chords": highly dissonant mickey-mousing chords "which sometimes reach the outer limits of harmonic analysis".[6]

These four core elements make music sound 'animated', and I endeavored to incorporate them within the context of my own musical style to create an appropriate, animation-style score.

Books alone cannot teach music however, especially not film scoring. I also viewed various animations from different time periods and listened to various scores, seeking references and inspiration. Three of these works will be referred to during my discussion of the final composition:

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3. Daniel Goldmark and Yuval Taylor, "Introduction," in *The Cartoon Music Book*, ed. Daniel Goldmark and Yuval Taylor (Chicago: A Cappella Books, 2002), xiv.

4. John Corbett, "A Very Visual Kind of Music: The Cartoon Soundtrack Beyond the Screen," in *The Cartoon Music Book*, ed. Daniel Goldmark and Yuval Taylor (Chicago: A Cappella Books, 2002), 281.

5. Ibid., 282.

6. Scott Bradley, "Personality on the Sound Track: A Glimpse Behind the Scenes and Sequences in Filmland," in *The Cartoon Music Book*, ed. Daniel Goldmark and Yuval Taylor (Chicago: A Cappella Books, 2002), 123.

- *Kop Op*, directed by Job Roggeveen, Joris Oprins, and Marieke Blaauw.

- *Wallace and Gromit: The Wrong Trousers*, directed by Nick Park.

- The Hal Leonard publication of excerpts from *Star Trek* by Michael Giacchino.

Film Analysis

In any collaboration, you must understand your collaborator's goals. Those goals are laid out visually in a film, and therefore an analysis of said film is necessary. Though viewing *Easy as Pie* will facilitate understanding for the reader most quickly, I shall also briefly explain the film's overarching elements here. Specific moments of the film will be explained during the analysis of my composition.

Easy as Pie's main character is The Creature. He is obsessed with trying to paint a slice of pie but is unable to achieve his artistic goals. Without his knowledge, his failures stem from the fact that his animator didn't give him the right anatomy to succeed. Throughout the film, The Creature inhabits three bodies, each with different features. The first two do not facilitate his vision; the third finally does. Thus, the story comments on the nature of artistic struggle and growth. Bringing out that central theme and its corresponding emotions was my main job.[7]

The film contains five sections, demarcated by cuts to black.

1. 2D stop motion - The Creature and central conflict are introduced.

2. 2D stop motion -The Creature now has joints, but still can't achieve his goals.

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7. Some of my insight about the story comes from early storyboards Helena sent me. When my parents viewed the silent film, they voiced confusion regarding plot and themes. This revealed where extra guidance was needed from the score to clarify plot/intention – I will elaborate upon this more during my detailed analysis.

3. 2D stop motion, live action, 3D stop motion - The Creature (and the audience) realize he is being manipulated by an animator (The Puppeteer). He transfers to a 3D avatar.

4. 3D stop motion - Section 1 'repeats', now in 3D. Finally, The Creature can achieve his artistic goals.

5. Still Images - The credits play over different stylized variations on the pie painting.

This structure determined the score's pacing, usage of thematic material, and resource allocation.

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A Note About the Director

Helena Burgueño spent countless hours producing this excellent film. As is typical for film composers, I had very little input to this process; my only request was that the film be suitable to a large orchestral ensemble. Less typically, Helena reciprocated that freedom in terms of the score. Though I sent her demos frequently, her responses were unfailingly positive, at one point writing "I am … happy to let you take full creative license with the music". She happily gave opinions when I had specific questions, but never offered corrective feedback in response to my music. This is an unusual but fortunate arrangement; all musical choices are mine and mine alone, representing my musical voice in its most unadulterated form.

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Problem One: Structure

Unlike concert music, where the composer creates whatever formal structure they wish, media music's structure is determined by the film, which must be considered on both macro and micro-structural levels.

Meta-Structural – Recording Time Allocation

My first structural problem was practical, not creative: we may only record up to three minutes of music in London, but *Easy as Pie* is five minutes long. Because music is crucial in silent animations like this one, there was no leeway to leave sections without music. To solve this, I chose to record about two minutes of the score during our final recording with the Budapest Art Orchestra. However, this generated a new problem. The different number of players, different room, and different microphones, among other things, would create audible differences when juxtaposed against the London recording. To minimize this jarring effect, I needed to carefully select the transition point between the two recordings.

