

Thrice - Sound Design Notes.

MICHAEL C. CULLEN

CREATIVE EAR (SOUND DESIGN)

NICHOLSON HOUSE,

NICHOLSON SQUARE

EDINBURGH

2005

“This copy of the sound design notes has been supplied on condition that anyone who consults it is understood to recognise that the copyright rests with the author and that no quotation from these notes or information derived from them may be published without prior consent of the author.”

Contents

Title Theme	3
Scene 1 – Eves Bar	4
Scene 2 - Milko	5
Scene 3 – Eves Bar (Eve & Archie)	6
Scene 4 - Hubble’s Lab	6
Scene 5 – Intercom	7
Scene 6 – The Chase	7
Scene 7 – Zippo & The End	8
End Title Theme	8
Marker List – Pro Tools Session	9
Equipment List	10

Title Theme

The title theme was composed from substantial editing and re-mastering of an unpublished work from my music library.

The track was imported into Apple Logic Pro 7 together with the Thrice movie. Initially, I tried different alignments of the audio and video until I discovered a section of synchronicity. This establishing synchronicity is at 00.38 in the title sequence.

Sections of the audio were then cut and rearranged to fit the dynamic flow of the visuals. The challenge was to present the title work as a cohesive composition rather than a series of 'bolted' back-to-back edits and I feel that this has been fulfilled.

In addition, editing was performed with consideration for placement of Spot Effects. Most of the spot effects were introduced in the Logic Pro session. A few others were added in the Pro Tools session as the sound design progressed.

The opening sounds are of metal scrapes and a floorboard creak sourced from my sound library. This library was established as a continuous part of my MSc programme and is included on the Sound Design Project DVD.

The title theme was mastered by adapting the main output channel plug-in setup of the Mastering Template .lso file. The mastered audio was then imported into Pro Tools where all further sound design and editing was accomplished.

The Logic Project session is available for analysis on the Sound Design Project DVD.

Scene 1 - Eve's Bar

The Music commences on approach to the bar and is processed through a low pass filter to achieve the effect of hearing the music from outside a building. This is enhanced with the sound of an extractor fan and a helicopter sound that was recorded during the 'Make Poverty History' riots in Edinburgh.

Upon entering the bar, the music returns to a fuller bandwidth indicating that this is the space where the music is playing. The helicopter sound pans gently from left to right and morphs into the sound of applause in the bar. The ongoing character dialogue then dictates the level of the music throughout the scene.

Spot effects in this scene include: A sliding door effect, heavy footsteps; the sound of the gun firmly placed down on the bar; abrasive glass turns (to reflect tension in the character); gun scrapes on bar and blowing cigarette smoke.

Off screen diageitic sounds include: Applause; conversation; drunken chanting and abusive comments from a female.

The application of computer-generated sounds blurs the boundaries between possible non-diageitic and spatial signature sounds. Occasionally they serve to compliment the tension between characters.

I particularly enjoy the interplay of the snare drums from the music-bed in conjunction with the spot-effects for the glass and in between dialogue.

Scene 2 - Milko

The sound design for this scene was complex but very rewarding. It brought together sonic structures from several different environments.

The selective audio employed in the dissolve from scene 1 to scene 2 is a mixture of reverse voice editing and synthesized sound culminating in a firework explosion recorded during the Edinburgh festival as an establishing sound.

There are off-screen diegetic effects of dogs barking and a man shouting. The soundscape is further constructed from recordings of Formula 1 racing cars recorded live in Monaco, klaxons from yachts in a harbour, people cheering at a fire festival and reverberant mumbings of public announcements.

A sound was synthesized for the 'pistol-whip' spot effect and the scene fades with the sound effect of a trashcan being disturbed.

The police car engine sound is based on the tonal characteristics of a siren as if to suggest that the engine and siren are one entity. It is described in more detail in the context of synchronicity within a multidimensional space in section 2.2, of the thesis accompanying this project.

The engine 'roar' is a close-up recording of a Formula 3 racing car pitch-shifted and time stretched by 50%.

The spot effect for Milko's body impacting on the pavement was constructed from a mixture of synthesis, handclaps and water sounds.

The spot effect for Archie cocking his pistol is also synthesized, as there were no firearms available.

Scene 3 – Eves Bar (Eve & Archie)

This scene is intimate in nature and the sound design was minimized to reflect this. Much attention is paid to the spatial characteristics of the perceived location with the application of a gentle reverb for the dialogue. The soundscape is designed to create the impression of cleaning in progress. For this effect I recorded an electrical fan, generator and the opening and closing of drawers on a metal filing cabinet.

Scene 4 - Hubble's Lab

The Sound design for Hubble's laboratory was also composed from extracting relevant sections from two other unpublished works. The 'bleeping' sound design composition with voice was originally composed as a work conceptually based on machines assembling a human. All the dialogue is courtesy of Marianne Turner, a hypnotherapy practitioner. I produced three relaxation CD's for Marianne to give to her clients. With her permission, I extracted from the recordings any word that related to a body part and number.

