

# Chapter Seven

## THE SONIC APPROPRIATION OF DYSTOPIA

### Industrial and the Communication of Meaning Part Two

#### 7.0 Introduction: How does industrial communicate these meanings?

In Chapter Six the connotations of industrial were examined through listener response tests. Responses revealed a significant recurrence of dystopian imagery, even amongst non-fans, and even in cases where lyrics were not present or not understood. In all five songs examined, there were recurrent connotations of 'dark', 'death', 'urban', 'violent', 'anguish', 'industrial/factory' and 'future'. Several dystopian films having these characteristics were explicitly mentioned (*Terminator 2*, *The Matrix*, *Metropolis*, etc.).<sup>303</sup> Before exploring the possible reasons for these connotations, it will be

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303 It is worthwhile here to remind the reader of the distinctions I made between the three types of dystopia: 'industrial' dystopia, those dark, gritty dystopias set in near-present day which involve blue filter, mechanical motifs and a reference to human-as-machine (e.g. *Metropolis*, *Robocop*, *The Matrix*). Other types of dystopia include the 'barbarian', where humans must adapt to an absence of higher technology in often equally dark and gritty worlds (e.g. *Mad Max* or *Planet of the Apes*), and the 'clinical' dystopia, where high technology has led to a very clean police-state (e.g. *Fahrenheit 451*, *Brave New World*, *THX1138*, etc.). What concerns us here largely falls under industrial-dystopia, although there are overlapping elements in all of these films.

necessary to account for those connotations that were particularly prominent in one song, but not as prominent or not present at all in the connotations of the other songs.

## 7.1 Particular or Prominent Connotations in Each Song

While the similarities between songs in industrial can clearly reveal distinguishing elements of genre, the degrees of difference can also be illuminating. As Table 6.2 (p. 228) illustrated, each of the industrial songs elicited connotations that were unique to, or particularly prominent, in that piece. These degrees of difference, however, were still within a relatively limited field of connotations, illustrating where boundaries of genre distinction may lie. There were, for instance, little or no references to love, happiness, romance, or nature.

The distinguishing elements were; the connotations of detection and illicit activity in ‘Haus der Lüge’, of madness and mazes in ‘Harsh Stone White’, of cleanliness and desolation in ‘Hardware Requiem’, of dirtiness, chases and fights in ‘Itami (Two)’, and of space and expansiveness in ‘Dead by Dawn’, which will now be briefly explored.

Einstürzende Neubauten’s ‘Haus der Lüge’ was the only song with particularly prominent references to crime, including ‘007’, ‘detection’, ‘fake politicians’, ‘empty room with a lamp shining down on a man’, ‘secret meetings’, ‘embezzle’, and ‘intrigue’. It is possible that some of these connotations relate to the repeated synth pad melodic motif, starting bar 38. The synth pad melody repeats a chromatic gapped harmonic minor scale which also includes a phrygian flat second—A, B $\flat$ , C $\sharp$ , D, G,

E $\flat$ —A. This melody line is made even more tense by a slight pitch bend to the C $\sharp$ ,

as well as a sung C♯ under the C♯. This melody line resembles the start of the middle eight of the *James Bond* theme of *Dr. No*, although in a different key. Both share a low tonic and a rising scale with a quick leap to a major seventh in a prominent position.



Example 7.1. 'James Bond' (Norman and Barry, 1962)



Example 7.2 'Haus der Lüge' (1984)

Skinny Puppy's 'Harsh Stone White' contained many references to going mad and being trapped: 'anxiety and denial attacking', 'trying to come to grips', 'maze of corridors', 'labyrinth', 'frenzies', 'trenches', 'hindering...progress', 'crazed', 'contorted', 'torture', 'distorted faces', 'migraine', 'self-abuse', 'bad acid trip', 'going crazy' and 'trying to break free' all seem to be associated concepts. These connotations are possibly linked to both the vocals and the 'drill' sound.

An echo-plex or some other form of digital delay, used particularly on the 'vomiting' phrase (bars 36-40), combines reverb and delay to create the feeling of a voice bouncing around inside something (e.g. a head). A similar effect is seen in the film *Patton* (1970), at the stage where General Patton is going crazy. This effect seems related to the 'going crazy' and 'bad acid trip' connotations.

There are also background screams and moans throughout the song, some of which are most likely sampled from horror films. These background voices are also treated with effects, including vocoding and saturation. Voices in the background are not

uncommon in industrial recordings. Most frequently such voices are found in association with artists whose work is influenced by horror films, such as Velvet Acid Christ and Carbon 12. The combination of these voices with echo, feedback, reverb and overdrive as heard in 'Harsh Stone White' is also found for instance in Ministry's 'Scarecrow' (1991), Velvet Acid Christ's 'Psycho' and 'Caught' (1999), and Carbon 12's 'Pressure' and 'Rejected Messiah' (1999). When background voices have been used in both industrial and non-industrial songs, they would seem to indicate some kind of madness. For instance, there are voices in Bauhaus' 'Paranoia, Paranoia' (1990), Nine Inch Nails' 'The Becoming' (1995, which speaks of 'they won't give up, they want me dead, god damn these voices in my head'), and Wumpscut's 'Capital Punishment' (1995) (echoing the cries of the accused to 'father'). In particular, such voices used in combination with echo and delay effects seem to recall jokes about the insane hearing voices, such as the familiar 'the voices made me do it'.

These vocal effects, particularly when they are accompanied by screams or wails, also seem connected to Hell, death and horror, such as in God Module's 'Resurrection' (2000), Numb's 'Blood' (*Electropolis V.I.*, 1998), Front Line Assembly's 'Evil Playground' (2002), Wumpscut's 'Dying Culture' (1995), Front 242's 'Skin' (1993), Nine Inch Nails' 'Ruiner' (1994), and Front Line Assembly's 'Victim' (1992). In fact, there are masses of voices heard in the representations of Hell found in the films *What Dreams May Come?* and *Hellraiser* (see below), and therefore seem indicative of torment. It is possible that the connotations of madness are also related to the connotations of trenches and mazes seen, as a mind 'trying to break free' and being 'imprisoned inside his head'.

A second reason for the maze/trench connotations could be the ‘drill’ sound. Most often falling on the fourth beat, the sound gives the impression, as one listener argued, of taking three steps forward and then being dragged backwards. The drill does not always fall on the same beat—earlier in the song it is closer to the third beat, and therefore this could add to the confusion and sense of being lost or trapped.

‘Hardware Requiem’ had the only significant references to clinical dystopias (‘new’, ‘mint condition’, ‘shiny’, ‘empty’, ‘clean’ ‘twinkle’, ‘computer room’). The ‘clean’ digital sound of the synths more closely resembles 1980s synth-pop, as the many IOCMs suggest, and therefore the piece perhaps carries with it some of that synthetic ‘80s’ sound quality. These clean and open connotations seem linked to the lack of distortion in the piece. Compared with the other songs, there is much less distortion, and much more gating used. Distortion is often called ‘dirty’ sounding—there are many saturation effect devices that describe themselves as dirty, such as the ‘True Grit Distortion Box’ or Peavey’s ‘Dirty Dog Distortion Pedal’, while a ‘clean sound’ is often used in acoustics to describe a sound with minimum amounts of distortion.