The solution lay within the film itself. The first half of the movie is 2D animation, while the second half is a mix of live action and 3D animation. This switch is the perfect spot to change ensembles on both a practical and thematic level. Though the Budapest ensemble sounds excellent on its own, the London recording will feel fuller, lusher, and livelier. We will realize what we were missing, even though we didn't feel that lack before, paralleling both the visual shift and the character arc. What was a problem thus becomes instead a storytelling asset.

Macrostructure

As described in 'Preparation', the film is divided into five sections, and thus the macrostructure of the score is too. Additionally, the visual parallels between section one and

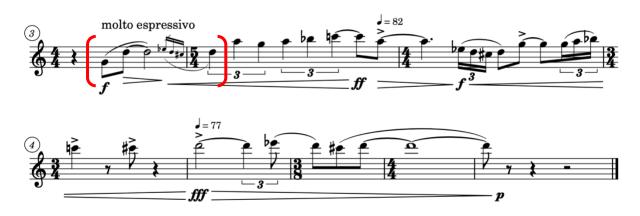section four are an important element of the film, and the music should emphasize this callback.

Thus, I determined the most effective macrostructure would be:

A	B	C	A'	D

Microstructure

Largely, I will discuss microstructure during the play-by-play analysis of my

composition. However, one key microstructural facilitator should be addressed early on: my

thematic material. My style often uses themes as a developmental device, so it is important to

define them.

Figure One: Art Theme – Excerpt from Solo Violin 1 Part

This theme represents Art, introduced over the opening shots of The Creature's many

failed paintings. It represents both the literal art pieces, and the conflict between The Creature's

aspirations and his failures. It is often used in fragmentation, particularly the fragment indicated

with brackets.

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Figure Two: The Creature's Theme – Excerpt from Oboe 1 Part

This theme representing The Creature is introduced when we see him for the first time.

Since he is on screen nearly constantly this theme does not play *every* time we see him, but does

recur frequently.

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Problem Two – Addressing the Picture

With overarching structure determined, I next filled in that structure, addressing the picture moment by moment in a stylistically appropriate manner. Walking through every detail would be a very long paper indeed, so instead I shall highlight the key elements of my compositional approach.

Section One

The opening of the film posed two problems. First, it is a series of still lifes which only provide plot information in retrospect. The music must thus keep the audience's attention while also providing tone. Second, since section one must be sonically linked to section four, especially in the opening section, it needs a distinctive sonic identity immediately recognizable in the reprise.

To solve the first problem, I referenced short film *Kop Op*. The first seventeen seconds are similar to the opening of *Easy as Pie*: a series of still images without plot action, whose relevance is only understood in retrospect.[8] The composers, musical group Happy Camper, addressed these images using a method uncovered in my research – hitting the cuts.[9] The cut to each still image is musically synced, giving them a sense of purpose, though we don't know what it is yet. To produce a similar effect for the opening of *Easy as Pie,* I imitated that technique with cut-synced stabs in the opening of section one. This required a great deal of problem solving itself, as the cuts did not occur in an inherently rhythmic fashion. Thankfully, the dynamic, ever

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8. *Kop Op*, directed by Marieke Blaauw, Joris Oprins, and Job Roggeveen (Job, Joris & Marieke, 2017), accessed May 28, 2021, https://kanopy.org
9. Ibid.; "Kop Op (Heads Together)," Job, Jorris & Marieke, accessed May 28, 2021, http://jobjorisenmarieke.nl/kop-op.

changing nature of animation music allowed for changing tempi and time signatures to

accomplish this task.

Unlike *Kop Op*, however, *Easy as Pie*'s score needed to underline the conflict implied by

the repeated juxtaposition between The Creature's muse and his failed art, as well as create a

strong sonic impression. To that end I used heavy, densely orchestrated chords (as opposed to the

light synth hits of *Kop Op*).[10] Additionally, because the cuts in *Easy as Pie* are slower than in

Kop Op, I maintained forward momentum through other means; I juxtaposed a quasi-cadenza

violin solo against the dramatic hits, pushing from one stab to the next. This also provided an

opportunity to introduce the Art thematic material in a clear way.

The following section (0:26 – 0:37, mm. 10-14 Part 1) is a long, slow introduction to The

Creature. Though such sequences can sometimes be challenging, in this case it was ideal. First, it

allowed me to introduce The Creature's theme clearly in full, making the association

unmistakable. Second, it allowed a return to a lower energy level. After starting with high

intensity, this drop provides crucial space to grow again.

