Four Original Film Scores

by

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DISSERTATION ABSTRACT

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Doctor of Philosophy in Music Composition

Title: Four Original Film Scores

Film and sound have always been an inseparable topic. Since sound became widely used in films of the 20th century, music has become an important part of storytelling in the movies. This dissertation explores how film music may powerfully narrate the plot of a story, setting off the characters' emotions, and evoking the atmosphere of each scene in different kinds of films. I chose four different cinematic genres and wrote music for them: the comedy film *Twisted*, the drama film *Plastic Fish*, the science fiction film *Irradiation*, and the fantasy film *Tale of the Deaf*. *Twisted* (Australia, 2014) is a comedy film that takes place in a modern disco dance hall. I used instruments, melodies, and rhythms to express the characteristics of disco music. In this film, many individual sequences with unique scene designs occur in a very short time. A crucial aspect of this film is the way in which music is created for short episodes that are continually transforming within the plot. *Plastic Fish* (China, 2016) is a dramatic film that tells the story of a couple. In composing music for this film, I explored how it illuminates many aspects of the visual content: the psychology of the characters' relationships; lighting design; and scene settings. *Irradiation* (Serbia, 2021) is a science fiction CGI animation film that features dramatic transitions and a very oppressive, dark atmosphere. In this film, I focused on how electronic music and electroacoustic music can be combined within sci-fi films. *Tale of the Deaf* (Russia, 2021) is a gothic horror film in which the characteristics of the time period are blurred between the two different visual contexts. In this film, I explored how various musical styles and genres can be layered and unified within the same movie.

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TWISTED

COMEDY FILM (AUSTRALIA 2014)

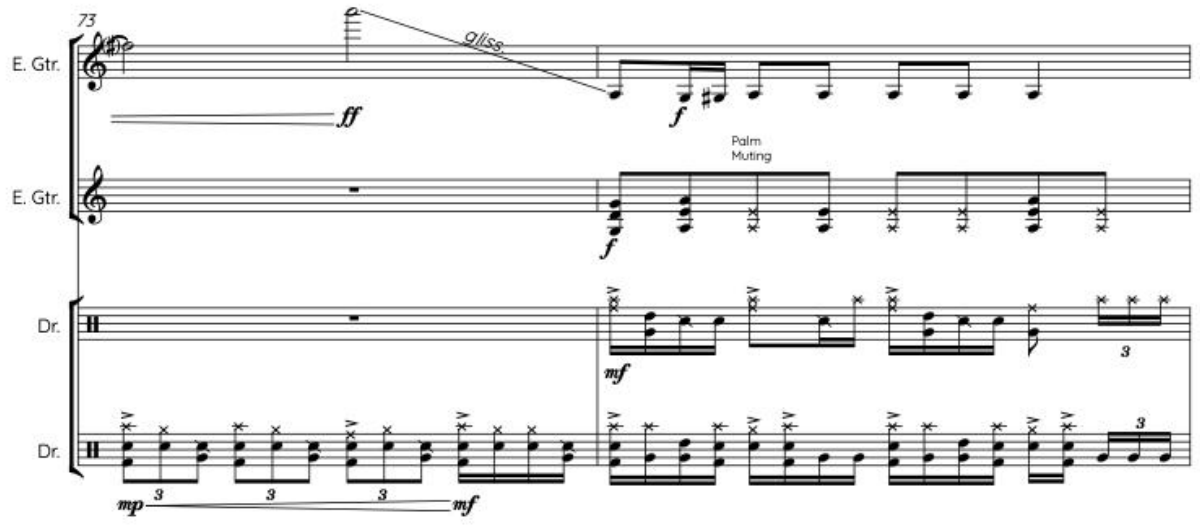
Twisted is an Australian comedy film directed by Stuart Bowen. The story is about two men fighting for the attention of an attractive woman in a balloon-twisting battle. The plot of the story is simple and can be said to be “old school,” but the scene design is very funny and entertaining. You will see many familiar styles of episodes in this short film, some of which resemble a video game, a Western standoff, or even a scene from the movie series titled Transformers.

Since this story takes place in a modern disco ballroom, I chose the disco music style for this film. However, disco is a broad music genre and it is influenced by many different music styles, such as house music, rock music, funk music, blues, jazz, punk and so on. Thus, in this film, I used several styles of disco music based on my general understanding of rock and rock-oriented music. The music is generally “characterized by a strong beat, the use of blues forms and the presence of rock instruments such as electric guitar, electric bass, electric organ or electric piano.”[1] In my film score for *Twisted*, the instrumentation is electric guitar, electric bass, acoustic drum kit, electric drum kit, electric piano synthesizer, and acoustic orchestra.

Whether it was house music, rock music, or funk music, the styles were similar and often in 4/4 time at 120bpm with rhythmic accents frequently shifting back and forth. Sometimes the accent is on the downbeat and sometimes on the upbeat. For example, in the song "Updown Funk” by English and American singer Mark Ronson, the accompaniment is basically upbeat, but it changes to downbeat after the voice enters. A similar combination of upbeat/downbeat is used in the song "New Year's Day" by the Irish rock band U2, where the drum kit keeps the accent on the 4/4 downbeats, but the electric guitar shifts the accent to upbeats. Therefore, for *Twisted*, I wrote disco ballroom music that is generally in 4/4 time at 120bpm for the drum set, while the kick drum is always accenting downbeat within the fixed 4/4 rhythm frame. However, the rhythmic accent of the electric guitar part moves freely—sometimes it's downbeat, sometimes it's upbeat. The electric bass is mainly in octaves, in which the lower note is accented to produce the fundamental bass line. Since the overall rhythm and pitch accents move freely throughout the rhythmic framework, the musical theme seems to “swing” but is never out of control, thus resembling people dancing freely in a disco ballroom.

The movie has a lot of interesting balloon battle scenes, and I created an individual musical theme for each scene. The first one is similar to The King of Fighters, a video game from Japan, where two people stand across from one another in a battle position and throw balloon “weapons” at each other. The actions between them grow more and more aggressive, as the musical rhythms become more accentuated. For example,according to the score below(EXAMPLE #1) the rhythms of the drum set are accelerated, from an eighth note triplet with an accent on the first and third beats, to four sixteenth notes with an accents on the second and fourth sixteenths. The change in intensity of the accents and rhythms makes the audience feel that the battle between the characters is becoming intensified.

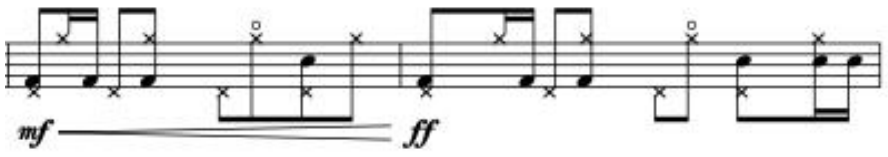
EXAMPLE #1: “Video Game Scene” from *Twisted*.



[1] “Rock,” Encyclopædia Britannica, accessed November 8, 2024, https://www.britannica.com/art/rock-music.

The second battle scene is a duel between "animals", with one man making a puppy out of balloons and the other man making a dragon. Since the puppy is a weak animal in comparison to the dragon, I used lighter sounds in the drum sets for the theme of the dog. For example, the drum set sound is more wooden when compared with the heavy sounds of the rock band drum set. And the electric bass plays music based on a blues scale, which is C-Eb-E-F-F#. When the dragon appears, the music shifts to heavy electric guitars and rock band drum sets. Next, the man who made the “puppy” tries to make peace by creating peace doves with balloons, so I built a melody on perfect fifths played by the orchestra and the electric guitar, symbolizing peace. But immediately, the peace dove is interrupted by timpani and brass, symbolizing war. The other man shoots the dove of peace, and it explodes, falling to the floor; peace has failed, so the war must continue. Next, it turns into a gunfight, and I change the rhythmic accent to mimic the sound of gunfire. According to the score below(EXAMPLE #2), I changed the rhythm of the kick drum from the first beat of every four beats to eighth notes, sixteenth notes in the up beat, and eighth notes in the up beat to mimic the rhythm of the gunshot.

EXAMPLE #2: “Gunfire Rhythm” from *Twisted*.



The melody restates the musical theme of the first battle scene, indicating the escalation of the battle into a Western stand-off. I used the orchestra instead of rock band instruments because I wanted it to create a Hollywood World War musical effect. The orchestra has the capability of playing boldly and much louder in a more serious style than the rock band.

In the final battle scene, the man transforms himself into a balloon, in the same way that the cars become machine-like warriors in the film Transformers; this process of transformation is one of the most exciting scenes in the movie. The music for this scene was inspired by the car-chasing scenes in the Transformers series. I used strings and electric guitar to play the fixed pitch and rhythmic motives, and added many distortion effects for the electric guitar and drum set music. Moreover, I combined these sounds with the effect of the man howling in pain, which pushes the balloon war to its final climax. As soon as the man completely transforms into a balloon, the music stops abruptly, and only a synthesizer melody and heartbeats are heard. Finally, the other man pops the balloon and an explosive sound is heard as the woman screams. The scene immediately shifts to the disco ballroom, where the disco music theme is still playing, as the movie ends.

TWISTED (AUSTRALIA 2014)

ORCHESTRAL INSTRUMENTATION

Flute

Oboe

Bb Clarinet

Bassoon

F Horn

C Trumpet

Trombone

Tuba

Percussion: Timpani; Cymbals; Snare Drum; Tubular Bells

ROCK BAND INSTRUMENTATION

Harp (Synth)

Synthesizer

Electric Guitar I (Synth)

Electric Guitar II (Synth)

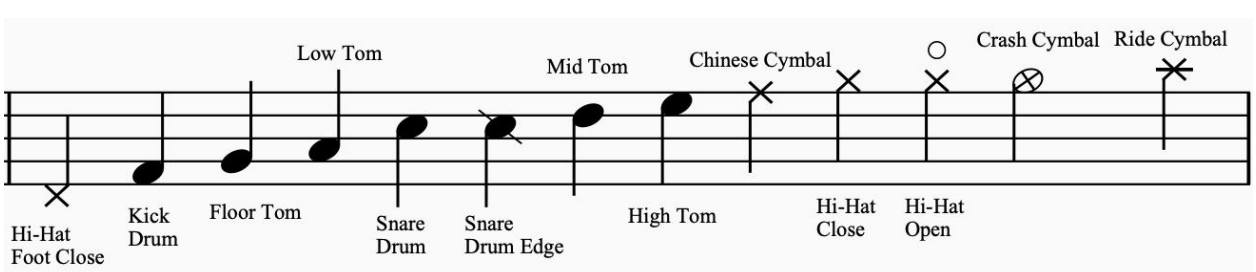
Bass Guitar

Percussion: Hand Clap; Shaker; Woodblock; Bleep

Drum Set

Strings: Violin I; Violin II; Viola; Cello; Contraba

PERFORMANCE NOTE: PERCUSSION NOTATION



Twisted

Score in C

Swing

♩ = 120

Ziwei Wang

Flute

Oboe

B♭ Clarinet

Bassoon

F Horn

C Trumpet

Trombone

Tuba

Timpani

Cymbals

Snare Drum

Tubular Bells

Harp
(Synth)

Synthesizer

Electric Guitar Synth

mp

Electric Guitar Synth

Bass Guitar

♩ = 120

clap

Percussion

mp

Drum Set

p

Drum Set

mp

Violin I

Violin II

Viola

Violoncello

Contrabass

5

Synth.

E. Gtr.

mf

Bass

mp

shaker

Perc.

p

Dr.

mp

Dr.

mp

8

Synth.

E. Gtr.

mp

Bass

p

Perc.

pp

Dr.

p

ppp

Dr.

p

11

Synth.