Her voice was then subjected to further audio sculpturing and subtle transformations to create a desirable machine voice, (see section 6.2 of the accompanying thesis). All bleep effects were designed in Emagic Logic Audio 6.0. I designed a patch on the ES2 synthesizer and programmed hundreds of individual notes in the Matrix Editor. The ES2 patch was setup to have the filter, LFO and amplitude sections respond dynamically to different velocity values and note lengths, thus producing a rich palette of sound effects from one 3-oscillator unit.

The melodic music in Hubble's Lab is also an unpublished work that is processed through a high-pass filter to portray a speaker with narrow bandwidth.

There is much subtle interplay between the amplitudes of the 2 music beds.

Spot effects include the hover-chair that incorporates the sound of gas escaping from a fizzy drink bottle, the vertical sliding door and the synthesized machine-gun sound, described in more depth in section 1.3 of the accompanying thesis.

The morphology imposed on the music for the scene dissolve was a pleasure to realise and produce. The transition is one of cheap speaker to big sound system emanating from the bar, to loud and clear with reflections characteristic of a large empty club or bar.

Scene 5 – Intercom

The intercom effect is the simple application of band pass filtering of prominent mid range vocal frequencies and strong compression mixed with white noise.

Scene 6 – The Chase

The music is again sourced from my library. I processed the left channel as a mono file in SoundHack using the time varying options of the phase-vocoder. This generated a transformation that started very slowly and gradually accelerated over time due to the line function rising from 100% negative to 100% positive. I selected a section that was initially close to the original tempo and increased subtly to enhance the tension of the chase as it progressed.

The scene dissolve between scene 5 and 6 is derived from the concept of the police car engine sound having temporal characteristics of a siren. The engine rises in pitch and perceived mass to a point where it descends as a distant siren-like sound and continues as a more perceptible siren sound.

The sound effects used for the attack on the droid are all synthesized. The vocal processing is described in more detail in section 6.2 and 7.2 of the accompanying thesis with regard to the multidimensionality of parallel perspectives and processing of early reflections.

The Gunshots are all synthesized. Intuitive application of early reflections created a convincing firing mechanism to an originally less convincing gunshot effect.

The spot effect used for Archie walking on gravel is the same one employed earlier in the movie for ‘munching’ sounds. The sound fulfils perceptible requirements of both scenarios.

Scene 7 – The Zippo and The End

The recording for the Zippo cigarette lighter is very satisfying. A very clean recording of the hinge mechanism combined with the escape of gas that is clearly audible.

Connoisseurs of cigarette lighters should be a little perplexed by this recording, as in fact the hinge is authentic Zippo, but the gas is from the cheap ‘clipper’ variety.

End Title Theme

The Music for the end titles was created from time-stretched loops processed thru short delay algorithms.

Marker List – Pro Tools Session

#	Name	
32	CityScrape	◆
30	Munching	◆
35	Bar Music 1	◆
1	Scene 01 Bar	◆
12	Pc footsteps	◆
13	GunDown	◆
18	Beat Stops Musi...	◆
14	GunMove Slight	◆
11	GunScrape	◆
26	Milko Scene	◆
40	Firework	◆
3	Pistol Whip	◆
9	CopCar Descent	◆
22	Doughnuts	◆
23	Catch!	◆
10	Pistol Cock	◆
34	Scene 3 Eves	◆
2	Hubbles Lab	◆
16	DoorBell	◆
38	Chair Glide	◆
5	Shoot Out	◆
15	machine gun puff	◆
37	Hubble's Chair ...	◆
29	Kong Munching	◆
31	Hubble to Eve's	◆
27	Intercomm	◆
28	Prescott Be Rig...	◆
36	Chase Theme	◆
17	pole pick up	◆
4	Rusty Metal Cunt	◆
24	Archie Leaps	◆
21	kick in face	◆
25	Archie Swipes R...	◆
8	Ui6_RunTheme...	◆
20	Archies Footsteps	◆
19	ZapGun	◆
33	Zippo	◆
6	Harvester	◆
39	Archie Walks A...	◆
7	EndCredit Music	◆

The screen shot of the marker list from the Pro Tools session is included as it indicates the nonlinear approach to the design of the project as it develops. Marker 1 logically represents Scene 1, but Marker 2 jumps forward to Hubble's Lab. This was a comparatively complex scene similar in complexity to the title sequence. Its early completion served as a psychological boost for tackling other less intensive sound design, such as spot effects.

Equipment List.

STUDIO 1

Apple G5 Dual 2.5GHz

Digidesign MBox

Pro Tools 6.4

2x Genelec 1032

STUDIO 2

Apple G5 Dual 2.0GHz

Digidesign Digi002

Pro Tools 6.7

Apple Logic Pro 7

Waves 5.0 Diamond Bundle

2x Genelec 1030

1x Genelec 7070A

Fostex FR2

Neumann KM184

DPA WindPac

Sennheiser HD25