From 0:37 to 0:57 (mm.15-22 Part 1) there are repeated cuts between The Creature, his

art, and his muse, reminiscent of the opening of the film. I therefore used the orchestra in a

similar manner as the opening, hitting each cut to a source of The Creature's displeasure. These

chords are significantly more dissonant than before, reflecting the tension between The Creature

and his goals, consisting entirely of diminished triads and seventh chords.

The section which follows, from 0:58 -1:28 (mm. 24-38 Part 1), consists primarily of

fragmentary thematic development, dovetailed to maintain forward momentum through the

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10. *Kop Op*, directed by Marieke Blaauw, Joris Oprins, and Job Roggeveen (Job, Joris & Marieke, 2017), accessed May 28, 2021, https://kanopy.org
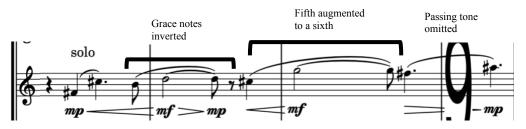
painting sequence. This flow is interspersed with stabbing interjections to reflect The Creature's

growing frustration. See below selected examples of how I fragmented and developed these

themes.

Figure Three: Comparison of Original Art Theme with Fragments from 0:58 -1:28

Original - fragment:
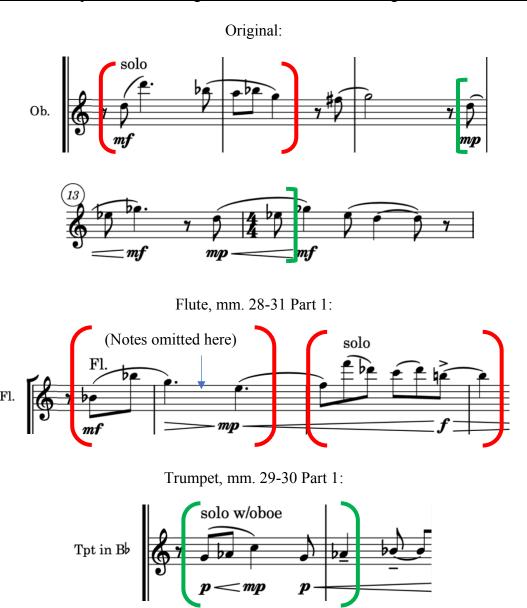

Oboe, mm.24-26 Part 1:

Violin 1 solo, mm. 28-29 Part 1:

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Figure Four: Comparison of the Original Creature Theme with Fragments from 0:58 -1:28

Original:

Flute, mm. 28-31 Part 1:

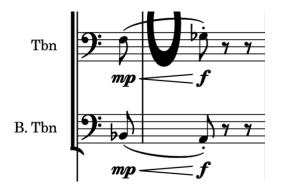Trumpet, mm. 29-30 Part 1:

Section Two

Orchestration is the key to the opening of section two. Shimmering, sparkling colors (high tremolo strings, harp, celeste, and glockenspiel, with light interlocking staccato woodwind lines joining later) underline that something new and wonderful is happening - The Creature is waking up in a new body. These elements remain through 1:44 (m. 45 Part 1), where a shift is

necessary as The Creature faces his nemesis once more. I therefore added some warm brass, changed the woodwind texture to something more rhythmically structured and consistent, and brought the strings into their lower registers to lend some added gravitas.

The Creature's first attempt painting with joints necessitated the first explicit use of 'mickey-mousing' – a trombone gesture mimicking the flop of The Creature's wrist. Mickey-mousing helps the audience understand that this gesture is unintentional, a result of the flaw in his structure. For this action, a piece of reference audio jumped to mind immediately – a stock stinger used frequently by YouTube creator Daniel Howell. The gesture of this stinger parallels the flopping of The Creature's hand and gives a sense of something going awry. To get a similar effect, I chose similar registers, instrumentation, and voice motion for my own interjections.

Figure Five: Example 'Flop' Gesture, mm. 51, 52, Part 1

This gesture anchors the sequence, with additional lines in other voices serving as connective tissue, underlining the confusion and frustration, building in intensity over time.