The amount of dirty, urban connotations in Converter’s ‘Itami (Two)’ seems also to be closely related to the extreme amounts of distortion in the piece (see above). The song also had many references to chasing and fighting (‘chase’, ‘racing cars’, ‘car chase’, ‘high speed car chase’, ‘chase/skateboarding’, ‘chase scene through urban setting’, ‘running’, ‘heartbeat getting faster’, ‘fighting’, ‘bare knuckle fighting ring’, ‘battle’, ‘fight club’). These connotations are possibly secondary to the urban, dirty connotations in which car chases, crime, and fighting often take place in films. More likely, however, the chase connotations may be created by the stereo location of

short recurrent blasts on C#. These blasts occur in quick bursts and, like other elements in the piece, are panned from left to right, as if being chased.

'Dead by Dawn' was the only song to have a particular prominence of expansiveness and space connotations: 'under stars', 'spaceship', 'towards heaven', 'ray of sun', 'ship', 'sea', 'oil tanker', 'space ship', 'orion', 'large light in sky', 'horizon'. Interestingly enough, Gottberg informed me that the song was created in one night while he was suffering from insomnia and watching the sun come up. I believe these connotations are created through the use of the celestial chorus, discussed below.

## **7.2 Methods: Interobjective Approaches to Musical Meaning**

Now that I have accounted for the various differences between songs, the next step in any further analysis seems logically to be an examination of dystopian sound and music to determine what the common denominators between the sonic aspects of industrial and dystopia might be, and then to look in greater detail at these common denominators. This process involves interobjective methods which establish similarities of sonic structure between different compositions or between structural items within such compositions.<sup>304</sup> Argues Tagg;

No serious discussion of musical signification can in other words take place if the structures posited as carrying connotations cannot be shown to exist elsewhere than in the one musical utterance under analysis (1999: 36).

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304 I am using 'composition' rather than 'musical piece', 'recording', 'song', 'track', etc. so as to allow for the inclusion of sound design, etc. in this discussion.

It is particularly helpful to compare music with film, since film has accompanying imagery which can provide visual and narrative clues as to the intended meaning of the music used. The influence of film and television<sup>305</sup> (i.e. 'moving images', which I will in the interests of brevity refer to collectively as *film*) on popular music has been largely underestimated and under-investigated.<sup>306</sup> Film is pervasive in Western culture, and for those composing and listening to popular music in the last few decades, it has undoubtedly influenced the creation and reception of music in general.<sup>307</sup> Film plays a vital role, then, not only in the influence on the music's creation, but also on the codal competence of the audience.<sup>308</sup> This is particularly important in the case of industrial,

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305 Video game music should be included here also, although this has not been studied, and I cannot at this stage speak knowledgeably of it.

306 See for example the small number of film-music related titles in Shepherd et al. (1997) in relation to the overwhelming amount of literature on rock and pop music.

307 See for instance the highly cinematic elements of, for example, Pink Floyd's *Wish You Were Here* (1975) or *The Wall* (1970), the frequent occurrence of film samples in House and hip-hop, or references to films and television in music (e.g. Metalheads' 'Terminator' 1992), The Timelords' 'Doctorin' the Tardis' (1988), etc.

308 'Time and time again the average listener/viewer has heard particular sorts of music in conjunction with particular sorts of visual message. Thanks to the repeated audiovisual learning process, the listener/ viewer has acquired sufficient codal competence to connect certain musical structures with certain paramusical fields of association' (Tagg 1982b: 9). It could even be suggested that perhaps an understanding and appreciation of industrial requires a knowledge of science fiction and horror films. For instance, while I grew up watching horror and science fiction, and have a certain resonance with industrial music, one of my friends who 'just didn't understand' the music did not have this background. This is an idea that could be examined further in future study.

as audiences have in general first experienced the sounds of industrial in cinematic contexts.<sup>309</sup> As Ribrant indicates,

A sound's "credibility" [in film] depends more on established conventions in film and TV than on direct experiences. Often the members of the audience have no experiences of their own to relate to, for instance war sounds, car crashes or chandeliers falling down (1999: 10).

To examine the sonic aesthetic of dystopia and to determine any common traits in the recurrence of sounds or musical motifs, three significant dystopian films were selected and examined: *The Matrix*, *Terminator 2: Judgment Day* and *Tetsuo: The Iron Man*.

These films were chosen because:

- ? they had all been mentioned by participants at some point;
- ? they represented a range of popularity to general film-goers (blockbuster or cult);
- ? they were all known for their exceptional sound design or score, two of them having won Academy awards (see below);
- ? they had all been sampled by industrial artists;<sup>310</sup>
- ? they represented various types of dystopian film (action, psychological thriller and surreal);
- ? they represented a geographical range of film-makers (United States and Japan);<sup>311</sup>

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309 Of course, industrial sounds can be heard in construction sites, etc. What I refer to here are 'science fiction' sounds (see below).

310 *The Matrix* has been sampled by Deathline International's 'Destroy' (*Dystopian Visions*, 2000) and K.I.F.O.T.H's 'Clandestine And Formidable' (*Awake the Machines V.3* 2000). *Terminator 2* has been sampled by Chaingun Operate's 'Monuments of Flesh' (1996), Alien Faktor's 'Cranium' (1995) and Isotonik's 'Hasta La Vista' (1996). Wumpscut adapt the theme song for 'Crate' (1996).



? they were created during a period in which industrial music has been produced (1987 to 1999).

Each film was analysed for the occurrence of the main industrial elements outlined in Chapter One. Sound effects as well as musical elements were examined, as they are now often intertwined, and crucial to the whole sonic aesthetic.<sup>312</sup> The cue-sheet analysis was to determine where in the plot industrial sounds occurred, in order to verify if particular response connotations coincided with similar moods, actions, and textures visible on screen. For example, if industrial sounds occurred in places in the film which were dark, violent, etc. To save time and space, relevant plot summaries, sonic and musical cue listings and detailed discussion of the main recurrent sonic motifs are presented in Appendix Seven.

Of course, the three films contain sonic elements such as babies crying, taps running etc., which are not specific to dystopian narrative or to industrial composition and are not included in this account. Conversely, the three dystopian films we are about to

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311 Many Japanese 'cult' films deal with cyberpunk or dystopian themes, particularly Manga films. The technologisation and Westernisation of Japan, and the Japanese industrial community makes the inclusion of such films very relevant to the study.

312 *Terminator 2* represents a turning point in cinematic sound convention. When *T2* was released in movie theatres, the Eastman Kodak company was attempting to launch a new digital sound format, Cinema Digital Sound (CDS), a 5.1 precursor to Dolby Digital. The five channels and optical encoding of digital sound allowed sound designers not only greater creativity in producing the sound, but also the ability to use digital sound in post-production.

discuss are not the only films to use industrial sounds.<sup>313</sup> In fact, industrial sounds recur frequently in advertising, as well as in cinema and television features.<sup>314</sup> I even found recurrence of industrial and science fiction sound in a nature program—BBC2's *Predators* series.<sup>315</sup> It is also possible to find such sounds in film where they do not represent threat, suspense or power—particularly where they function as literal sound effects, as when someone closes a heavy door, or drops a glass. Nevertheless, certain types of films have very specific conventions with regard to sound design (see Ribrant 1999) and the use of industrial sounds in dystopia is clearly purposeful. The next part of this account deals with the analysis of the sonic aesthetics of dystopian film.