E. Gtr.

Bass

Perc.

Dr.

Dr.

14

Synth.

E. Gtr.

Bass

Perc.

Dr.

Dr.

17

Synth.

E. Gtr.

pp

Bass

pp

Perc.

pp

Dr.

pp

20

E. Gtr.

Bass

Perc.

Dr.

22

E. Gtr.

Bass

Perc.

Dr.

25

Synth.

E. Gtr.

Bass

Perc.

Dr.

Dr.

27

Synth.

E. Gtr.

Bass

Perc.

Dr.

Dr.

30

Synth.

pp

Bass

pp

Dr.

ppp

Dr.

pp

33

Synth.

Bass

Dr.

36

Synth.

E. Gtr.

pp

Bass

Dr.

39

Synth.

E. Gtr.

Bass

Dr.

pp

pp

42

Synth.

pp

f

E. Gtr.

pp

ppp

Dr.

pp

Dr.

pp

ppp

46

Synth.

f

mf

mf

E. Gtr.

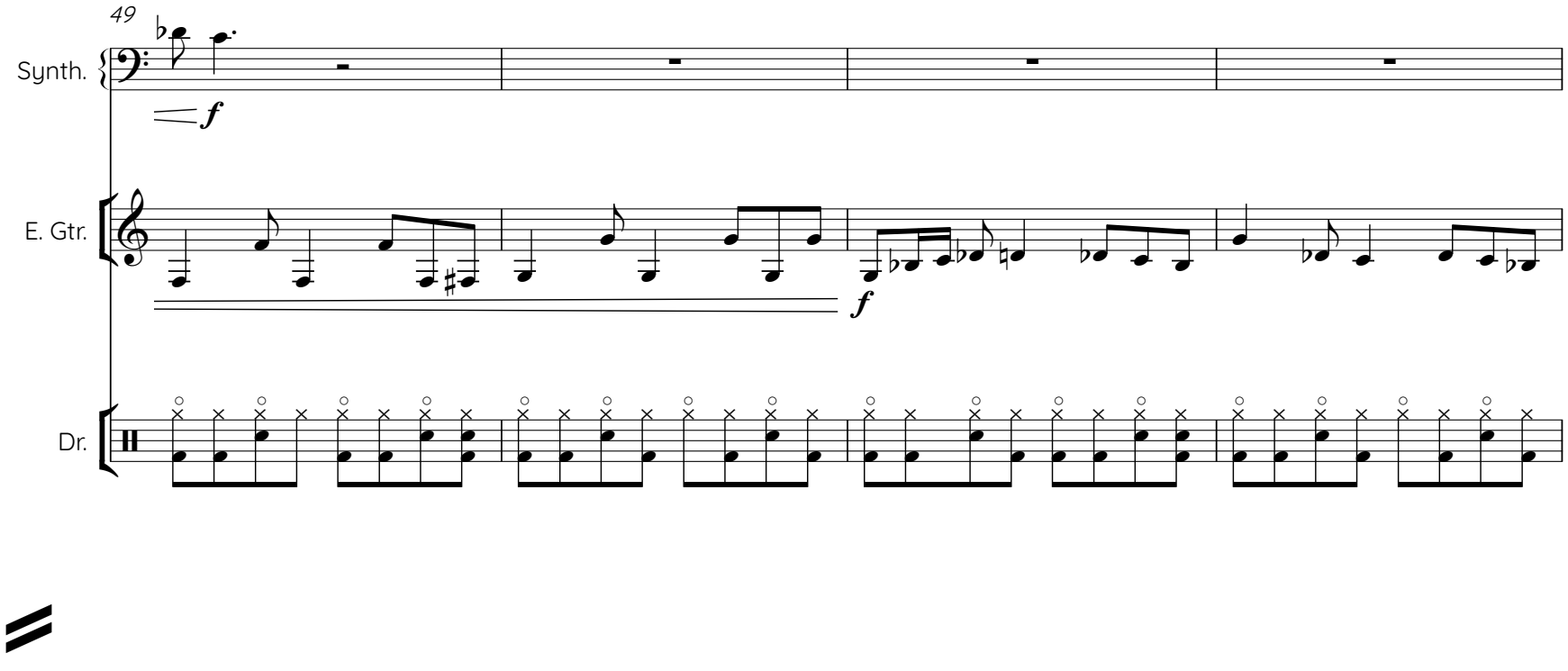
mf

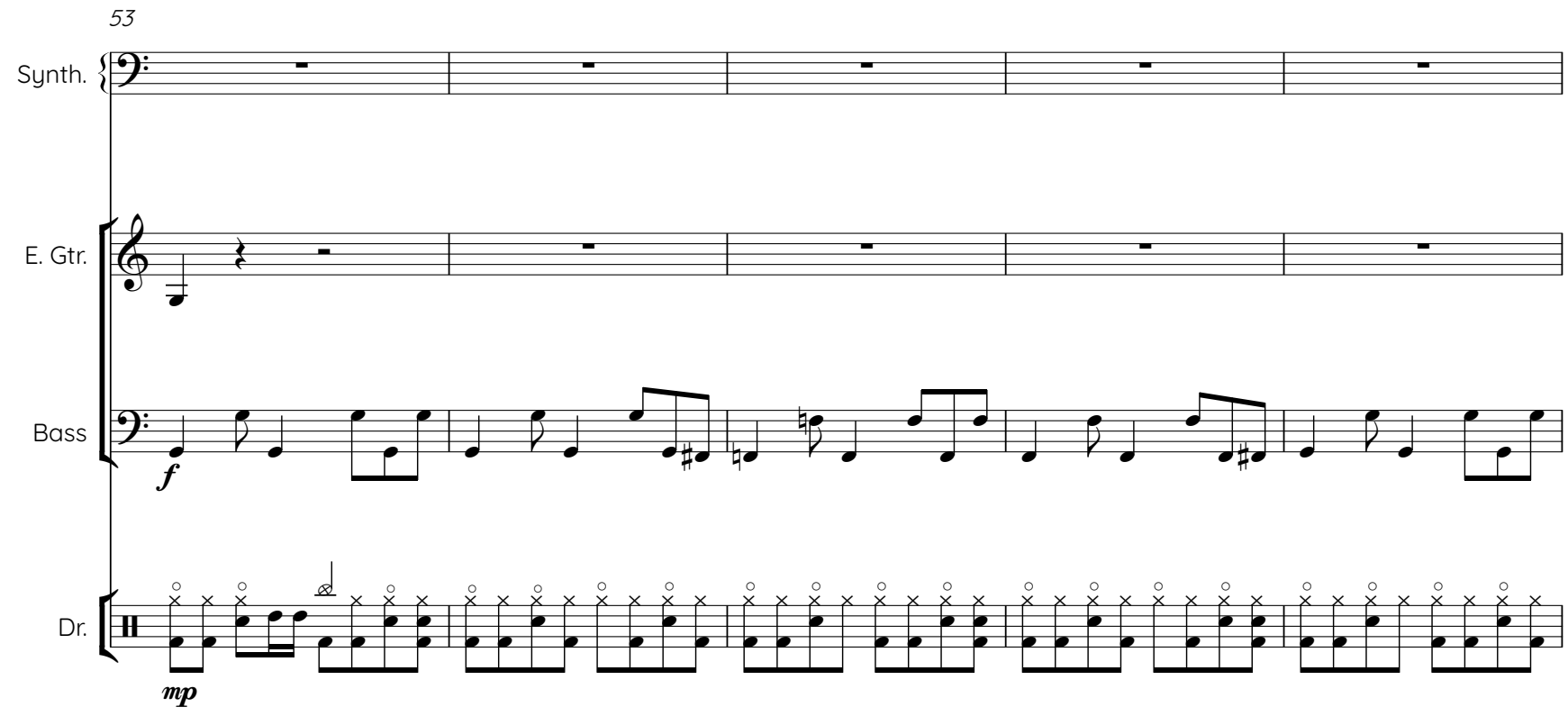
mf

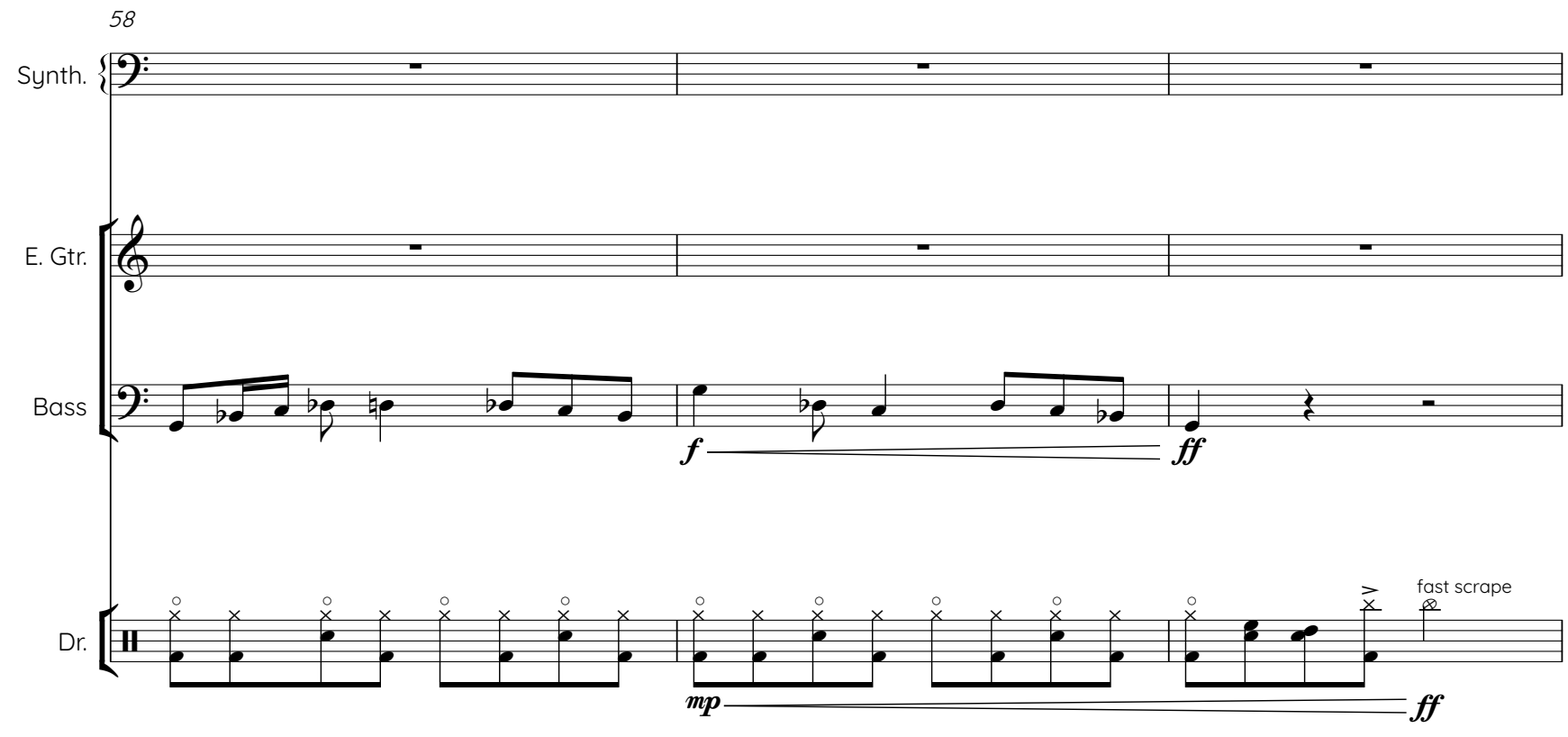
Dr.

mf

Dr.