To help convey the fury that knocks The Creature off his feet at the climax of this build, I used a shock chord. Like many shock chords, it defies easy classification – an F major chord with a B major chord above it, creating a highly dissonant collection of pitches. However, wide spacing within the orchestration makes the dissonances less grating than they otherwise would be, resulting in a shocking but not unpleasant sound.

Section Three

There were three goals for the first thirty-one seconds of section three: convey

uncertainty and eeriness, hit important cuts, and build to the reveal of The Creature's 3D avatar.

My approach to this centered around minor-major 7th chords. This chord (known colloquially in

my undergrad as the 'film noir' chord) has an unsettled feeling, creating tension without inherent

negative connotation.

Figure Six: Example Minor-Major 7th Chords from Section Three (Reduction)

Motion is maintained in this sequence by hitting cuts to the diagrams and models, albeit gently;

each 'hit' is just an emphasized chord change. This harmonic structure serves as a foundation for

fragments of themes that are laid on top, completing the texture.

However, that all changes at 2:43 (m.14 Part 2) when the 3D avatar is revealed. This is

the most intense moment of the film; a partial reveal, then the low angle camera paired with the

dramatic flickering lamp makes the avatar foreboding, ominous, and overwhelming. As a

reference for this moment, I used a moment from *Wallace and Gromit: The Wrong Trousers*. At

4:01 in the film, the trousers in question are introduced in a similar manner as the 3D avatar in

Easy as Pie, showing just the feet, then gradually revealing more.[11] Composer Julian Nott took a

tiered approach to this piecemeal reveal, starting with an ominous monophonic bass, then slowly

adding additional elements and escalating the harmonic tension in a long build.[12]

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11. *Wallace and Gromit: The Wrong Trousers*, directed by Nick Park (Aardman
Animations Production. 1993, accessed June 6, 2021, http://youtube.com
        12. Ibid.

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I couldn't follow this literally, as my sequence was both shorter and had to fit within the context of music around it, but it served well as a reference. At the first reveal of the 3D avatar's legs, I used a percussive hit and a variation on a French-Augmented 6th chord. Like Nott's bass line, this marks a distinct change from what came before. Its quasi-dominant, 'needs to resolve' feeling also pushes towards a coming resolution, facilitating an orchestral swell to (and through) the full reveal arrival, paralleling Nott's structure.

One shortcoming of *Wallace and Gromit: The Wrong Trousers* as a reference was that unlike the titular trousers, in *Easy as* Pie, though the 3D avatar seems foreboding in the end it is good news for The Creature, and thus the music should not paint it in a negative light. To find that 'vast and powerful, but not evil' feeling, I looked to the main statement of the theme from Michael Giacchino's score for *Star Trek [2007]*. His music captures the vast and overwhelming expanse of space without painting it as a threat, and I sought to use similar textures and orchestrations to achieve a similar effect.

Like *Wallace and Gromit*, I couldn't follow this literally. My core idea involved a harmonized melody, which broke from my reference in a very significant way. However, I did take some key concepts from it. These included presenting melodic lines in double octaves between strings, woodwinds, and brass, having a less active bassline, and adding secondary moving lines in moments where the melody pauses[13]. These concepts helped give this section the gravitas that it needed. For comparative excerpts please see mm. 15-19 in Appendix B, and my reduction of Giacchino's score in Appendix C.

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13. Michael Giacchino, *Star Trek* (Milwaukee: Hal Leonard Corporation, 2009).

After this epic reveal, we see the sole acknowledgement of The Puppeteer: a hand interacting with the 3D avatar. This is the only moment that forces us to be aware of the meta-creative process: as The Creature is repeatedly trying and failing to paint, so The Puppeteer is repeatedly trying and failing to animate. Considering this meta-story, I repurposed music from the passage at 0:57 (m.24 Part 1). In both sequences, the active character (The Creature in section one, The Puppeteer in section three) makes an active attempt at their craft without certainty that it will work. Emphasizing the plot parallel by creating a musical parallel helps tell this meta-story.

Figure Seven: Reductions of Key Elements from 0:57 and 3:04

0:57 (mm.24-26 Part 1)

3:04 (mm. 20-23 Part 2)

The moment when The Creature wakes up required special care. After watching the film, my father told me he assumed that the 3D avatar was a different being of some kind,
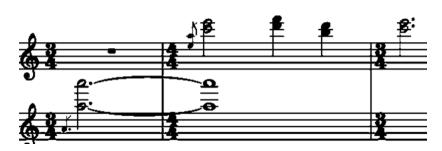
malevolently replacing the original Creature, *Body Snatchers* style. So, I knew the music had to

indicate that this is a positive transformation, not a negative replacement. To do this, I quoted the

beginning of section two - the other time where The Creature wakes up in a new body. Though I

changed the orchestration to reflect a richer, warmer 3D reality, the musical content of the first

seven seconds of The Creature's consciousness is nearly identical.