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313 This is not to say that industrial has exclusivity on the use of dystopia, or that dystopias necessarily make use of industrial sounds (see for instance Michelsen 1998). Nor is it the only music to represent what has been interpreted as 'modern' life; Bruce Johnson for instance wrote of jazz, 'The dense and apparently dissonant collective improvisations, the fast tempos and rhythmic displacements of the early recordings, were perceived as 'sonic anaphones' for the dense, disjointed acoustic traffic of technologised contemporary life' (2000: 22). *Metropolis* of course was not examined because it is a silent film, and despite Moroder's 1984 score, remains without sound effects. Dystopia is also possible with other sounds and musical motifs, the most obvious being the clinical dystopian narratives like *THX1138*, *Fahrenheit 451*, *Logan's Run* or *Gattaca*. Nevertheless, there are still sometimes industrial elements in these films, particularly in the sound design, if not in the underscore.

314 Particularly where a logo is powerfully flung onto the viewing screen, as in Odeon Cineplex advertisement, etc.

315 BBC Worldwide LTD/Telstar (2000), TVE5045. What was interesting here was the use of electric or mechanical sounds for particularly threatening predators—a cheetah with an electric drone, a crocodile with fast percussion, scrapes, hisses and groans. Science Fiction sounds have also been used in other recent nature programs also—for instance in the Blue Planet series, in which the unusual deep sea creatures are imbued with alien sounds.

## 7.3 Results of the Film Analyses

What *The Matrix* shares with *Terminator 2 (T2)* and *Tetsuo* is the concept of industrial *leitmotif*. There are strong recurrent sonic and thematic industrial leitmotifs in each of these films. These sounds are not merely background sound effects, but, rather, appear frequently in critical places throughout the films. It almost seems as if certain scenes in the three films were chosen specifically for the purpose of including these sounds. *T2* and *Tetsuo* both contain scenes in factories, while subways and subterranean locations figure as frequent locations in *Tetsuo* and *The Matrix*. All three films in places feature post-apocalyptic landscapes. It should also be noted that sound effects are of primary importance not only for initial emotional reactions, but also for decoding some of the more obscure references in the films. For instance, in *The Matrix*, there are sonic parallels between the office space where Neo works and the pod-like world where he is really living, to inform the alert audience that reality is an illusion.

Before comparing specific sounds that industrial and dystopia share, it is necessary to summarise the findings discovered during the analysis detailed in Appendix Seven. There are several significant trends, notably in the *suspense* scenes of all of the films examined:

- ? the number of percussive sounds increases (e.g. *Terminator* scenes 44-46);
- ? the percussion gets louder (e.g. *Terminator* scenes 44-46);
- ? the bass drum or equivalent becomes more mechanical—more symmetrical, less syncopated (e.g. *Tetsuo* scene 14);
- ? metallic clanks are often used in place of drums (e.g. *Matrix* scene 164);
- ? there is an increased use of the snare drum: it becomes more militaristic (e.g.

*Terminator* scene A160);

- ? the base rate increases (e.g. *Terminator* scenes 44-46);
- ? the number and volume of sounds in the bass register increase (e.g. *Terminator* scenes 44-46);
- ? the surface rate increases, usually through the use of a metronomic ticking sound at semiquaver speed (e.g. *Terminator* scenes 44-46);<sup>316</sup>
- ? there will be pauses or breaks to *increase* tension.

Not only did common industrial sound effects occur frequently in our three dystopian films; their soundtracks also contained similar elements to those found in industrial music. What I will undertake in this next section then is an examination of the major recurrent sonic elements in industrial also found in dystopia, and attempt to explain how the music creates the specific sets of connotations presented in Chapter Six. I suggest here that industrial, in fact, includes several crucial signifiers of these connotations, and that, individually, those signifiers may help to invoke dystopian scenarios. While industrial shares other sonic elements with dystopian film (see Appendix Seven). I will therefore exclude such recurrent elements as the use of synthesiser from the discussion because it is a trait of many other styles than industrial. I will however include aeolian and phrygian modes, mechanical rhythms, percussion and noise, the emphasis on bass, ‘robot’ vocals, and the ‘celestial chorus’, because, as can be gathered from Appendix Seven, these elements are particularly strong.

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316 The surface rate is the number of audible notes rather than of beats per unit of time.

## 7.4 Major Recurrent Sonic Themes and their Connotations

### *7.4.1 Anguish, Darkness, Death and the Future: The Use of Minor Modes*

I mentioned in Chapter One that minor modes—particularly aeolian and phrygian<sup>317</sup>—are common in industrial music. Aeolian and phrygian tonality has become more prevalent in popular music in general in the past two decades, particularly in electronic and heavy metal music. Although these modes are not used in all industrial music, they are nevertheless common in a significant proportion of the industrial repertoire, especially in that of such popular recent artists as VNV Nation and Assemblage 23. Tagg (1997: 9) has asked whether the use of aeolian and phrygian modes is perhaps due to an influence from raj music, or whether, through creating something unconventional to Anglo rock and pop, the use of such modes may represent a musical subversion of Western values. In light of industrial's anti-music philosophy (see §1.2.6.1), it seems plausible that artists were striving for something that sounded different from conventional Anglo rock and pop. I would also suggest that the use of these modes may have developed out of video games music, which frequently use modes to signify 'other places'.<sup>318</sup> But these modes also have other connotations, which I will explore next.

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317 Dorian (popular in rock and folk) examples exist (e.g. Project Pitchfork's 'Carnival' 1998], but are less common to industrial.

318 Video games music is clearly an area that could be explored in future research.

Aeolian tonality is common in industrial, particularly a melodic 1-b6-5 pattern.<sup>319</sup> The primary distinguishing elements of the aeolian mode are of course the minor third and minor sixth intervals, both of which are frequently used in connection with their neighbouring semitones (second and fifth) to connote grief, anguish, or pain. Melodic minor thirds in the European classical repertoire were characterised by Deryck Cooke as ‘unrelieved tragedy’ and ‘unhappy endings’ (1959: 57-58):<sup>320</sup>

It is an undeniable fact that composers throughout the centuries, including those medieval churchmen who used the minor key to express a stern, sedate, or sober satisfaction, have expressed painful emotions by bringing the minor third into prominence, melodically or harmonically (Cooke 1959: 58).<sup>321</sup>

The minor sixth acts much in the same way as the minor third, engendering, argues Cooke,

a feeling of acutely painful dissatisfaction—a feeling of anguish, in fact ... one can hardly find a page of “grief” music by any tonal composer of any period without encountering it several times’ (1959: 64-72, 146-50).<sup>322</sup>

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319 See below, as well as, for instance, VNV Nation’s ‘Aftershock’ (1995) or Hocico’s ‘Untold Blasphemies’ (2001).

320 Although Cooke has been contested by some authors (see for instance Martin 1995: 38-42, Middleton 1990: 233), many of his ideas, while perhaps too generalised, remain indicative of some of the basic trends in the usage of such elements.

321 Cooke gives pages of references—including, significantly, the Dies Irae (the last trumpet in the Dies Irae of Verdi’s Requiem Mass) (1959: 57-64).

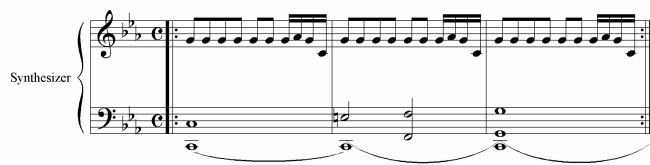
322 Some have heard the minor third and sixth as less anguished, however; Sonnenschein, although not indicating his source, suggests that the minor third has an elated, uplifting effect, and the minor sixth ‘soothing, but delicate and sad’ (2001: 121).