49
Synth.
f
E. Gtr.
f
Dr.


53
Synth.
E. Gtr.
Bass
f
Dr.
mp


58
Synth.
E. Gtr.
Bass
f
ff
Dr.
mp
fast scrape
ff

61

Hn.

C Tpt.

Tbn.

Tba.

Synth.

E. Gtr.

Bass

Dr.

Vln. I

Vln. II

Vla.

Vc.

mp *f* *ff* *pp* *pp* *f*

66

2'18"

2'22"

Hn.

C Tpt.

Tbn.

Tba.

Synth.

Perc.

woodblock

Mid Taiko

rit.

Dr.

Bass Taiko

rit.

Dr.

Vln. I

Vln. II

Vla.

Vc.

70

Hn.

E. Gtr.

Perc.

Dr.

73

E. Gtr.

gliss.

ff

f

E. Gtr.

Palm
Muting

f

Dr.

mf

3

Dr.

mp

3

3

3

mf

3

75

E. Gtr.

mf

E. Gtr.

mf

Dr.

3

mf

3

Dr.

3

mf

3

77

E. Gtr.

gliss.

mf

ff

E. Gtr.

mf

Perc.

Dr.

3

3

mp

Dr.

3

3

mp

3

3

3

3

79

E. Gtr.

gliss.

p f p

E. Gtr.

ppp

Perc.

Dr.

mp pp

Dr.

82

2'46″ 2'50″

E. Gtr.

fff

Perc.

Dr.

Dr.

84

E. Gtr.

Bass

f

woodblock

Perc.

mf

Dr.

p

86

Bass

Perc.

Dr.

Dr.

pp

88

E. Gtr.

Bass

Perc.

Dr.

Dr.

mp

mf

ppp

8va

fff

p

ppp

90

E. Gtr.

Perc.

Dr.

Dr.

f

93

E. Gtr.

3'12"

3'14"

f

ppp

97

Fl.
Ob.
Cl.
Bsn.
Hn.
Tbn.
Timp.
Cym.
Hp.
(Synth)
E. Gtr.
Vln. I
Vln. II
Vla.
Vc.
Cb.

tr

p mp mf ff

gliss.

pizz.

arco.

104

Fl.
Ob.
Cl.
Bsn.
Hn.
Tbn.
Timp.
E. Gtr.
Vln. I
Vln. II
Vla.
Vc.

108

Bsn.

Hn.

Tbn.

S. D.

E. Gtr.

E. Gtr.

Dr.

Vln. I

Vln. II

Vla.

Vc.

Cb.

112

Bsn.

pp

Hn.

pp

Tbn.

3

pp

S. D.

pp

Palm
Muting

E. Gtr.

mf

E. Gtr.

ff pp

Dr.

mf

Dr.

mf

116

E. Gtr.

clap

bleep

Perc.

mf

Woodblock

mf

Dr.

Dr.

119

E. Gtr.

mf

p

E. Gtr.

mp

mf

Perc.

bleep

bleep

pp

Dr.

mf

pp

Dr.

mf

pp

122

E. Gtr.

ff

E. Gtr.

ff

Perc.

Dr.

mf

Dr.

127

Fl.
Ob.
Cl.
Bsn.
Hn.
Tbn.
S. D.
Tub. B.
Dr.
Dr.
Vln. I
Vln. II
Vla.
Vc.
Cb.

133

Fl.
Ob.
Cl.
Bsn.
Hn.
Tbn.
Timp.
S. D.
Tub. B.
Synth.
E. Gtr.
Vln. I
Vln. II
Vla.
Vc.
Cb.

138

Fl.

Ob.

Cl.

Bsn.

Hn.

Tbn.

S. D.

Synth.

E. Gtr.

Vln. I

Vln. II

Vla.

Vc.

Cb.

142

Fl. *ff*

Ob. *ff*

Cl. *ff*

Bsn. *ff*

Hn. *ff*

Tbn. *ff*

S. D. *f*

E. Gtr. *ff*

Perc. *mf*

Dr. *mf*

Vln. I *ff*

Vln. II *mf*

Vla. *mf*

Vc. *mf*

Cb. *mf*

145

S. D.

Synth.

E. Gtr.

Perc.

Dr.

Vln. I

Vln. II

Vla.

Vc.

Cb.

148

Synth.

Perc.

Dr.

Dr.

158

Synth.

E. Gtr.

mp *mf*

Bass

mp

clap

shaker

Perc.

mp *pp*

Dr.

p *mp*

Dr.

mp

163

E. Gtr.

Bass

Perc.

Dr.

Dr.

167

E. Gtr.

Bass

Perc.

Dr.

170

E. Gtr.

ppp

Bass

ppp

Perc.

ppp

Dr.

Dr.

ppp

PLASTIC FISH

DRAMATIC FILM (CHINA 2016)

Plastic Fish is a Chinese dramatic film directed by Wu Chengcheng. The movie tells the story of an energetic and perfection-seeking old lady and her husband, who suddenly falls seriously ill, and in a later scene, a doctor says that he has only a short time left to live. The elderly lady has trouble adjusting to life without him and after he dies, she makes him into a specimen of human taxidermy so that she can pretend that he is still alive with her.

Film music is a comprehensive art and composers need to consider not only the music itself, but they need to pay attention to the plot, the actors' body movements, their expressions, and their psychology. They also need to analyze the visual content of the film frame-by-frame, including film editing, scene design, lighting, and even color. The style of the photography and coloration of *Plastic Fish* is very special. Its overall cinematographic style resembles an oil painting in its thickness and texture. In particular, the credit pages at the opening and ending are as gorgeous and richly colored as the overture to an opera. The use of color in the film also features this high saturation, and the scene design also features high saturation of color on objects such as balls of yarn, decorative ornaments, feathers, oil paintings, old photos, bottles of chemical reagents, etc. They all seem to suggest to the audience how the drama will unfold, and how the story and the plot trajectory of the narrative and of the two main characters.

In the process of creating music that complements this visual style, I have referenced classical opera in my choice of instrumentation, which features string quartet, piano, and oboe. The style of the opening music resembles a classical operatic overture and begins in A major. The dramatic descent of the piano figuration at the beginning and the density of rhythm with its heavy accentuation in the strings represent the energetic nature of the female character. The oboe's long, lyrical melodic lines foreshadow the tragic undertones of the story. In the beginning, I have scored the film in 3/4 as a way of embodying this woman's life story as a cinematic dance drama.

In my understanding of composing for film, the music is frequently composed as a second storyteller, which conveys the story in a way that cannot be done by visual images alone. In other words, film music can tell the story from different viewpoints, such as the subjective first-person and objective third-person perspectives. This can facilitate the audience’s understanding of a character’s personality within the unfolding plot of the story. In *Plastic Fish*, I chose to compose music that reflects the elderly woman’s changing moods, thus expressing her own perspective.

The first half of the film is brightly colored and portrays the leisurely life of an elderly couple living together in harmony. The woman takes care of her husband and tends her garden, which appears to be thriving and vibrant. This is a picture of contented domestic life and the music is mainly composed of major harmonies and simple melodies depicting a home that is full of sunshine. When the woman walks to look at the rabbit specimen, the oboe plays semitone melodies and harmonic colors that are no longer so bright. This creates a strange atmosphere that foreshadows later developments of the plot, and reveals the subconscious and paranoid side of the elderly lady's personality. However, when the camera turns to the husband, it immediately reverts to the pleasant garden music theme. Then the woman notices a dead part of a potted plant in her garden as the ensemble stops playing and then makes a dramatic crescendo from silence to forte, thus describing her sudden nervousness. Now the woman smiles because everything is perfect again and the music reflects this by returning to the sunny garden theme.

The camera turns to the room where the woman is standing in front of her desk, talking to herself about her plans for the day. She is always talking to herself and the husband doesn’t respond to her. The music always follows the woman's energy, but when her husband drops his newspaper to the ground, she becomes anxious and the music reflects her changing mood until she decides to go shopping and leaves the home.

When the woman returns from the store, she discovers that the man has fainted, and from this point onward, the music is uneasy and sorrowful. The piano plays a repeated high octave (C6 to C7), which sounds like a ticking clock, indicating that the husband is living on borrowed time.

Upon knowing that her husband's lifetime is running out, the woman suddenly has a creepy idea. Suddenly, the camera cuts to a new scene in which she is busy at her desk, and she has returned to her previous vitality, however now she is preoccupied with a strange idea. This new music is in 7/8 time signature, and the tempo is 170 bpm. For this music, I loop a group of three sixteenth notes, which creates a sense of urgency that seems both full of energy and anxious about accomplishing a task. She doesn't stop her forward momentum until she picks up a glass ornament and stands in front of the window lost in thought. For this scene, I have composed a melancholy oboe melody that conveys her mood, which foretells tragedy.

In the film score, in addition to using music to describe the inner activities of the characters, it is also very important to accurately depict the movements of the camera and cinematographic design. For example, at 12:01 in the film, there is a set of very bizarre shots, when the woman sits in front of the bathtub all night. At dawn, she stands up and begins to clean the bathtub as dazzling sunlight shines through the window, straight into the screen. The woman's body becomes blurred in the backlight, and then the sunlight glares on the bathtub and the hands of the woman, however there are only a few shots of her face.

The general atmosphere of the scene is very warm, like the arrival of a new day, but the camera work also projects an indescribably strange atmosphere. To express this, I scored the strings playing continuously dissonant intervals, such as the major second and diminished fifth in pianissimo. While the piano plays melodies based on augmented triads and chromatic scales, the oboe plays melodies based on dissonant intervals. These dissonant melodies are played until the elderly lady is back at the table where she was sitting during the first scene of the film. This scene strongly contrasts with the first scene of the film, but is different in light, color, and character expression. To reflect this change from comedy to tragedy, the music is a variation of the first scene when the strings played pizzicato at 120 bpm. In this later scene, the same melody is played, but the tempo is reduced to 80 bpm and pizzicato is changed to legato.

In film music, the opening and closing credit pages feature either new music or rearranged music from the film itself. In *Plastic Fish*, I noticed that the images on the final credit page feature the same objects as the opening credit page of the film, but the difference is that these objects are covered with spider webs and dust, which suggests the deterioration of the home as a reflection of the fate of the elderly woman. In most of the film, she exhibits a passion for life, and never lets the house become dirty or shabby. However, after her husband's death, she has become devastated and maybe, she has even left their home. To suggest this, I composed the music for the end credits in the manner of a flashback. It begins with the sad music at the end of the movie, followed by the music when she is mixing chemicals, then the garden theme, and finally a return to the music of the overture. The final credits end with the descending piano scale from the film's opening credits, thus forming a closed loop from the beginning to the ending of the film. This entire progression of recapitulated themes form a flashback of memories from the woman's life, and her descent into loneliness and sorrow.

PLASTIC FISH (CHINA 2016)

INSTRUMENTATION

Piano

Oboe

Violin I

Violin II

Viola

Cello

Plastic Fish

Ziwei Wang

A

Brillant

♩ = 120

Oboe

Piano

f *mf*

A

♩ = 120

Violin I

Violin II

Viola

Violoncello

pp *mf*

5

Ob.

Pno.

mp 6 *f*

Vln. I

mf *f*

Vln. II

Vla.

p *mf*

Vc.

9

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

13

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

18

Ob.

Pno.

Vln. I

mf

Vln. II

p *mf*

Vla.

p *mf*

Vc.

mf

22

Ob.

f

Pno.

f *ff* *f*

Vln. I

f *f*

Vln. II

f *ff* *mf ff mf ff mf* *mf*

Vla.

f *ff mf ff mf ff mf f*

Vc.

f *f*

26

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

29

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

33

Ob.

f

Pno.

mp

Vln. I

Vln. II

mp

Vla.

mp

Vc.