Figure Eight: Reductions of Key Elements from 1:29 and 3:13

1:29 (mm 39-41 Part 1[14])

3:13 (mm. 24-26 Part 2)

However, I deviated from that quotation as The Creature experiments in his new body,

eventually becoming overwhelmed, this time with joy. To show that joy I used a series of

extended tertian chords, a sound I associate with warmth and deep happiness. Each chord adds

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14. Please note that the majority of the elements in this reduction are contained within MIDI instruments which were not recorded live, and therefore are not represented in the full score used for that recording.

another third below the previous one, creating an increasingly rich sound and building to the cut

to black.

Figure Nine: Reduction of Extended Tertian Chords at 3:20[15]

Section Four

Section four, though it required much consideration throughout this process, needs little

explanation. The first seventeen seconds (mm. 29-36 Part 2) are almost identical to the first

twenty-five seconds of section one (mm. 1-9 Part 1), with a few minor timing changes, two

omissions of material, and a transposition of a minor second. Then, from 3:47 to 4:04 (mm.37-42

Part 2), the material still parallels section one, but with a metric change – 4/4 instead of 3/4 – and

with added voices to create a richer texture, reflecting the new 3D world. To see these

similarities and differences, please see Appendix A and mm. 30-44 in Appendix B.

The first material in section four that isn't a conformation of section one is 4:10 (m. 45

Part 2), and it carries us to the end of the film proper. This single musical gesture creates

uncertainty through the action of painting before pushing into a resolution as we realize The

Creature's success. Uncertainty is created with tremolos and diminished harmony, which

supports a fragment of The Creature's theme. A harp glissando both mickey-mouses The

Creature's successful smooth brushstroke and works as a transition resolving to E Major. This

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15. Note: not rhythmically accurate

chord swells into the awe, wonder, and joy that blooms on The Creature's face by expanding the

orchestration and adding a major 7th to the chord, creating that sparkling warmth. Atop all that, I

present the main motives from each of my main themes one last time, modified to fit a major

mode. This thematically signifies how The Creature and his artwork are now in a place of

harmony instead of conflict.

Figure Ten: Reduction of 4:10 (mm. 47-50 Part 2)

Section Five

Section five, consisting of only the credits over still images, required little structural

consideration. With hits being less important, I simply had to create something engaging to

match the general visual aesthetic. This section visually contrasts the rest of the film – it contains

only still images and has a different visual style. Additionally, this is the only part of the film that

is dedicated exclusively to celebrating victory, showing off The Creature's many successful

works. Thus, I felt the music should be active (to push the still images forward), in a somewhat

different style to reflect the change in visual style, and that it should be victorious in tone. To

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create activity I chose a rapid tempo and set up a constant drive in the strings, brass, and

woodwinds. To create a contrasting, victorious style, I settled into a persistently major harmonic

world (contrasting from the harmonically ambiguous body of the film). On top of that, I once

again set motives from the two themes in a major key, giving them more time to be explored.

The result is an upbeat credits sequence that entices the audience to stay and watch while

celebrating The Creature's victories.

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Problem Three – COVID

The COVID-19 pandemic was, of course, a significant problem for the entire planet in many ways. As pertains to this project, however, the primary problem was that our recording session in London was postponed. Thus, we needed another way to present our work for evaluation. The solution is one used frequently in our industry – the use of realistic MIDI mockups. However, creating a convincing demo is an entirely different task from the preparation that goes into a recording session. Additionally, I was going to have a live recorded segment of music (sections one and two, recorded with Budapest) directly juxtaposed against a MIDI mockup, making the standard of realism required much higher.

The solution to this was never going to be perfect. Even the best MIDI mockups cannot compete with a true recording. Nonetheless, I did what I could to smooth that transition, and create the best possible stand-in until the final recording can be safely conducted.