In Chapter Six the prominent use of a minor sixth was seen in some bars of ‘Dead by Dawn’:



Example 7.3. Project-X, ‘Dead By Dawn’

‘I Just Want Something I Can Never Have’ (Nine Inch Nails) is one of the most clear examples of a minor sixth capping note,<sup>323</sup> common in industrial music. In this song, a single bar with a minor-sixth cap repeats throughout the entire song without stop, emphasising the sadness in the lyrics; ‘I still recall the taste of your tears, echoing your voice just like the ringing in my ears’.



Example 7.4. Nine Inch Nails. ‘I Just Want Something I Can Never Have’ (5-b6).

Prominent minor sixth or minor third caps can also be heard for instance in Wumpscut’s ‘Mother’, Flesh Field’s ‘Lost’ and ‘Allegiance’, and Assemblage 23’s ‘Purgatory’.<sup>324</sup>



Example 7.5. Wumpscut: ‘Mother’ (1996) (2-b3)

323 By capping note I mean a note, often recurrent, which is the highest pitch in a melodic phrase.

324 Examples are prevalent particularly in recent industrial: for instance VNV Nation’s ‘Chosen’ (1999), Project-X’s ‘Infected’ (2002), K.I.F.O.T.H’s ‘Clandestine and Formidable’ (*Awake the Machines V.3.* 2000).



Example 7.6. Flesh Field: 'Lost' (1999) (2- b3)



Example 7.7. Flesh Field 'Allegiance' (2000) (1-5- b6)



Examples 7.8. Assemblage 23: 'Purgatory' (2000) (1- b6-5)

Emphasised minor thirds or minor sixths, some as capping notes, were also common in the dystopian films examined, even as part of *Terminator's* theme tune.<sup>325</sup>

Example 7.9. Brad Fiedel, *Terminator 2* Theme (2- b3) \*I'm having problems with the layout of this file. If you want to see the transcription email me.



Example 7.10. Don Davis, *The Matrix* (at the Helicopter scene) (first phrase capped b3<sup>rd</sup>, second capped b6<sup>th</sup>)

325 In fact, although there is no flat six in Terminator's most apparent  
melodic phrasing, there are minor sixths in the ethereal choir in the  
background during the theme song.





examples of phrygian ‘inflections’,<sup>328</sup> in several of the songs in Chapter Six:

synth



Example 7.12. Covenant: 'Hardware Requiem' (1992)

synth 

Example 7.13. Skinny Puppy: 'Harsh Stone White' (1989)

B. Gtr  
Sl. Bass

Example 7.14. Einstürzende Neubauten: 'Haus der Lüge' (1989)

bass ostinato of Flesh Field's 'Serene Image':

synth



Example 7.15. Flesh Field 'Serene Image' (2001)

or, with a minor sixth cap, in Wumpscut's 'Opening the Gates of Hell'

synth 

Example 7.16. Wumpscut: 'Opening the Gates of Hell' (2001)

Minor seconds were also found in the dystopian films, such as in *Tetsuo*

clav. right 

Example 7.17. *Tetsuo: The Iron Man* (1989)

328 That is, although the entire song was not in phrygian, there were  
elements of phrygian mode in it.

Which echoes the original *Terminator* film (1984): when the Terminator is shot through a window at Tech Noir, there is a motif repeated several times of D Eb C D.

The phrygian has been called the ‘austere’ or ‘severe’ mode, and is often referred to by many Westerners as ‘dark’, ‘heavy’, ‘sombre’, or ‘gloomy’.<sup>329</sup> William B. Kimmel has shown that phrygian inflections are common to Western ‘death’ music, specifically as recurring elements in requiems (in Rosar 2001: 110. See below). In the civil war saga *Cold Mountain*, novelist Charles Frazier describes it thus:

He could not have put a name to it, but the tune was in the frightening and awful Phrygian mode, and when the girl’s mother heard it she burst into tears and ran from her chair out into the hall.<sup>330</sup>

Acoustically speaking, the minor second is considered to have the strongest dissonance of all twelve notes in the Western chromatic scale (Berry 1987: 109-111), and feels particularly unstable in the bass registers. Cooke argues that the minor second represents ‘unrelieved hopelessness’, ‘hopeless anguish’ and ‘despair’ (1959: 78), and that

composers of all periods have drawn on its intensely expressive quality. Its tension is obviously akin to that of the minor sixth: it is an acute dissonance in relation to the minor triad, but whereas the sixth is drawn by semitonal tension down to the dominant, the minor second is drawn by semitonal tension down to the tonic. This means that whereas the minor sixth is an expression of anguish in a context of flux, the minor second is an expression of anguish in a

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329 See for instance the descriptions on  
[Http://www.soundconnection.com/c.htm](http://www.soundconnection.com/c.htm),  
[Http://www.mmissary.com/takecourage/theory5x.html](http://www.mmissary.com/takecourage/theory5x.html),  
[Http://www.scottharlan.com/forum.htm](http://www.scottharlan.com/forum.htm),  
[Http://www.musicalheritage.com/Classical/](http://www.musicalheritage.com/Classical/) (27/03/02).

330 [Http://wwchurch.uwctl.org/mountain.pdf](http://wwchurch.uwctl.org/mountain.pdf) (10/08/01).

context of finality; in other words, the minor sixth expresses an active anguish, the minor second a hopeless anguish (1959: 78).<sup>331</sup>

Although Cooke's claims may be a little exaggerated, his ideas are supported by the connotations found by listeners in Chapter Six. Although the aeolian and phrygian mode in isolation may not be able to exclusively represent a dystopian scenario, they do undoubtedly play a role in eliciting the 'sad', 'dark', 'anxious' and 'futuristic' connotations. But if phrygian tonality is common to Spanish and Arabic music, and we do not hear such music as particularly dark or gloomy, there must be other elements contributing to the connotations accounted for in Chapter Six.

#### 7.4.2 'Oppression', 'Violence': the Militant and the Mechanical

##### 7.4.2.0 Rhythm and Repetition in Industrial

Although modal tonality is important to *some* industrial music, rhythmic patterns are of particular importance to *all* industrial music. As has already been discussed, there was a keen interest amongst early industrial artists to explore non-tonal elements of music. Industrial rhythms are in general highly repetitive, in the sense that a single one or two-bar motif may be constantly repeated through an entire song.<sup>332</sup> Machine-based

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331 Cooke here refers to in particular Brahms' *Symphony no 4 in E minor*, Op 98 (fourth symphony) which begins with a phrygian minor second to emphasise grief and sorrow, written at a time when Brahms was dying (see Cooke). Phrygian inflections also occur in Haydn, Dvorák and Verdi's *Requiem* during the *Dies Irae*.

332 For instance, Einstürzende Neubauten's 'Die Befinlichkeit des Landes' on *Silence is Sexy*, 2000.

repetition has been an intentional and key part of the industrial sound, and it is sometimes felt by artists to relate closely to the political sentiments involved.

[Our] rhythms [were] based on conveyor belts, alienating work, instead of distracting and patronising dance pop... Industrial music was closest to journalism and to a documentary... of the savage realities of fading capitalism (Throbbing Gristle in Ford 1999: 7.18).