36

Ob.

p

pp

Pno.

pp

Vln. I

mf

p

pp

Vln. II

p

pp

Vla.

p

pp

Vc.

p

pp

41

B

Ob.

pp

Pno.

pp

B

Vln. I

pizz.

mp

Vln. II

pizz.

mp

Vla.

pizz.

mp

mf

Vc.

pizz.

mp

mf

50

Ob.

Pno.

Vln. I

Vln. II

Vla.

pizz.

mp

Vc.

pizz.

mp

55

Ob.

Pno.

1‘45“

Vln. I

Vln. II

Vla.

Vc.

mp

mf

C

Fresco

61

Ob.

Pno.

mp

mf

C

Vln. I

Vln. II

arco.

Vla.

pizz.

Vc.

67

Ob.

Pno.

f *mf*

arco.

Vln. I

mp

Vln. II

mp

arco.

Vla.

mp *mf*

arco.

Vc.

mp *mf*

71

Ob.

Pno.

mp

Vln. I

mf *f* *mp*

Vln. II

mp

Vla.

mp

Vc.

mp

75

Ob.

Pno.

mp mf

Vln. I

mf f mf f mf f mf mp

Vln. II

mf f mf f mf f mf mp

Vla.

mf f mf f mf f mf mp

Vc.

mf f mf f mf f mf mp

79

Ob.

Pno.

mf mp

Vln. I

mf f mf f mf f mf mp

Vln. II

mf f mf f mf f mf mp

Vla.

mf f mf f mf f mf mp

Vc.

mf f mf f mf f mf mp

83

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

mp

pizz.

89

arco.

mf *f* *mp*

97

D

2'37"

Ob.

pp

f

mp

Pno.

pp

mp

D

Vln. I

n

f

Vln. II

Vla.

mp

Vc.

mp

105

Ob.

mp

pp

Pno.

Vln. I

Vln. II

Vla.

mp

pp

arco.

Vc.

mp

pp

E

3'12"

114

Ob.

Pno.

E

Vln. I

Vln. II

Vla.

Vc.

121

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

128

Ob.

Pno.

mf *f* *mp*

Vln. I

mp

Vln. II

mp

Vla.

mp

Vc.

mp

134

Ob.

Pno.

mf *mp* *mf* *mp*

Vln. I

mf *f* *mf* *mf* *f* *mp*

Vln. II

mf *mp*

Vla.

mf *mp*

Vc.

mf *f* *mf* *mf* *f* *mp*

139

Ob.

Pno.

mp

mf *p*

Vln. I

mf *p*

Vln. II

mf *p*

Vla.

mf *p*

Vc.

mf *p*

F

4'04"

Anxious

146

Ob.

Pno.

mp

mf

mf

F

Vln. I

Vln. II

Vla.

Vc.

153

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

rit.

f

p

f

p

f

p

ffff

G

4'54"

Anxious

159

Ob.

Pno.

f

G

Vln. I

Vln. II

Vla.

Vc.

p

ff

p

ff

p

ff

p

ff

p

ff

p

ff

n

mf

H

165

5‘15“ **Dolente**

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

ppp

f

p

mp

H

173

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

p

p

p

ppp

180

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

187

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

I

6'11"

192

♩ = 70

Ob.

mp

Pno.

mp f

mp f

I

♩ = 70

Vln. I

Vln. II

pp

Vla.

pp pp

Vc.

pp pp

198

Ob.

mp ppp

Pno.

mp f

mf

Vln. I

ppp

Vln. II

ppp

Vla.

ppp

Vc.

ppp

205

Ob.

Pno.

pp

Vln. I

Vln. II

Vla.

ppp

Vc.

212

Ob.

Pno.

pp

mp

Vln. I

Vln. II

Vla.

Vc.

ppp

J

7'42"

219

♪ = 170 **Animando**

Ob.

Pno.

f *mf* *mf* *mf*

Ped.

J

♪ = 170

Vln. I

Vln. II

Vla.

Vc.

f *mf*

221

Ob.

Pno.

f *mf* *f* *mf* *mp*

Vln. I

Vln. II

Vla.

Vc.

f *mf* *pp* *f* *pp* *f* *mp* *pp* *ff*

224

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

227

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

230

flute-like

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

233

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

236

Ob.

Pno.

f *pp*

Vln. I

f *pp*

Vln. II

pp

Vla.

pp

Vc.

239

Ob.

f *mf* *pp*

Pno.

f *mf* *mf* *pp*

Vln. I

f *mf*

Vln. II

f *mf*

Vla.

f *mf*

Vc.

f *mf*

243

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

mp

mp

p

K

Hopeless

250

♩ = 56

Ob.

Pno.

p

K

♩ = 56

Vln. I

Vln. II

Vla.

Vc.

pp

257

10'50"

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

p

p

mf

pp

L

266 **Sorrowful**

Ob.

p

Pno.

p

L

Vln. I

Vln. II

Vla.

Vc.

pp

pp

272

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

mp *pp*

mp *mp*

pp

ppp

ppp

M

Quirky

279

♩ = 80

Ob.

Pno.

mp *f* *mp* *mp* *f* *mp* *mp* *f*

M

♩ = 80

Vln. I

ppp

Vln. II

ppp

Vla.

Vc.

285

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

mf

mp *f* *mp* *mp* *f* *mp*

p

290

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

mf

mp *f* *mp* *mp* *f* *mp*

294

Ob.

Pno.

mp f mp p pp

Vln. I

Vln. II

Vla.

Vc.

ppp

300

N

Ob.

Pno.

mf f mf mf f mf

N

Vln. I

Vln. II

Vla.

Vc.

pp

305

Ob.

mf

Pno.

mf

Vln. I

Vln. II

Vla.

Vc.

312

Ob.

mf

ppp

Pno.

Vln. I

Vln. II

pp

Vla.

pp

Vc.

mp

pp

317

Ob.

Pno.

mf f mf mf f mf

Vln. I

Vln. II

Vla.

Vc.

323

Ob.

mp

Pno.

p p

Vln. I

Vln. II

ppp

Vla.

ppp p mp

Vc.

p mp

328

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

335

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

342

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

mf mp mf mp mf mp pp mp pp mp

349

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

p mp pp pp pp pp

355

Ob.

p

Pno.

mf

Vln. I

Vln. II

Vla.

Vc.

360

O

Ob.

mp

Pno.

mf

O

Vln. I

mp

Vln. II

mp

Vla.

mp

Vc.

mp

365

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

369

Ob.

f

Pno.

f

Vln. I

f

Vln. II

mf

Vla.

mf

Vc.

mf

372

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

376

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

380

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

385

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

389

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

p *mf* *mp* *p* *p* *p*

394 ♩ = 120

Ob.

Pno.

Vln. I

Vln. II

Vla.

Vc.

f *mp* ♩ = 120

IRRADIATION

SCI-FI FILM (SERBIA 2014)

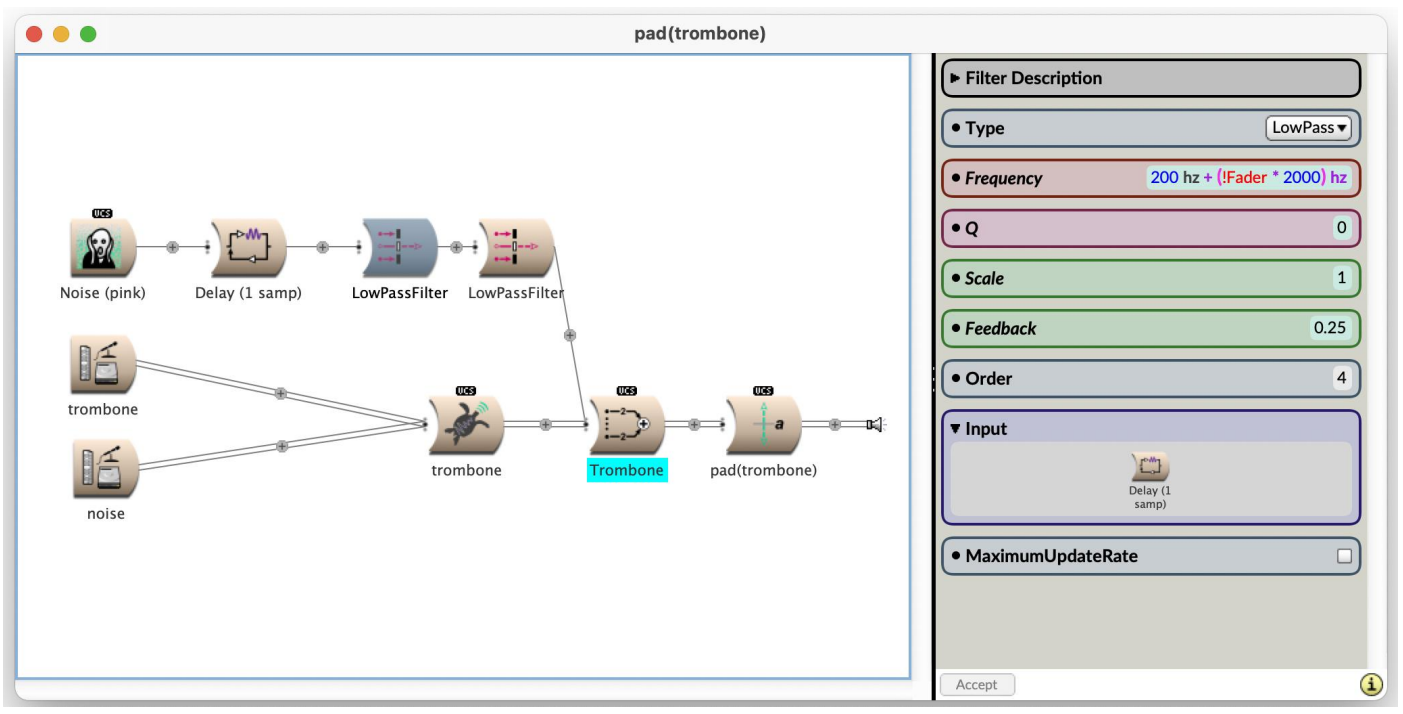
Irradiation is a Serbian science fiction film directed by Sava Zivkovic. It tells a story of one man's struggle to stay alive while having experiences of both the real world and hallucinations of the surreal. Upon being escorted by soldiers to a mysteriously irradiated site, and after experiencing strange visions, the man awakens in an unexpected, new world.

The music for this film is inspired by the film Silent Hill because they have a similar misty and uneasy atmosphere, monsters hiding in the dark, panicked humans constantly running away, and so on. Before creating this film music, I analyzed the visual tone of the film, including film coloration, plot, emotion of the characters, scene design, and so forth. After analysis, I concluded that this film has a very dark tone, and the overall emotion of the characters is upset and anxious, and the scene design is mainly dominated by dilapidated objects, such as the charred forest, the wreckage of the crashed plane, the human body in the plane, and the unidentified objects composed of metal boxes that are gyrating in the air. To reflect this dark tone, I mainly used electronic music and sound design, which I primarily produced using Symbolic Sound's Kyma (a sound design workstation) and Apple's Logic Pro (a digital audio workstation). I have made extensive use of acoustic instrumental sounds that have been transformed by combining them with electronic and synthesized sounds to express the emotional atmosphere of the plot.