There were three stages to my process. The first, programming, was the most work. Working with MIDI CCs to produce realistic results requires much time and care, especially in a full orchestral scenario. I shaped each individual line, then re-shaped them to create a cohesive ensemble. From there, I moved to stage two – mixing. I printed stems of each instrument group and imported them into Pro Tools, my preferred mixing software. There I used various mixing techniques to add even more realism and cohesion to this fake ensemble. And finally, in the mastering stage, I tried to match this mix to the mix of the Budapest recording. Though the two can't sound the same in terms of ensemble, using similar mastering techniques created a consistent overall color to the sound even as the ensemble changed.

Conclusion

This was unquestionably the most complex cue I have ever taken on. Not only is five minutes a relatively long cue, but to accommodate the nuances of timing, structure, style, and emotion, I had to hold local and long-term considerations in my mind simultaneously and find solutions that could accommodate all these perspectives. And, I had to ensure all solutions were feasible for sight reading players and would facilitate a final mix. But as revealed in my analysis, each challenge was necessary for the composition process; without these considerations, the music has no impetus, no reason for being. Film music exists to wrap around sharp edges and to prop up tables missing two legs. Unlike concert music, it often has no internal drive, only drive demanded by the picture. Many films' edges aren't quite so sharp or obvious as in animations like this one, but they need addressing nonetheless. Working with an extreme case like this one forced me to use every tool in my toolbox to solve the problem of bringing this story to life. I am very proud of the outcome of my work – I hope that you, dear reader, enjoy it as much as I have enjoyed working on it.

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Wallace and Gromit: The Wrong Trousers. Directed by Nick Park. Aardman Animations

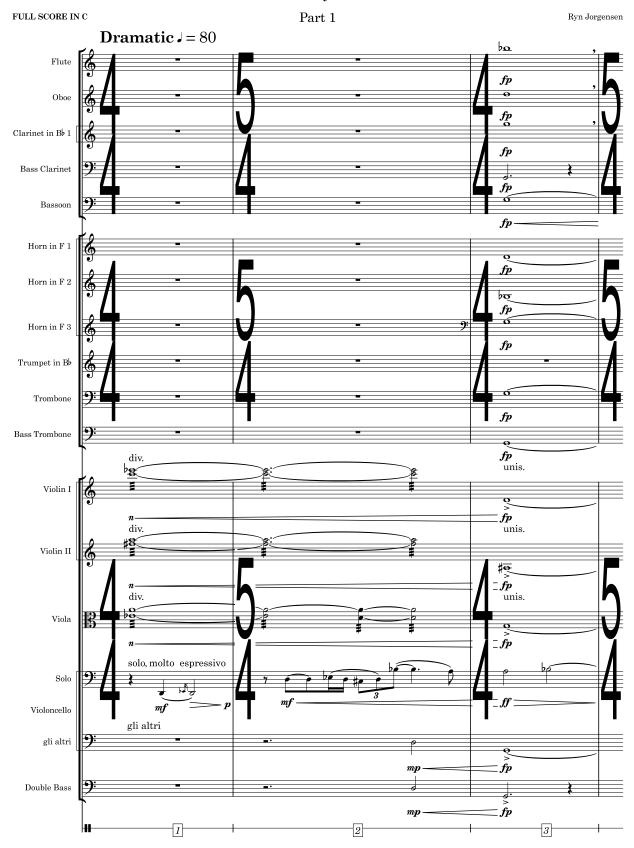Production, 1993. Accessed June 6, 2021. http://youtube.com
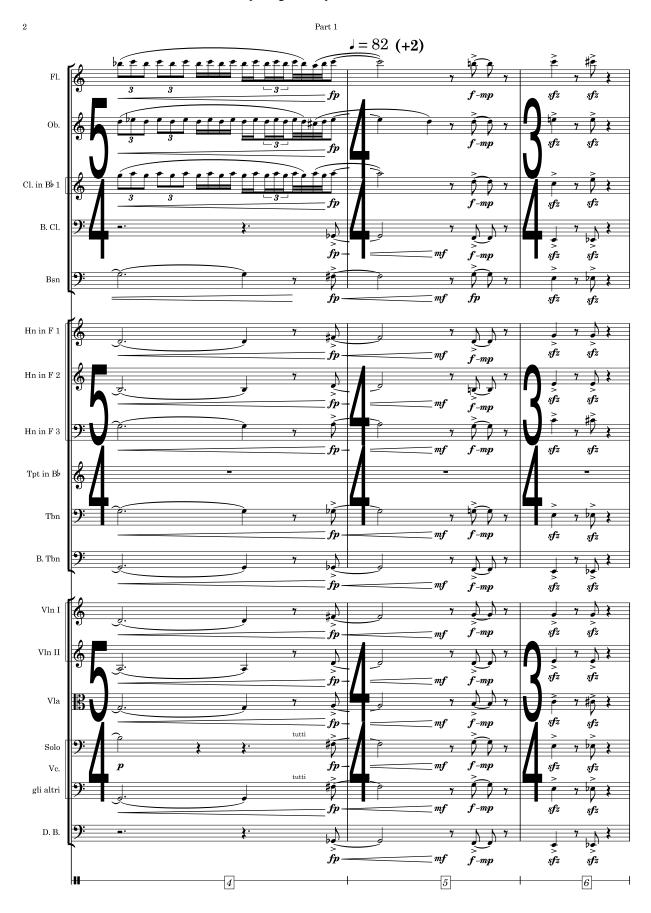
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Appendix A: Score One, Section One, mm. 1-17