We are fascinated by disco aesthetics and the introduction of disco elements in the production of our music is not a novelty. It only affects the purification and apostrophizing of rhythm, which is—as regular repetition—the purest form of militantly organized rhythmic of technicist production and classicist beauty. Disco rhythm stimulates automatist mechanisms and co-forms the industrialization of consciousness according to the model of totalitarianism and industrial production (Laibach).<sup>333</sup>

Repetition is central to a machine aesthetic<sup>334</sup> and closely associated with rationalised assembly line production:

Machines imply repetition, standardization, automation... the subordination of the worker to the regime and rhythm of the machine—noise, monotony, impersonality, boredom (Walker, J. 1994: 39).

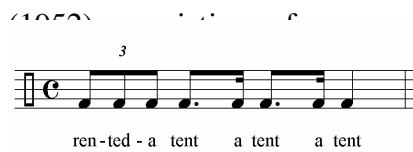
Connotations of ‘oppression’, ‘violence’ and ‘militant’ seem closely related to industrial’s use of repetition. ‘Militant’ sounding rhythms can be determined by examining popular onomatopoetic conceptions. Most of us are familiar with the ‘Little

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333 [Http://www.ljudmila.org/embassy/3a/exc/11.html](http://www.ljudmila.org/embassy/3a/exc/11.html) (21/03/99).

334 Likely because repetition to the extent present in the music simply does not occur in nature, only in machines (see Leeuwen 1999: 58). This is not to say that repetition does not exist in nature. However the kind of precise and metronomic, unwavering and unchanging pulse is virtually unknown. Of course, machines are often imperfect and can err in their repetition also, although our ideal of the machine is its perfect repetitiveness.

Drummer Boy's 'rum-pa-pum pum, rum-pa-pum pum'.<sup>335</sup> Kurt Vonnegut refers to a military drum sound used by the Martians for mind control in *The Sirens of Titan*



Example 7.18. Vonnegut: 'Rented a Tent' (my notation as to how I read the phrase)

and the Québécois onomatopoetic version of military drumming is described<sup>336</sup>

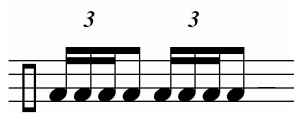


Example 7.19. 'T'auras pas ta pomme'

All three of these popular conceptions contain similar types of rhythms, perhaps resembling some of the standard military rudiments:



Example 7.20. The 'Ratamacue', which onomatopoetically resembles its name (Bruce and Emmett n.d.).



Example 7.21. The 'Single Stroke Four' (Bruce and Emmett n.d.).

These kinds of patterns (or similar variations of them) are fairly standard in industrial music, such as in KMFDM's 'Go to Hell' (1990), Rammstein's refrain of 'Wollt ihr das Bett in Flammen Sehen' (1995), Wumpscut's 'War Combattery (Fixed)' (1996), or Hocico's 'Child's Eternity' (2001).

335 This is not to suggest, of course, that this sounds particularly threatening, only to establish it is what has been conceived by some as militaristic sounding.

336 Thanks to Marie-Eve Bouchard for this latter reference.



Example 7.22. Snog: ‘Born to be Mild (Overture Mix)’ (*Electropolis V1* 1999)



Example 7.23. Flesh Field: ‘Allegiance’ (remix) (*Resist the Command 2*, 2001)

These rhythmic examples have clear similarities to war and battle music—such as that of Beethoven ‘Wellingtons Sieg oder die Schlacht bei Vittoria’ (1815), Liszt ‘Hunnenschlacht’(1857), or film music based on Holst’s ‘Mars, Bringer of War’ (1918).



Example 7.24. Holst, ‘Mars, Bringer of War’ (From ‘The Planets’ 1918).

Such rhythms are also familiar to science fiction viewers through *Terminator 2* (1992), James Horner’s ‘Aliens’ (1986), Danny Elfman’s *Planet of the Apes*, ‘Ape Suite #1’ (2001), the first attack scene of *Mindstorm* (2001), and John Williams ‘Imperial March (Darth Vader’s Theme)’ from *Star Wars* (1977). Tagg found a similar ratamacue motif in Abba’s ‘Fernando’, and linked it connotatively to ‘scary, militant, fateful, and inexorable’ (2000a: 43). It is also of course rhythmically the first repeating phrase of Beethoven’s Fifth Symphony, and has been said to represent ‘fate, knocking on the door’.<sup>337</sup>

It is also worth noting that the ratamacue embodies the morse code signal for ‘V’, for example as played on timpani and broadcast across the world during World War II by

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337 See for instance, <http://www.bbc.co.uk/dna/h2g2/alabaster/a584859.html> (24/10/2002).

the BBC, as ‘V’ for Victory (see Blades 1970: 68-69).<sup>338</sup> It was distributed on much of the allied forces equipment and products—from chocolate tins, badges, and clothing to airmail letters.

It seems logical then that descriptions of the more well-known pieces mentioned above might include mention of the mechanical, such as this description of *Mars*:

The full horror of *mechanised* warfare confronts us face to face in this bleakest of all tone poems. Its face is *unrepentent, unrelenting* and *merciless* and it offers us *no hope of redemption*. Thousands of pairs of jackbooted feet parade across the landscape, hurrying to their graves. Tanks pound cities into rubble. Bullets fly and bombs fall. Airplanes swoop low overhead.<sup>339</sup>

Industrial machinery is, like military drum patterns, staccato, percussive, repetitive and strictly controlled, yet often propulsive.<sup>340</sup> The connotations of the strict control associated with machines and the army regiment could indicate one of the reasons for the misinterpretation of the music as ‘fascist’ (discussed in Chapter Four). The sound of feet marching makes a natural four-on-the-floor pulse. Rather than the rock-and-roll motion of the backbeat (moving back and fourth), the four-on-the-floor just moves

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338 ‘V for Victory Sign’ (speech) 1941. Colonel Britton. *Fifty Years of BBC Broadcasting*. BBC/PYE 50a/50B (1972).

339 [Http://classicalsites.net/classical-composer-guide/modern-holst/](http://classicalsites.net/classical-composer-guide/modern-holst/) (12/04/02). My emphases. Mars also has other similarities with industrial, including loads of percussion, stable pedal bass line, and phrygian minor seconds.

340 See Tagg (2000b: 200-202, or 2000a: 50) on double propulsive repetition, where he writes that such a propulsive repeating motif leads to heightened expectation of something different.



forth relentlessly in unimpeded progression. Even industrial liner notes refer to this concept:

The Beat has become the negative image of the musical utopia it once usefully shattered. In short it has evolved into Utopia's exact reverse, a totalitarian regime dedicated only to its own preservation through the elimination of all dissenting voices... Of course, the speed with which Beat established its sole authority has plenty to do with its promise of order and a life regulated by strictly prescribed patterns of movement (Kopf 1991).

Writes Potter,

Whether it is the beat of revolutionaries' boots or that of a calming metronome, repetition has been negatively associated by many music critics with mechanisms of social control, and with a receptive and vulnerable listening public (1998:39).