Electronic music composition is different from acoustic music composition. In traditional acoustic music, melody, harmony, and rhythm are the main musical materials used by composers. In electronic music composition, the sound itself is the most important material used by the composer, and these sound materials are developed through frequency, amplitude, location, duration, and timbre. The samples in the sound design were mostly sourced from acoustic instruments. For example, one of the main sound modules that I used throughout the film is a rumbling sound. I created a sound sample of a trombone playing C2 and I combined it with modulated pink noise, through the cross filter_long module in Kyma to form a distorted continuous bass line.

At the beginning of the film, the protagonist Evgeniy stands alone in the heavy fog. To express a feeling of emptiness, in addition to the bass line mentioned above, I added the low pass filter fader to control the cut-off frequency of pink noise. As notated in the diagram of the patch below (Example #1), I set two low-pass filters, one of which sets the frequency at 3700 Hz, which means that all frequencies higher than 3700 Hz will be cut off, so that the overall sound of pink noise will not be too harsh and clear.

EXAMPLE #1: "Trombone Pad Sound" Kyma signal flow and parameter fields from *Irradiation.*

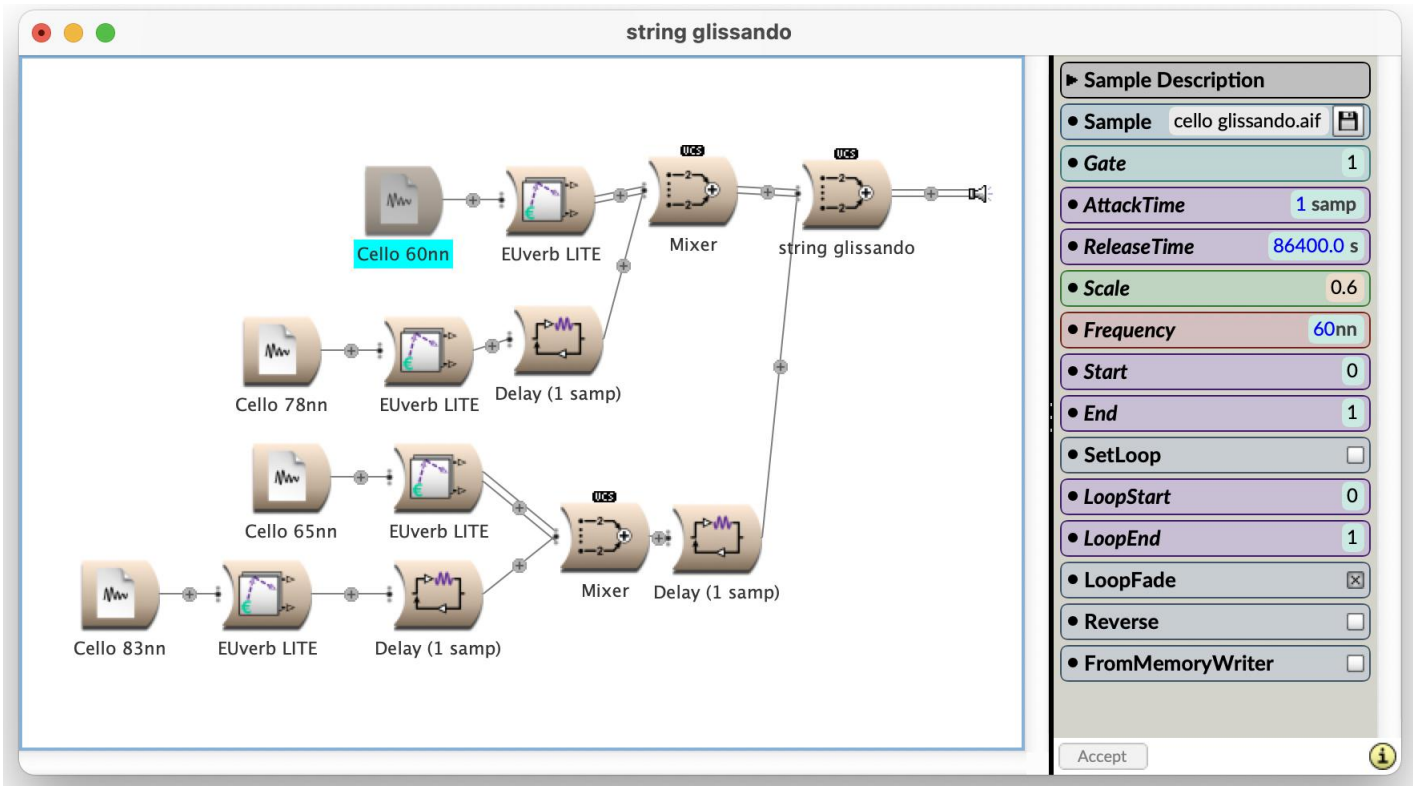


In addition to the modulated pink noise, I added another low-pass filter, which I set to a frequency of "200 Hz + (!Fader * 2000) Hz", and this capytalk means that the frequency of 200 Hz is added to the value of fader, which has a range from 0 to 2000 Hz. The result of this math is the cut-off frequency, which will trigger the real-time movement of the fader, also changing the noise frequency. This result of this process sounds like blowing wind with frequently changing dynamics.

When the team of soldiers is walking through the wilderness before entering the forest, I added the sound of an acoustic cello playing glissando as the continuous bass line. However, there is a big difference between acoustic instrumental sound and electronic sound made directly by a computer. I changed the frequency and reverb of the acoustic cello to sound more like the electronic sound.

For example, from a sound library, I took a cello glissando starting from C4 (middle C), and modulated its frequency to 60-note number, 65-note number, 78-note number, and 83-note number, respectively. In making this mechanical modulation, the acoustic instrument has lost part of its identity. Next, I added reverb to the modulated cello glissando so that the acoustic instrument sounds more electronic in nature, as indicated in the patch below (Example #2).

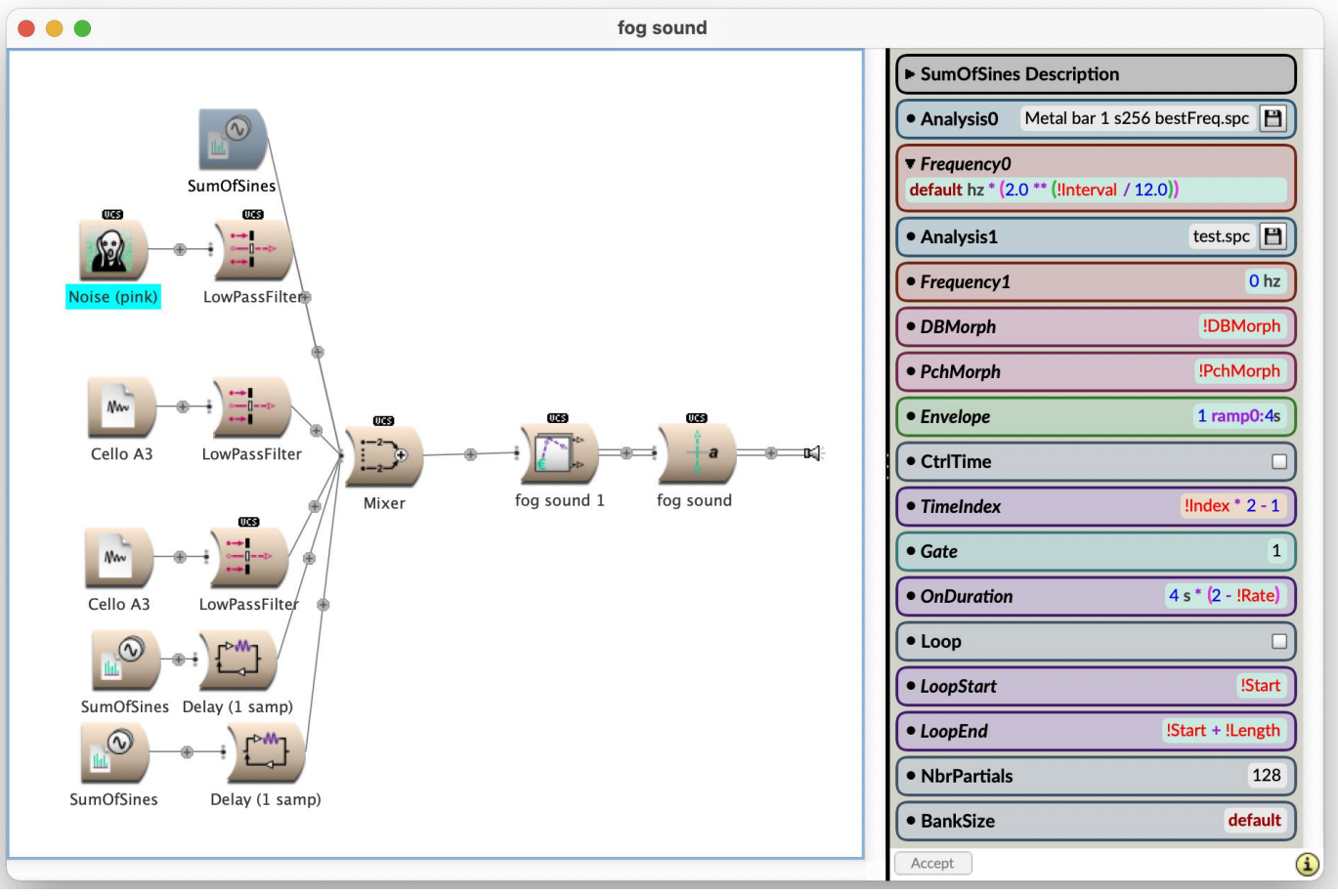
EXAMPLE #2: "String Glissando Sound" Kyma signal flow and parameter fields from *Irradiation.*



The sound materials in this film are not only taken from acoustic instruments, but also from some real recordings of the real world, which have been electronically processed. For example, many scenes in the film feature the main character and the team walking through the misty forest. The sound I created for these scenes was developed by using the sound of clinking metal chains, the acoustic cello, and pink noise. First, the sound of the metal chains was decomposed by spectral analysis to show all of the parameters contained in the metal chain sound, and then I used the "SumOfSines" module to adjust each of the parameters. I put a four-second crescendo in the envelope of this sound material, and copied the same sound three times and used the "Delay" module to create a canonic metallic texture sound.