This space intentionally left blank to allow for

larger score excerpts.

Note that the full score excludes the violin solo at

mm. 3-9, as it was recorded separately. The part

for the solo has been included at the end of the

Appendix for your reference.

Easy as Pie

Composing for Stop Motion Animation

A03 - Easy As Pie

FULL SCORE IN C

Part 1

Ryn Jorgensen

Easy as Pie

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Part 1

Easy as Pie

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Easy as Pie

Composing for Stop Motion Animation

Solo Violin

Easy as Pie
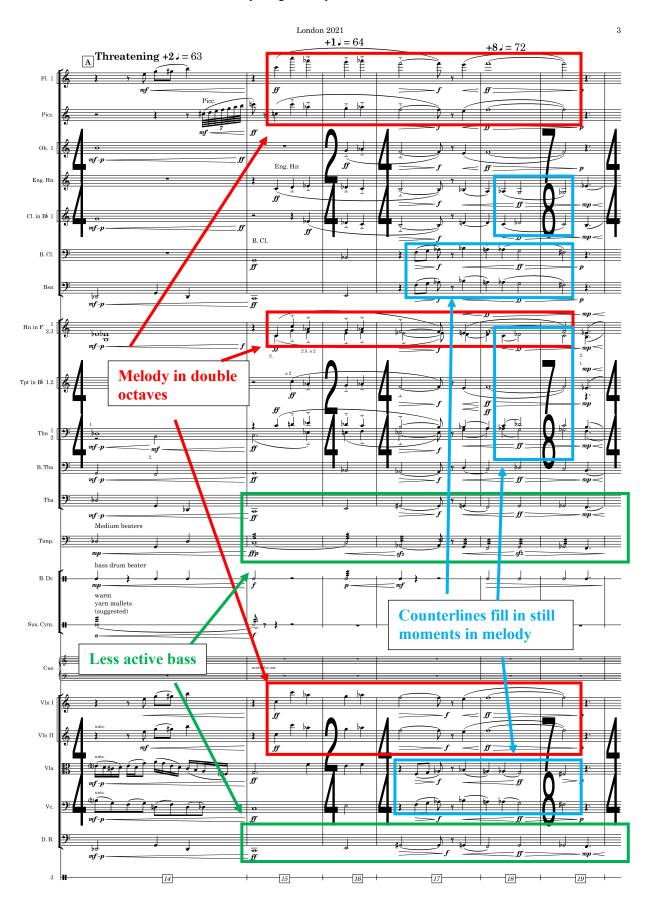
1. Violin Solo (Thank you Isaac!)

N.B. 'Isaac' refers to Isaac Allen, the excellent violinist who recorded this solo, and a friend of mine. As we lived together for a full year, I felt comfortable being slightly informal in my presentation of the part.