Roget's Thesaurus (Kirkpatrick 2000) puts 'machine' as keyword under 'involuntariness' and offers 'automatic', 'subjected', 'controlled', 'cornered', 'drudgery', 'labourer', 'dogsbody', 'slave', 'robot', 'puppet' and 'pawn' as associated concepts (Collins and Tagg 2000). In fact, the notion of control and subordination seems closely tied to the mechanical. The word 'regiment' refers to a body of soldiers, but also, to systematisation. The uniform, of course, worn by factory workers as well as soldiers, is associated with a loss of individuality that signifies a subordination of the individual to the greater whole.<sup>341</sup>

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341 'The technical subordination of the workmen to the uniform motion of the instruments of labour, and the peculiar composition of the body of workpeople...give rise to a barrack discipline, which is elaborated into a complete system in the factory...dividing the workpeople into operatives and overlookers, into private soldiers and sergeants of an industrial army' (Marx 1973: 422). Moreover, assembly line production was in fact born in military arsenals, rather than economic organisations (de Landa 1996: 185, 191).

The kind of repetition seen in industrial creates a very strong tension because there is an expectation of change which is not met. It is in this sense that the driving rhythmic *ostinati*, particularly in the bass or on the bass or snare drum, contribute to an overall impression of the inexorable or unstoppable, and, by extension, to a sense of disaster out of control. Moreover, by further extension, this implies also technological progress, and it is not surprising then that such repetition might connotatively spell disaster in dystopian films that question technological progress, as in *Terminator 2* or *The Matrix*. After all, the Apocalypse itself is described as a battle or war, the Armageddon. Indeed, the battleground wastelands of war and industrial decay are frequent settings for dystopian films.

In fact, repetition has been part of the aesthetic of Hell itself for hundreds of years, if not longer. For example, Abrash (1983: 22) in his discussion of Dante's depiction of Hell, observes 'although it contains no machines in the literal sense, is pervaded by characteristics such as endless repetition and standardized operation usually associated with the idea of the mechanical'. Of course, Greek mythology's descriptions of Hell feature the same sort of monotony: for those such as Sisyphus and Tantalus, it is not the task itself, but its endless and fruitless repetition that makes it Hell.

Nevertheless, not all industrial music is repetitive Hell, because interruptions such as rhythmic suspensions play with the sense of predictability and repetition in the machine rhythms.

Such a break in process may arouse the keenest expectation... but expectation is satisfied after the rests, not because something which was missing is introduced, but because that which was interrupted is begun again (Meyer 1984:131).

Another example of playing with repetition is Covenant's 'Tabula Rasa: Club Mix' (1999) (Example 7.25), some elements of the rhythm remain stable for a time, while others trip us up. The song begins in 3/4 but quickly slips into 4/4, although the electric scraping sound effectively remains in 3/4. It is ironic, then, that this is called the 'Club Mix': any attempt to dance to these first thirty-two bars will undoubtedly result in chaos on the dancefloor:

## Tabula Rasa

Covenant

The musical score for 'Tabula Rasa' by Covenant is presented in four systems. Each system contains four staves: Tick (hi-hat), BD (kick drum), Elec. Scrape (snare), and Synthesizer (synth). The time signature is 3/4. The score is marked with measures 1 through 17. The percussion tracks (Tick, BD, Elec. Scrape) feature complex, syncopated rhythms, while the Synthesizer track provides a melodic and harmonic foundation. The notation includes various rhythmic values, rests, and articulation marks.

A similar effect occurs in Example 7.26, 'Mourn', where the kick drum and snare change patterns and trip us up if we attempt to follow along, while the closed hi-hat remains stable. The physical results of these disruptive deviations of pulse leave us confused and unsure.<sup>342</sup>

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<sup>342</sup> I can clearly recall having this in my car at some point, and my friend and I tapping along to it and then being thrown off completely.

Example 7.26. Apoptygma Berzerk, 'Mourn' (1998)



As we saw in Examples One and Four in Chapter Six, it is not uncommon to find some play with the time signature or with the pulse, although certainly there are many artists who primarily follow straight fours (e.g. Icon of Coil). As Björnberg indicates, symmetrical binary construction is the norm in popular music, and ‘deviations below the bar level disturb period and phrase structure and meter’ (2000: 356). Below the bar level, there are often occurrences of interruptions or disturbances—an off-beat added kick drum, or one removed—to disrupt the symmetry of the metre.

Mechanical sound tends toward predictability, until it signals some kind of breakdown or outside intervention. The predictability of a sound can lend a certain tranquillity and assuredness, or nagging oppression. An irregular sound can keep you alert, frightened, confused, or in fits of laughter (Sonnenschein 2001: 65).

These kinds of structural deviations are interesting, particularly because artists are primarily using sequencing software which by its nature encourages looping and repetition. Whereas such rhythmic variation is more intrinsic to human performance, the presence of a computer-generated variation means it is entirely intentional.

It could also be argued that artists are playing on those elements of the rational such as predictability, standardisation, and automation, that the machine in industrial breaks

down in a metaphoric defeat of the system. Others have for instance argued that the break-up of a repetitive beat is political (Potter 1998: 36). Nevertheless, it can also be perceived as political to not interrupt the beat—but rather to appropriate the beat (the power of the machine) for one's own means: to dance to it, to usurp its powerful potential.

Repetition, as we have already seen, is one of the most common musical tropes to be mentioned in relation to politics and social order. Adorno and others have argued that repetition is fascist, although the music most widely disseminated under twentieth-century fascist regimes bears little resemblance to industrial.<sup>343</sup> Nevertheless, most music is repetitive to some extent, so what is it that makes industrial repetition so fearful? Admittedly the repetition in industrial often goes to some extremes not seen in most other music (besides of course techno, etc.), but it is evident we must now look at *what* is repeating. I have already mentioned the bass register, and will return to this below, but first, it is necessary to look at the percussion and sound effects.

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343 Peter Wicke describes Nazi radio as 'dripping sentimentality and phoney pathos' (1985: 155) and goes on to say that 'those [songs] with appallingly bloodthirsty, inflammatory words... were therefore strictly the exception... The basic formula was the deliberate befogging of the brain... Musically speaking, the formula was boiled down to the primary mechanisms of sentimentality and high pathos' (1985: 157 *cf.* Warner 1972: 72). Statistically, sixty percent of Nazi radio was dance and light pop music, 8% 'serious' music while only 2.5% represented marches and folk music combined. The remaining 29.5% consisted of the spoken word (Wicke 1985: 154-155, *cf.* Steinweiss 1993).

#### 7.4.2.1 Percussion

Although there is nothing intrinsically violent or war-like about percussion instruments,<sup>344</sup> their use in industrial seems closely linked to connotations of violence and war. Industrial percussion is loud and at the forefront of the mix. It is unlikely that most Westerners are familiar with any music—with the exception of martial and non-Western music—that places such an emphasis on percussion.<sup>345</sup> It is worth briefly exploring military uses of percussion to understand one way in which it might now connote violence.

Besides the hisses, clanks and other non-musical sounds that may be associated with the military (see below), musical instruments have played a role in war since at least the ancient Egyptians.<sup>346</sup> Egyptian generals used trumpets and drums to improve morale and ‘stimulate greed for combat’ (Sonnenschein 2001: xix). In 31 B.C.E. at the Battle of Actium, it was said that Cleopatra ‘used numerous sistra, ... to intimidate the enemy’ (Blades in Hart and Lieberman 1991: 58).<sup>347</sup> In ancient China, giant drums

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344 Although drums incorporate the act of striking an object, I refer here to all percussion, including for instance rattles and shakers.

345 Of course, in non-Western cultures and the twentieth century avant-garde, percussion may feature more prominently, however it is not common for the average Westerner to be familiar with this music. Hip-hop might share a similar dependence on rhythm, but the emphasis on *percussion* is significantly less.