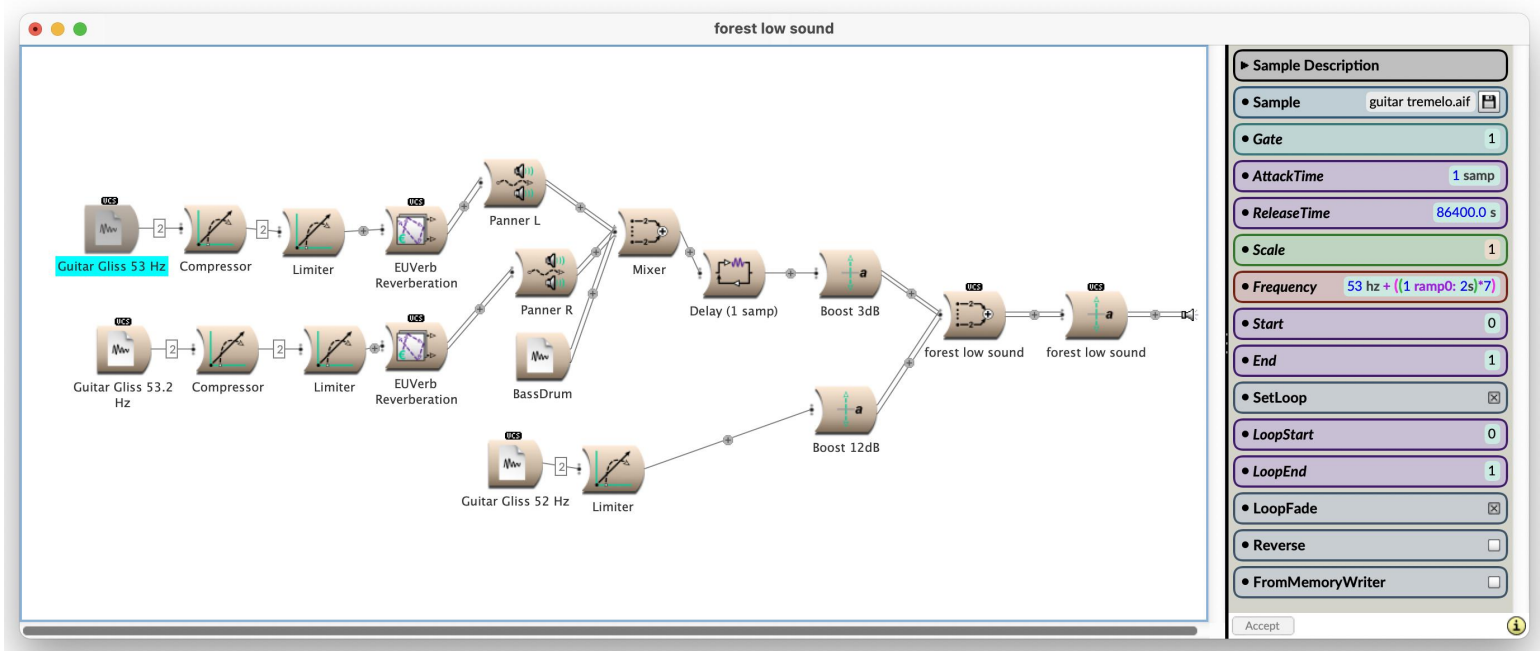
However, in human hearing, people tend to be extremely sensitive to sounds with specific pitches. For example, when a person is in a noisy environment like an airport lobby, there is often a short signal of one or two pitches before an announcement to attract people's attention, and as soon as they hear it, they automatically block out the ambient sound and focus on the pitched signal. Therefore, in the music for the fog scene in *Irradiation*, I used three sound materials: pink noise; metal chains (recorded live); and acoustic cello. I put the pink noise and metal chains in the ambient background sound and I used the acoustic cello to play the pitch signal in the foreground, which was produced by cutting off the high cello frequency to get the audience's attention, thus making them feel the anxiety of Evgeniy, the main character. Please see the diagram below (Example #3) for the patch that I used to create the sound world for the fog scene.

EXAMPLE #3: “Fog Sound” Kyma signal flow and parameter fields from *Irradiation.*



In traditional acoustic music, composers often layer the music into upper, middle, and lower parts, and the same happens in electronic music composition. In the music of the misty forest, the sound components mentioned above are established as follows: the pitched cello in the upper part, and the ambient sound comprised of noise and the metal chains in the middle part. I made the lower part with a different set of sound components. The image below (Example #4) shows how this sound component was developed from a guitar tremolo in the 53 Hz frequency. Then I changed the timbre of the sound by adding two dynamic range controllers, a compressor and a limiter, and turning the same material up by only 0.2 Hz and then placing the two sounds in the left and right channels respectively. Thus, I was able to create a low, roaring sound by combining the following: low frequency sound material with an unreal-sounding timbre in a vast sense of space produced by applying many reverbs to this composite sound. Finally, I put the materials in the right and left channels to create a low roar emanating from the depths of the forest.

EXAMPLE #4: “Forest Low Sound” Kyma signal flow and parameter fields from *Irradiation.*



There are numerous dramatic transitions in the film. Every transition is crucial and the film composer must pay close attention to how it is expressed. For example, in the 0'30" of the film, when Evgeniy is deeply immersed in his fantasy, the voice of the soldier behind him interrupts and returns to three-dimensional reality. This is scene moves from the unreal to the real, giving a feeling of increasing intensity, whether it is the tension between the characters or the movement of the monster composed of metal boxes. Therefore, in addition to superimposing more ambient sound and the metal box sounds as the camera shifts its position, I used the

recorded sound of a bass drum that was played in retrograde, which immediately stops as the action of the film transitions into the real world.

In addition to this sudden transition, there are also many transitions of explosive energy. They may be found at following time points: at 0’59", when a group of people walking in the wilderness suddenly appears in front of a huge burned forest; at 3’29", when Evgeniy suddenly has a hallucination while walking in the forest, seeing a group of gyrating metal boxes in front of him; and at 8’38”, when the metal box monster leaves and Evgeniy takes off his mask to breathe. Then the camera turns and the soldiers who forced him to walk closer and closer to the monster are all dead. The monster has apparently left and bright sunlight shines into the forest. For the three representative scenes mentioned above, I have used acoustic orchestral instruments to play music in tutti with very strong dynamics. I modified the acoustic orchestral sounds using sonic transformation processes in Kyma, which makes the sound feel close to the audience. The aural impact of these sounds creates an even more striking transformation into these three horrifying images.

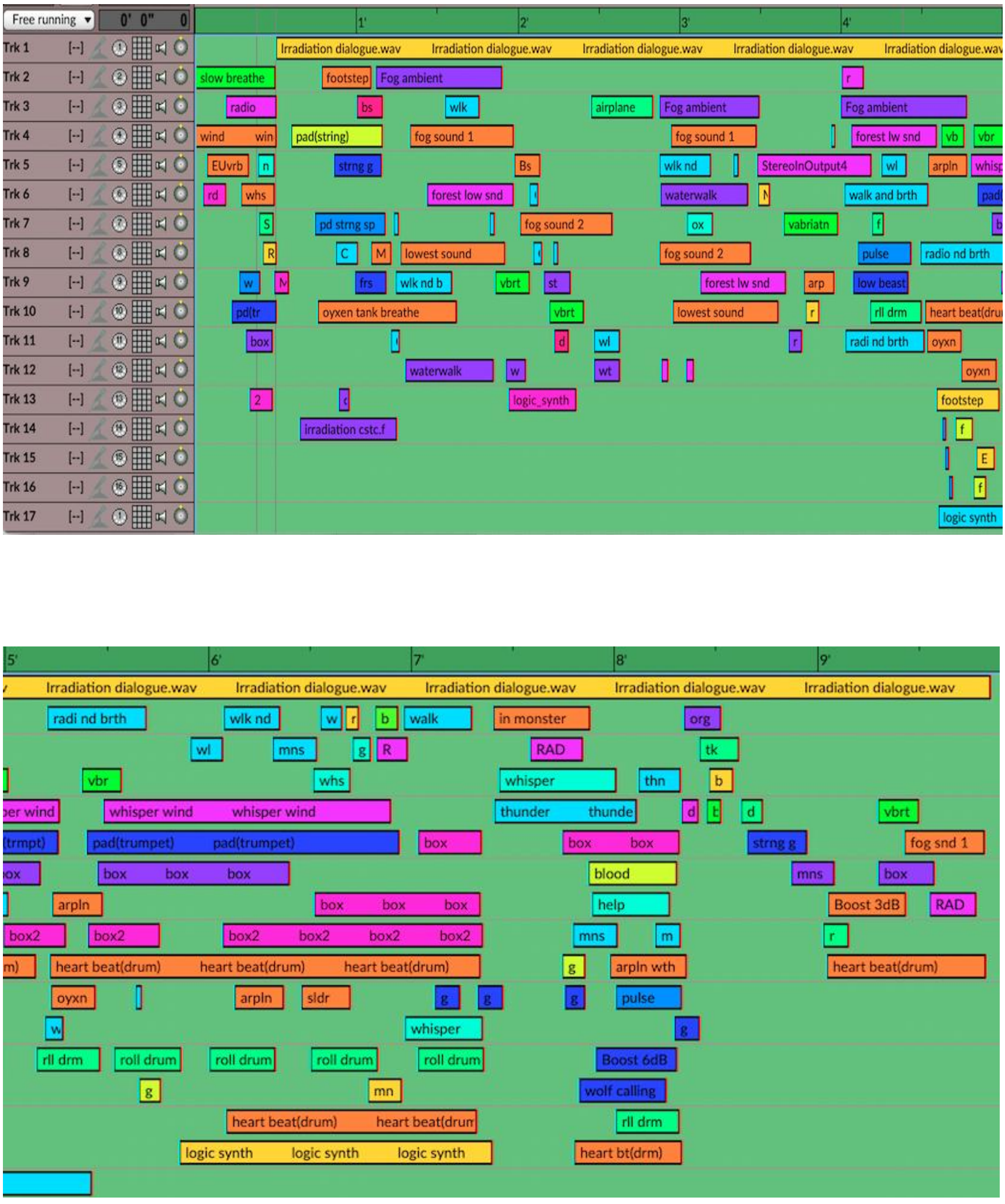
IRRADIATION (SERBIA 2021)

INSTRUMENTATION

The sound world in the fantasy film Irradiation was created through the use of sound synth modules (Kyma program) to generate a wide range of audio effects that bring the CGI visual domain of the film to life.

Irradiation

Ziwei Wang



TALE OF THE DEAF

FANTASY FILM (RUSSIA 2021)

Tale of the Deaf is a Russian gothic horror film directed by Philipp Yuryev. The story takes place in a run-down tavern. An organ grinder, who wears a gorgeous suit and earplugs, appears and plays his hurdy-gurdy in a concert for the poor people in the tavern. While hearing the music, the people become hypnotized and unable to control their physical movements, while their minds are transported to a magical place inside a medieval dome. As the music reaches its climax, the souls of the people are sucked into the hurdy-gurdy.

When the organ grinder finishes the process of absorbing souls, he suddenly discovers a deaf man in the room. The organ grinder tries to hypnotize him by playing the hurdy-gurdy, but the deaf man cannot hear the music, and the organ grinder turns the handle so hard that he breaks it. He is shocked to discover that his music-making does not affect the dead man. Then the deaf man snatches the organ grinder's earbuds, and he is immediately hypnotized since the music has continued to play automatically. The organ grinder is sucked into the magical world and attacked by the people from the tavern who are trapped there. The film cuts to the final scene when the deaf man is playing the hurdy-gurdy for an audience of laughing children while the dead people are dancing to the music like puppets on strings.

The film is a black-and-white silent film with almost no dialogue; it relies solely on the music to tell the story. Therefore, the choice of musical instruments and style are particularly important in this film composition. When I wrote the music for *Tale of the Deaf*, I found an interview with the director, who mentioned that he wanted to tell a Gothic horror story in a way that distorts the reality of the time period in which it takes place. Indeed, this film has some features that are taken from several different time periods, including pre-modern taverns, medieval architectural domes, lizards from ancient Greek mythology, and other haunting images from the medieval era. To reflect this, I have composed music featuring a combination of different styles from Baroque music to Gothic rock music, and to synthesized electronic music.

In order to express a fairy-tale feeling with music, I chose celesta as the sound of the hurdy-gurdy in the film, which was inspired by Hedwig's theme in the soundtrack made by John Williams for the series of Harry Potter films. In addition to celesta, I used medieval instruments, such as the recorder, to highlight the feeling of a medieval fairy tale. At 6:20, the scene changes to the tavern, where a poor man picks up the leftover bones on his plate and suddenly notices that the bones have the appearance of meat again. Then, I added the recorder to the celesta music and this combination creates a kind of medieval idyllic fairy-tale world, which sets the tone for the rest of the film.

When the people pass through the gorgeous room with the medieval dome, I chose to create music for the harpsichord, because in the Baroque period, harpsichord music was usually heard by people from upper society, who had the access to receive a musical education. The poor people in the film are not familiar with the Baroque music style.[2] However, because they enter into the unreal illusion, they imagine themselves as being members of the upper class, so I have written harpsichord and Baroque music to suggest the imaginary characteristics of their identities. The music continues to transform as the scene shifts from the lower class people in the tavern to the upper class people in the imaginary place, which is perfectly aligned with the movement of the camera between the two locations.