Appendix B: Score Two, Sections Three and Four, mm. 14-19, 26 - 52

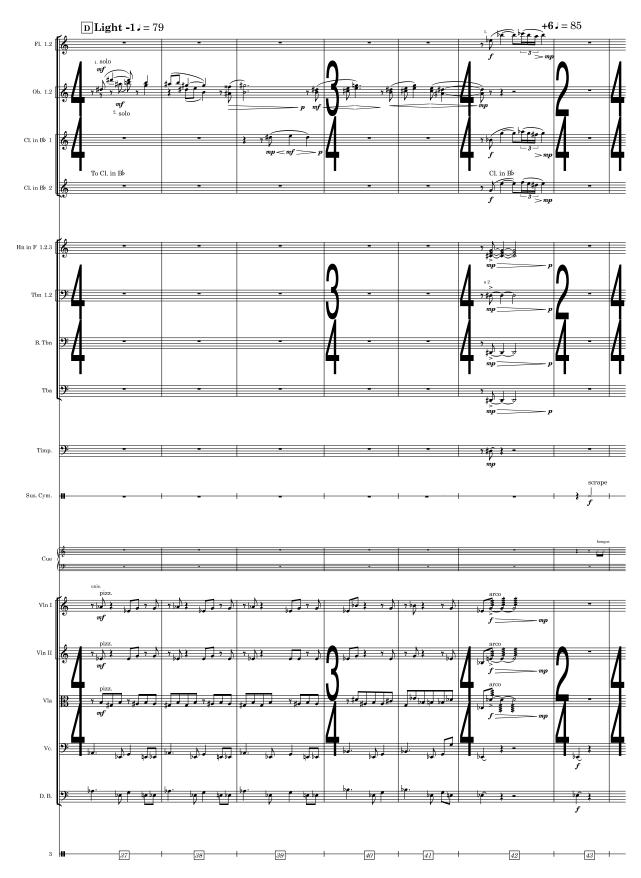This space intentionally left blank to allow for

larger score excerpts.

Easy as Pie

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Melody in double octaves

Counterlines fill in still moments in melody

Less active bass

Easy as Pie

Composing for Stop Motion Animation

London 2021

Easy as Pie

Composing for Stop Motion Animation

London 2021

Easy as Pie

Composing for Stop Motion Animation

Easy as Pie

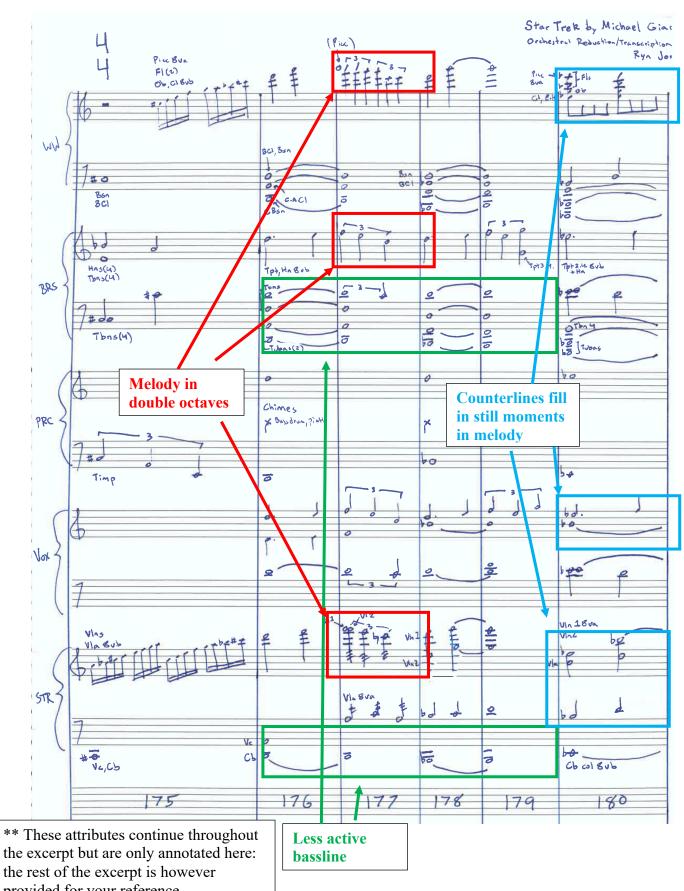## Composing for Stop Motion Animation

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Appendix C: Reduction of Michael Giacchino's *Star Trek*: Excerpts

This space intentionally left blank to allow for

larger score excerpts.

These transcriptions done by hand to allow

additional flexibility in labeling.

Composing for Stop Motion Animation

Melody in double octaves

Counterlines fill in still moments in melody

Less active bassline

** These attributes continue throughout the excerpt but are only annotated here: the rest of the excerpt is however provided for your reference

Composing for Stop Motion Animation

Composing for Stop Motion Animation