346 ‘A curious note on the root of the word “bellicose”, [*bellum*] meaning “warlike”, is that this word also is reflected in “bell” or “to make a loud noise” in Old English’ (Sonnenschein 2001: 184).

347 A sistrum, or metal or wood rattle, was used in ancient Egypt to ward off evil spirits and attract the attention of beneficent forces’ from

were pounded on relentlessly in battles, and ‘it was said that the side to make the greatest noise would win the battle’ (Blades 1970: 113).

The early war drum was primarily to energise troops and maintain morale, but by the sixteenth Century, European armies were using specific rudimental drum patterns for communication on the field.

Since the invention of rifles—and the ability to fire repeatedly at will—as well as electronic communication technology, the drum has become obsolete as a communication tool of war, but drums continue to be used as symbols of military strength, and armies continue to march to the regimented beat of a drum (see Hart and Lieberman 1991: 73).

As we have already seen, there are significant similarities between military march music and some industrial and dystopian music, but perhaps the most striking similarity is the prominence of the snare drum in some industrial songs:

starting at 0'20"

Example 7.27. Wumpscut, ‘Bunkertor Seiben’ (1995).

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about 2133–730 B.C.E (Hart and Lieberman 1991:33). The first two paragraphs of this section largely draw on Hart and Lieberman.



at 3'15"

Synth pad strings

Synth Bass

Drum Kit

h.h. cym.

snare

3 3 3 3

Example 7.28. Hocico, 'Cuando la Maldad Despierta' (1997 : note the single-stroke-four on the snare)

Example 7.29. (below). Flesh Field, 'Serene Image' (2001).

0'20"

Synthesizer

Drum Kit

c.h.h. cym.

snare

3

As well as being associated with the military, percussion is also associated with death. Saint Saëns's *Carnaval des animaux* includes the sound of skeletons played on a xylophone. Perhaps representing the sound of bones, the xylophone is often used in pre-mechanical motifs of death. Skeletons frequently were depicted as playing xylophones, kettle drums, or trumpets in early paintings (see Hart and Lieberman 1991: 112. Examples can be seen in the *Heidelberger Totentanz* (1485) or the *Old Woman* (Hans Holbein the younger, 16<sup>th</sup> C).



Figure 7.1 Hans Holbein the Younger. *The Old Woman*, 1538

Even non-Western traditions have included similar descriptions—the Tibetan *Book of the Dead* describes the sound of bone-trumpets, drums and skull tambourines at the point of death if enlightenment has not been achieved (*ibid.*: 113). In Medieval Christianity,

outside of the military, drumming was seen as an aberration that signalled the presence of Satan ... So strong was this bias that even after secular music achieved glorious expression in the orchestral works of Bach and Mozart, the drum was scarcely to be found in the orchestra (Hart and Lieberman 1991: 40).

In short, although percussion can be ambiguous, it has a long history of associations of with death, disaster, and evil.

#### 7.4.2.2 Noise and Sound Effects

In addition to percussion, noise and certain types of non-musical sound effects add to the threatening, violent, death and darkness connotations. There are many different definitions of noise that have been offered in musical and non-musical contexts, most typically relating to an interruption or disturbance (see Guffey 1986: 172, Gracyk 1996: 101-104). However what I will call noise here is unpitched<sup>348</sup> sound effects.

Most writers on the subject associate noise with social disruption. Gracyk argues noise can represent 'the subversive, the marginalized, and the repressed' (1996: 101). Noise is associated with something threatening that can interrupt, corrupt and disrupt a system. Lévi-Strauss associated noise-making instruments with death, decomposition, social disorder and cosmic disruption, calling them the instruments of darkness (Toop 1995: 66). Attali has written at length on the issue of noise and social control (1985).

It is in other words clear that our culture has imbued noise with a sense of power:

Descending from God (thunder) to the priest (church reverberation and bells) to the industrialist (factories, machines) to the rock'n'roll stars, the association of noise with power has never been broken in the human imagination. Within the context of a film, the louder environments usually will be associated with the seat of those in power as well (Sonnenschein 2001: 185).

It is likely that there are physiological reasons for some of the connotations just described, simply because noise is known to produce negative physical effects on humans. Noise can damage hearing, raise body temperature, and is capable of 'giving

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348 By unpitched I mean of no readily identifiable pitch, or having an unstable frequency rate.

rise to psychological discomfort and serious somatic disorder' including cardiovascular and digestive diseases, increased breathing, arterial hypertension, and blood pressure ('Fighting Noise' 1986: 39-41. *cf.* Sonnenschein 2001: 71). Infrasonic noise (below twenty hertz) causes pain (and has been used by industrial artists like Front 242). Ten to seventy-five hertz causes resonant vibration in the chest, throat and nose cavities (Wilson 1973: 534. *cf.* Sonnenschein 2001: 70).

The effects of noise are not only physical, but also psychological (see 'Fighting Noise' 1986: 11), including a decrease in frustration tolerance (Glass and Singer 1972: 87). This would seem to indicate that the aversion to such sound is biological in nature. Nevertheless, studies have also shown there are significant factors affecting what we *perceive* to be noise. Those who perceive to have control over noise find it 'less irritating, less distracting and less unpleasant ... Providing control reduces the sense of helplessness and decreases the magnitude of stress' (Glass and Singer 1972: 87. *cf.* Wilson 1973: 10, Cloonan and Johnson 2002). As Glass and Singer write,

a number of studies have shown that an aversive event produces lower autonomic stress responses if the organism can control its onset and offset, and it has been suggested that the mere perception of control is sufficient to reduce the physiological impact of a threatening event (1972: 31-32).<sup>349</sup>

Such links between noise and threatening or powerful connotations are also found in film, particularly in science fiction or horror, whose sound effects

usually carry a connotation to something threatening or evil;  
a violent fire; a baby crying; a dog howling; insect sounds;

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349 This could support Tagg's conception of 'sticking aural pins' in the sonic environment, appropriating power by making the biggest noise (1994).

constructions falling down, etc. ... Horror and violence are underlined through high volume (Ribrant 1999: 20).

It is particularly percussive sounds that are often central to this impact during suspense and horror scenes: 'Fast attack sounds loud. Loud sounds are more frightening than soft sounds, and sudden loud sounds are the most frightening of all' (Kelleghan). Industrial sounds and percussion, as we saw in the dystopian films, are frequently used to represent threat, power, danger, and violence.

Sound effects are important for the narration and for creating feelings of tension and horror... All the peak situations in films, scenes with great sentiment, tension or horror utilise effect sounds of various kinds to convey those emotions. The sound score is the emotional score (Ribrant 1999:2).

In order to explore the connotations of industrial noises, I first had to determine which were the most common.

#### The Most Common Industrial Sounds

One hundred songs which were representative of the sample in terms of their sonic aesthetic were analysed in detail to determine exactly what type of mechanical, industrial and man made sounds were present (see Appendix Six). Most of these sounds occurred throughout the songs, although in some songs the sounds were more prevalent in the beginning of the track.

Sounds that recurred in over 15% of the sample were given names which were then compared with similar terms in Roget's Thesaurus (Kirkpatrick 2000). The results can be seen in Table 7.1.