The second half of the film is shrouded in horror. To honor the director's desire to make a gothic horror film, I chose gothic rock music to create this scary atmosphere. I got a lot of inspiration for this type of music from the song “Bela Lugosi’s Dead” as played by the gothic rock band Bauhaus. In this song, the band features a dramatic performance by electric guitar, extra heavy reverb vocals, disturbing dark instrumentation, and many distorted synthesizer sounds.

[2] Richard Leppert, “Music, Representation, and Social Order in Early-Modern Europe,” *Cultural Critique*, no. 12 (1989): 25, https://doi.org/10.2307/1354321.

Throughout this film, I also featured these characteristics as described above. For example, in using the electric guitar, I added many effects on electric guitar and electric bass to create unique effects for special scenes, such as in the film at 9:20, when the deaf man climbed out from under the table and saw everyone dancing in strange postures, while they also seemed to enjoy it. I used EQ (the equalizer module) to greatly increase the mid and low range to around 217 Hz to give the electric guitar a very thick sound quality. Moreover, I added a lot of compressor and reverb to distort the sound to evoke a feeling of unreality. In addition, to make the audience feel enveloped by the strange electric guitar sound, I added a chorus effect that layers the same sound with a slight delay and a slight difference in frequency. In scoring this movie, I used one electric guitar and two electric basses, and I used a panner to assign them to different sound channel positions so that the audience could hear different music from different sound positions. Thus, the sound that was heard from the left and from the right was different, which gives the audience a sense of being immersed in a sound environment.

In the part of electronic music in this film, besides the use of electric guitar, I also made some electronic sound designs by using noise, sound waveform, etc. For example, to express the painful moaning sound of the soul being sucked out, I used the “AR" module in Kyma. It can "generate an envelope with the specified attack and release times with either linear or exponential segments,” [3]and made dynamic changes to a sample of electric guitar sounds by transforming its envelope in the “AR” module in order to describe spirits moving through the air, and I used reverb to expand the sense of space. This sound comes up every time that the souls of the tavern people appear, embodying the unique sound characteristics of the soul.

In the film, when an intense bright light emanates from the hurdy-gurdy at 12:12 and 13:25, I created a sound that resembles the experience of tinnitus, which is when a person hears an irritating high-frequency ringing sound in their ears. I modulated the frequency of a sine wave to 110 note number, which is D8 by the oscillator synthesis module. Then, since the sine waveform produced by the oscillator is too harsh and too pure, I added a low pass filter to cut off some high frequency and increased the reverb to make the sound closer to the painful experience of tinnitus.

In film music composition, the issue of when to compose music and when to let there be silence is an important one. In composing music for *Tale of the Deaf* and the other three films, I considered the following questions in determining the best places to compose music in the film:

- When is the music truly needed in a given scene?
- When will the music make the film more compelling if there is silence?
- When should only the dialogue or sound effects be heard?
- When should the music be complex, but not too complicated in a way that disturbs the audience’s attention to the visual content of the film?
- When should the music be simple, but still have enough tension so that it does not interfere with the development of the plot?

In *Tale of the Deaf*, there are many scenes in which the sense of space is transformed, for example, when a shot transforms from the space of the tavern to the space of the imaginary place with the medieval dome. In the case of this example, I created different musical themes for each space—for the tavern, I composed the music of the hurdy-gurdy that was played by the organ grinder and for the space of the imaginary place with the medieval dome, I created nineteenth-century waltz music. At another point in the film, I composed gothic rock music when the organ grinder started sucking people’s souls into a compartment within the hurdy-gurdy itself. To create smooth transitions, I made use of several synth-modules to help me compose music that gave the listener a

[3] “AR” Description, *Kyma Reference Menu*

sense of transformation from one space to another. For example, I used a filter to blur background music, and then combined filtered and unfiltered music to evoke the differences between reality and unreality.

In addition, silence is an important aspect in this film. In the first five minutes, the director reveals all the characters and settings, and gives the viewer a huge amount of information. This is a narrative shot without moving the camera very much, yet somehow, the music is tells the story in a disturbing manner. To foreshadow what is to occur, I used only one or two low tones with string tremolo to suggest the uneasiness of each character as they first appeared on camera. At 2:57, the organ grinder suddenly opens the door to the tavern, and the rowdy crowd suddenly falls silent. At this time, the music becomes completely quiet, because we can imagine that if a person suddenly enters our room, then we hold our breath to see what will happen next. However, if there is music at this point in the film, it will inevitably distract the audience. Film music is a subconscious guide to the audience's understanding of the plot, but here it is clear that the director has used the visual content to bring the audience to a point where musical narrative is unnecessary. As the organ grinder slowly walks to the tavern stage, the music starts to follow his footsteps. Then he performs a magic show for the poor people, and it's not until 5:20 that the music follows the camera again and now assumes the main narrative role.

TALE OF THE DEAF (RUSSIA 2021)

INSTRUMENTATION

Flute
Alto Recorder
Bass Recorder
Oboe
Bb Clarinet
Basson
F Horn
Trombone
Timpani
Bass Drum
Maracas
Electric Guitar
Electric Bass
Harpsichord
Organ
Celesta
Synthesizer
Synth Bass
Strings (Violin I, Violin II, Viola, Cello)

The Tale of Deaf

Score in C

Fairy Tale

♩ = 120

Ziwei Wang

1'29"

Flutes

Alto Recorder

Bass Recorder

Oboes

B♭ Clarinets

Bassoons

F Horns

Trombone

Timpani

Bass Drum

Maracas

Electric Guitar

Electric Bass

Electric Bass

Harpsichord

Organ

Celesta

Celesta

Synthesizer

Synth Bass

♩ = 120

Violin I

Violin II

Viola

Violoncello

2

Vla.

Vc.

ppp *p* *ppp* *ppp* *p* *ppp*

8

Vla.

Vc.

ppp *p* *ppp*

15

Vla.

Vc.

ppp *p* *ppp* *ppp* *p* *ppp*

ppp *p* *ppp*

22

Vla.

Vc.

ppp *p* *ppp* *ppp* *p* *ppp*

28 2'16" 3'25"

Vla.

Vc.

29

Vla.

Vc.

ppp

pp

38

Vla.

Vc.

48 4'02"

5"21"

Vla.

Vc.

49

Bsn.

pp

E. Bass

mf

Synth.

pp

Vla.

Vc.

pp

58 5'45"

6'01"

Vla.

Vc.

59

Cel.

mp

64

Cel.

mp

70

A. Rec.

pp *mp*

Cel.

pp *mp*

74

A. Rec.

mp *pp*

Cel.

78

Cel.

mp *pp*

82

Cel.

Synth.

Vla.

Vc.

mf

ppp< *mf* >*ppp*

87

Cel.

Vla.

Vc.

rit.

mf *pp*

ppp< *mf* >*ppp*

91

A. Rec.

B. Rec.

Cel.

Vla.

Vc.

p

f

p

94

Cel.

mf

101

A. Rec.

B. Rec.

mf

mf

Cel.

pp

mp

Vc.

mf

105

A. Rec.

B. Rec.

pp

pp

E. Bass

Cel.

mf

Cel.

pp

pp

Vc.

109

A. Rec.

B. Rec.

E. Bass

Cel.

pp

Cel.

mp

Vc.

112

A. Rec.

B. Rec.

E. Bass

Cel.

Cel.

mp

mf

Vc.

116

A. Rec.

B. Rec.

E. Bass

Cel.

Cel.

f

Brillant

122 ♩ = 130

B. Rec.

Hpsd.

mf

Cel.

f

pp

126

B. Rec.

Hpsd.

Cel.

130

Fl.

B. Rec.

Cl.

Hpsd.

Vln. I

Vln. II

Vla.

Vc.

134

Fl.

B. Rec.

Cl.

Hpsd.

Cel.

Vln. I

Vln. II

Vla.

Vc.

138

Fl.

B. Rec.

pp

Cl.

Hpsd.

pp

mf

Cel.

f

f

pp

Vln. I

pp

mf

Vln. II

pp

mf

Vla.

pp

mf

Vc.

pp

mf

142

Fl.

B. Rec.

Cl.

Hpsd.

f *mf* *mp*

Cel.

Vln. I

f *mf* *mp*

Vln. II

f *mf* *mp*

Vla.

f *mf* *mp*

Vc.

f *mf* *mp*

145 **Waltz**

Fl.
Ob.
Cl.
Bsn.
Hn.
Timp.
B. D.
Mrcs.
Hpsd.
Cel.
Vln. I
Vln. II
Vla.
Vc.

150

Fl.

Ob.

ppp

ppp

Cl.

ppp

Bsn.

ppp

Hn.

Timp.

ppp

B. D.

Mrcs.

Hpsd.

Cel.

mf

f

Vln. I

pp

ppp

Vln. II

pp

ppp

Vla.

pp

ppp

Vc.

ppp

157

A. Rec.

p *ppp*

Timp.

p *pp*

B. D.

p *pp*

Cel.

mf *mp*

S. Bass

pp

Vc.

pp *ppp*

163

A. Rec.

Timp.

B. D.

Cel.

mp *ppp*

S. Bass

Vc.

168

S. Bass

pp f pp f gliss.

178

S. Bass

pp f

188

S. Bass

pp f

Vln. I

ppp f ppp

Vln. II

ppp f ppp

Vla.

ppp f ppp

Vc.

ppp f ppp

193

S. Bass

pp

Vln. I

ppp f ppp

Vln. II

ppp f ppp

Vla.

ppp f ppp

Vc.

ppp f ppp

200

Fl.

Ob.

Cl.

Bsn.

p

Hn.

Tbn.

p

Timp.

B. D.

Mrcs.

Hpsd.

S. Bass

f

Vln. I

3 3 3

p

3 3 3

Vln. II

p

Vla.

p

3 3 3

Vc.

p

205

Fl.
Ob.
Cl.
Bsn.
Hn.
Tbn.
Timp.
B. D.
Mrcs.
Hpsd.
S. Bass
Vln. I
Vln. II
Vla.
Vc.

209

Fl.
Ob.
Cl.
Bsn.
Hn.
Tbn.
Timp.
B. D.
Mrcs.
E. Gtr.
E. Bass
Hpsd.
S. Bass
Vln. I
Vln. II
Vla.
Vc.

214

Fl.

Ob.

Cl.

Bsn.

Hn.

Tbn.

Timp.

B. D.

E. Gtr.

E. Bass

S. Bass

Vln. I

Vln. II

Vla.

Vc.

221

Fl.

Ob.

Bsn.

Hn.

Tbn.

Timp.

B. D.

E. Gtr.

E. Bass

S. Bass

Vln. I

Vln. II

Vla.

Vc.

mf *f* *mp* *pp* *ff* *sub.* *gliss.*

225

Fl.

Ob.

Bsn.

Hn.

Tbn.

Timp.

B. D.

E. Gtr.

E. Bass

S. Bass

Vln. I

Vln. II

Vla.

Vc.

230

Fl.

E. Gtr.

Bend

ff

mp

E. Bass

ff

mp

Cel.

Synth.

S. Bass

pp

f

Vln. I

make a random note with tremolo and glissando around given note

pp

pp

Vln. II

make a random note with tremolo and glissando around given note

pp

pp

Vla.

make a random note with tremolo and glissando around given note

pp

pp

Vc.

make a random note with tremolo and glissando around given note

pp

pp

236

Fl.

E. Gtr.

mf ff mf

E. Bass

mf ff mf

Cel.

pp f

Synth.

gliss.

mf mp mf

S. Bass

Vln. I

f pp

Vln. II

f pp

Vla.

f pp

Vc.

f pp

242

E. Gtr.

ff

mf

E. Bass

ff

Cel.

mf

Synth.

gliss.

mp

S. Bass

pp

f

Vln. I

pp

Vln. II

pp

Vla.

pp

Vc.

pp

248

E. Gtr.

mf ff mf

E. Bass

Cel.

mf ff mf

Synth.

p f p

gliss.

mf p

S. Bass

pp pp f

Vln. I

f pp

Vln. II

f pp

Vla.

f pp

Vc.

f pp

254

E. Gtr.

E. Bass

Cel.

Synth.

S. Bass

Vln. I

Vln. II

Vla.

Vc.

260

E. Gtr.

E. Bass

Cel.

S. Bass

265

E. Gtr.

Cel.

S. Bass

mf

pp

f

pp

273

E. Gtr.

S. Bass

ff

ppp

f

pp

282

E. Gtr.

Cel.

S. Bass

mp

f

mp

f

pp

288

E. Bass

Cel.

S. Bass

pp

f

pp

294

E. Bass

S. Bass

mf

ff

302 12'13"

12'40"

E. Bass

S. Bass

303

E. Gtr.

E. Bass

E. Bass

S. Bass

Vln. I

Vln. II

Vla.

Vc.

mf

pp

p

f

make a random note with tremolo and glissando
around given note

310

E. Gtr.
gliss.
f
p

E. Bass
f
p

E. Bass
f
p

Synth.
p
f
p
mf
gliss.
mf

S. Bass
gliss.
f
pp

Vln. I
f
pp

Vln. II
f
pp

Vla.
f
pp

Vc.
f
pp

317

Vib.

E. Gtr.
p
ff

E. Bass
mf
mf

E. Bass
mf
mf

Synth.
gliss.
p
Slightly change frequency
pp

S. Bass
f

322

E. Gtr.

E. Bass

E. Bass

Synth.

S. Bass

mf

ff

ff

pp

sub.
f

329

E. Gtr.

E. Bass

E. Bass

Synth.

S. Bass

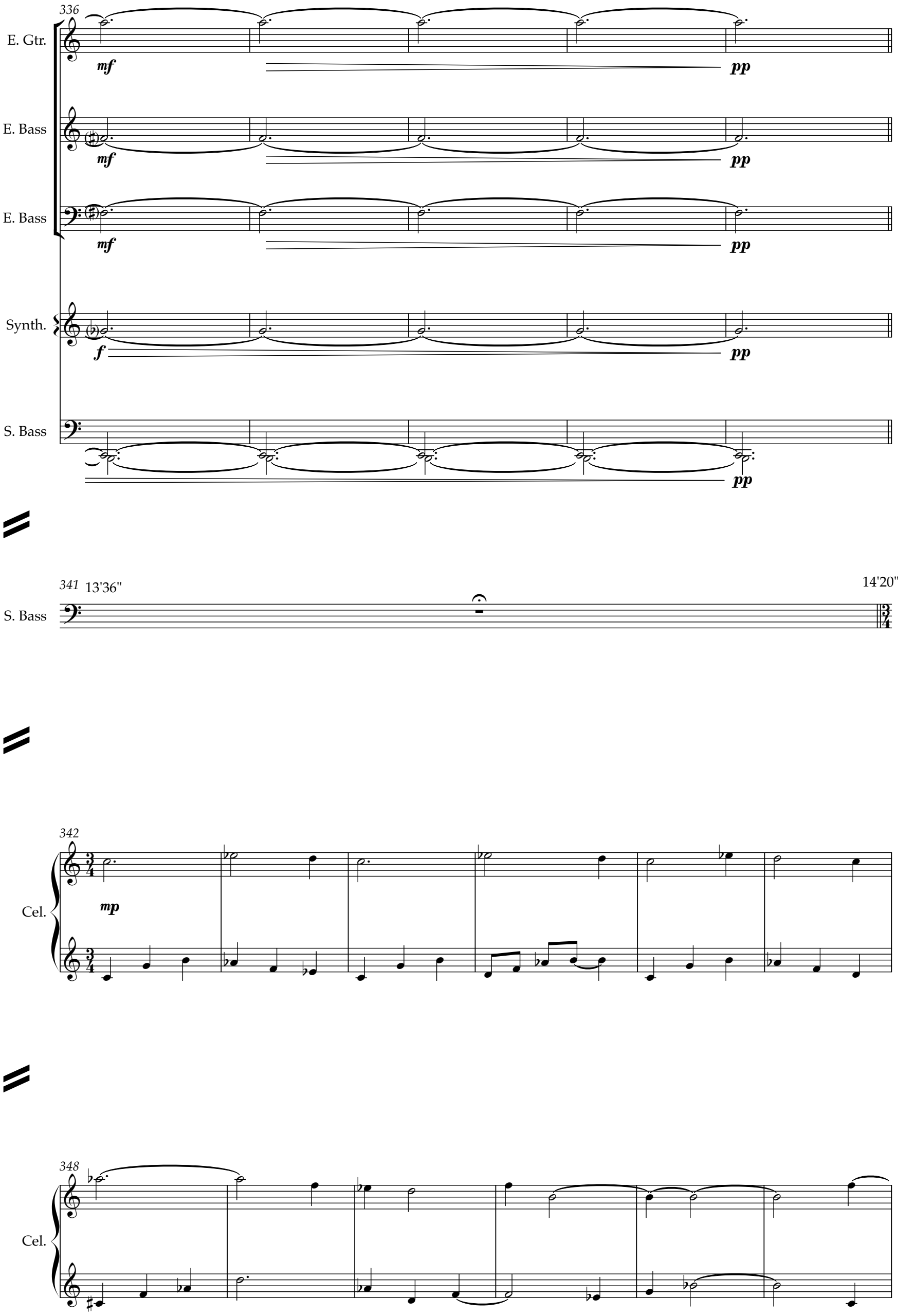
pp

pp

pp

pp

sub.
f


336
E. Gtr.
mf
pp
E. Bass
mf
pp
E. Bass
mf
pp
Synth.
f
pp
S. Bass
pp
341
13'36"
14'20"
S. Bass
342
Cel.
mp
348
Cel.

354

Cel.

mf

360

Cel.

ff

Synth.

ppp

S. Bass

ppp

364

Cel.

Synth.

S. Bass

368

Cel.

mf

Cel.

mp

Synth.

ff

S. Bass

ff

371

E. Bass

Cel.

Synth.

S. Bass

377

E. Gtr.

E. Bass

E. Bass

Cel.

Synth.

S. Bass

mf

p *ff*

p *ff*

p

pp

mp

383

E. Gtr.

E. Bass

E. Bass

Cel.

S. Bass

ff

gliss.

ppp

389

E. Gtr.
p
mf

E. Bass
p
mf

E. Bass
p
mf

S. Bass

Vib.

393

E. Gtr.
mp
f

E. Bass
mf
f

E. Bass
mf
f

Slightly change frequency

Synth.
mp
mf

S. Bass

401

E. Bass

Synth.
mp
mf

S. Bass

407

E. Gtr.

E. Bass

E. Bass

Synth.

S. Bass

ff

* bend

mf f ff f

* bend

mf f ff f

mp mf

* Play a turn (∾) on the beat and immediately thereafter play the pitch bend.

413

E. Gtr.

E. Bass

E. Bass

Synth.

S. Bass

p

gliss.

f p

gliss.

f p

mp mf

419

E. Gtr.

E. Bass

mf *mf* *p*

E. Bass

mf *mf* *p*

Synth.

mp *mf*

S. Bass

429

E. Bass

mf *p*

E. Bass

mf *p*

Cel.

mf

Synth.

mp *mf*

S. Bass

435

E. Bass

mf

E. Bass

mf

Cel.

ff

Synth.

mp

mf

S. Bass

441

E. Bass

mf

pp

E. Bass

mf

pp

Cel.

mf

pp

Synth.

pp

S. Bass

pp

16‘46“ **Playful**

446 ♪ = 180

Fl.

A. Rec.

B. Rec.

Ob.

Cl.

Bsn.

Org.

Cel.

♪ = 180

Vln. I

Vln. II

Vla.

Vc.

451

Fl.

A. Rec.

B. Rec.

Ob.

Cl.

Bsn.

Org.

Cel.

Vln. I

Vln. II

Vla.

Vc.

457

Fl.

A. Rec.

B. Rec.

Cl.

Bsn.

Hn.

Org.

Cel.

Vln. I

Vln. II

Vla.

Vc.

463

Fl.

A. Rec.

B. Rec.

Cl.

Bsn.

Hn.

Org.

Cel.

Vln. I

Vln. II

Vla.

Vc.

mf *f* *mf* *f*

468

Fl.
A. Rec.
B. Rec.
Cl.
Bsn.
Hn.
Org.
Cel.
Vln. I
Vln. II
Vla.
Vc.

473

Fl.

A. Rec.

B. Rec.

Cl.

Bsn.

Hn.

Org.

Cel.

Vln. I

Vln. II

Vla.

Vc.

478

Org.

Cel.

Vln. I

Vln. II

Vla.

Vc.

484

Org.

Cel.

Vln. I

Vln. II

Vla.

Vc.

488

Fl.
A. Rec.
B. Rec.
Cl.
Bsn.
Hn.
E. Gtr.
E. Bass
Org.
Cel.
Cel.
Synth.
S. Bass
Vln. I
Vln. II
Vla.
Vc.

ff *pppp* *mf* *f* *ppp* *pp* *mp*

493

Fl.

A. Rec.

B. Rec.

Hn.

E. Gtr.

E. Bass

Org.

Cel.

Cel.

Synth.

S. Bass

Vln. I

Vln. II

Vla.

Vc.

pp

f

ff

499

Fl.

A. Rec.

B. Rec.

E. Gtr.

f *p*

E. Bass

f *p*

Org.

pp

Cel.

mf *p*

Synth.

f *p*

S. Bass

f *p*

Vln. I

mp *mf* *mf* *p*

Vln. II

mp *mf* *mf* *p*

Vla.

mp *mf* *mf* *p*

Vc.

mp *mf* *mf* *p*

506

Fl.
A. Rec.
B. Rec.
Ob.
Cl.
Bsn.
E. Gtr.
E. Bass
Org.
Cel.
Synth.
S. Bass
Vln. I
Vln. II
Vla.
Vc.

511

Fl.
A. Rec.
B. Rec.
Ob.
Cl.
Bsn.
E. Gtr.
E. Bass
Org.
Cel.
Cel.
Synth.
S. Bass
Vln. I
Vln. II
Vla.
Vc.

516

Fl.

A. Rec.

B. Rec.

Ob.

Cl.

Bsn.

E. Gtr.

Org.

Cel.

Cel.

Synth.

S. Bass

Vln. I

Vln. II

Vla.

Vc.

522

Fl.
A. Rec.
B. Rec.
Cl.
Hn.
E. Gtr.
Cel.
S. Bass
Vln. I
Vln. II
Vla.
Vc.

18'37" **Magical**

529 ♩ = 130

Cel.

535

Cel.

540

Cel.

mf *mp* *mf*

545

Cel.

mf

550

Cel.

ff *mf* *ff*

553

E. Gtr.

mp

Cel.

mf *ff* *mf*

556

E. Gtr.

mf

Cel.

ff *ppp*

Cel.

mp *mf*

560

E. Gtr.

Cel.

Cel.

mp

f

563

E. Gtr.

Cel.

f

mf

mp

569

E. Gtr.

Cel.

mp