**Table 7.1 Thesaurus Synonyms for the Most Common Industrial Sounds**

| Sound       | % present in 15 songs | Thesaurus  |
|-------------|-----------------------|--|
| Buzz        | 62                    | resound, hiss, shrill, ululate, obstruct, drone, hum, whirl.   |
| Hiss        | 59                    | displays of indignity, sibilation, ridicule, despising, disapprobation, disrespect, seething and disapproval.  |
| Thunk       | 46                    | n/a  |
| Hum         | 39                    | blow, stink, resound, shrill, ululate, activity, whisper, moan, purr, sing low, vibrate.   |
| rumble      | 39                    | battle scene, roll, resound, growl, thunder  |
| wind        | 37                    | n/a  |
| clank       | 36                    | clang, be loud, loudness, roll, resonance, resound, rasp, bang, chink, clink   |
| thock/thump | 35                    | knock, strike, bang, nonresonance, pound, knock, rap, wallop, slap, strike, whack, hit, beat   |
| squeal      | 34                    | shrill, cry, ululate, inform, divulge, accuse, shout, yell, screech  |
| wobble      | 31                    | oscillate, be agitated, shake, quaver, flounder, vacillate, tremble, quiver, move unsteadily, dodder, teeter, waver, quake, stagger, shuffle, unbalanced, precarious, unstable                       |
| beep        | 29                    |  |
| explosion   | 27                    | discharge, blowout, blowup, eruption, outburst, firing, ignition, backfire, explosive: stormy, fiery, forceful, raging, wild, violent, uncontrollable, vehement, sharp, hysterical, frenzied, savage |
| crunch      | 27                    | rend, chew, pulverise, rasp  |
| Tinkling    | 26                    | resonance, resound, message, tingle: shiver, prickle, sting, itch, creep, grow excited   |
| laser       | 25                    |  |
| bang/slam   | 24                    | report, explosion, detonation, blast, blowout, backfire, sonic boom, peal, thunderclap, crash, smack, crack, knock, roar, hit, whack, cuff, crash, strike, whack, thump, fling, hurl                 |
| scrape      | 24                    | abrade, scour, rasp, grate   |
| tick        | 23                    |  |
| take off    | 17                    |  |
| rattle      | 15                    | clatter, noise, drum, clack, chatter, gush, bother, to talk with little or no meaning, put out, unnerve, disturb   |

Those synonyms dealing specifically with human emotions were nearly all negative emotions: ‘disturb, abrade, grate, stormy, raging, violent, uncontrollable, vehement, frenzied, savage, seething, etc.’ Many dealt with emotions of *anger*, *hate*, *agitation* and *frustration*. Those terms dealing with ‘actions’ tended to fall under the

categories of *violence* ('pound, battle, wallop, slap, strike, whack, hit, beat, growl, etc.') and *instability* ('shake, quaver, flounder, vacillate, tremble, quiver, waver, etc').

In an attempt to see how much connotative information can be carried in a single sound—and whether there would be any correspondence between answers—a small reception test was carried out. The ten most common sounds from the above list (those present in over 30% of the sample) were reproduced from samples of similar sounds. These were compiled and played to twenty-six people.<sup>350</sup> These people were asked to:

- a) name the sound;
- b) describe what makes these sounds;
- c) describe what they associate these sounds with.

The full results can be seen in Appendix Six. Twenty-six individuals hardly constitute a reliable statistical sample of the population, but their responses clearly suggest that the sounds they heard were semiotically loaded in a consistent manner. Moreover, most of the responses referred to violence and/or science fiction-related themes. Many of the responses were images of physical activity, many industrial-related: 'stampede on sheet metal', 'metal and ironmongers', 'arrow shot from laser gun'. Such images indicate that, far from samples sounding physically detached, they are 'seen' in the mind as having activity and motion. Use of such sounds, even out of context, appears in other

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350 Taking place in my home on June 15, 2001 and in a classroom in February 2002. The subjects consisted of IPM students, postgraduates and lecturers, four females and three males, of varying age and musical ability. Only two had any knowledge of my thesis work.

words to connote specific violent and science fiction related imagery. Remarkable in fact was the mention of specific dystopian films—just on the basis of hearing a single sound—*Terminator* and *Mad Max*.<sup>351</sup>

Mechanical sounds carry very specific connotations. For instance, Tagg's study of library music found that the sounds of technology were frequently associated with tension, threat, violence and crime. As he points out, however, the purpose of library music is often for the sale to industry for their own promotional materials, and therefore should contain quite optimistic industrial sounds

remembering that mood music companies rely to a large extent on public relations departments in industry as a source of their income, it is surprising that their collections contain so many negatively evaluated pieces of music for industrial or technological context and so many 'positive' pieces of 'nature' music (Tagg 1982b: 20).<sup>352</sup>

Despite its promotional intent, there were still titles which suggest negative activities such as 'March of the Iron Monster', 'Pollution' and 'Mobilisation'. Tracks found under the 'industry' heading of library music collections were commonly described as rhythmic, busy, forceful, tense, imposing, aggressive, heavy, determined, big, urgent and insistent. It is clear then that library music notions of industry are more positive

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351 Recalling that the sounds were not sampled from the films.

352 Many optimistic 'technological' songs tend not to use actual machinery, but stylised versions using traditional orchestral instruments. Honegger's *Pacific 231* for instance, stylised a train engine, but uses no non-musical sound. This is not exclusive, however, as the Futurists and others have used noise for more optimistic intents.



(only tense and aggressive are unequivocally negative), yet the forceful, busy, insistent and imposing aspects of industry are present.

Industrial sound effects collections have gone further in describing the connotations of a mechanical aesthetic:

Over an hour of rhythms generated by secular subhuman forces. Experience wheezing cylindrical broadcast noise, pulsating engines, vocal clippits in rhythmic stuttering layered over dying oscillators, world governments being terrorized and overthrown, small children being eaten alive by large machines...<sup>353</sup>

Of particular interest here are the political connotations of the sounds as both liberating (at least for the oppressed—‘governments being terrorized’) and oppressive—the choice of using innocents (small children) as the victims of the (large) technology, invoking images of the meek and helpless struggling against some massive tyrannical giants.

Not only industrial effects CDs, but also combat and disaster CDs use industrial sounds as negative effects.<sup>354</sup> Disaster nearly always contains the main industrial sounds: clanks (‘falling metalwork’), explosions, rumbles, thumps and thuds (‘collapsing mind shaft’), hisses (‘escaping gas’) and electric buzzes (‘electric shock’). On a Halloween sound effects page,<sup>355</sup> there were the expected sounds of evil laughs and creaking

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353 Noise Loops (Digital Kitchen sampler CD ad from website <http://www.dkitchen.com> [05/09/00]).

354 For example, *Essential Combat & Disaster Sound Effects*. BBC CD839 1977/1980/1990. See also bibliography.

355 <http://users2.ev1.net/~prank/freescarysounds.htm> (10/10/01).

doors, wind, werewolf howls and ghosts, but there was also the sound of glass breaking, and electrical currents.

In addition to industrial/mechanical sounds and noise, however, we have also seen recurrent use of science fiction sounds. Vivian Sobchack (1980: 217-19) lists the essential sounds of science fiction as:

The sound of machinery, alien in its buzzing and zapping, its mechanical ticking or clicking, inhuman in its effortless humming or in its metronomic mockery of human heart-beats; the other is the sound of natural forces which are usually outshouted in modern life by man-made noise, natural forces like the wind and the sea made alien and threatening by the amplification and isolation of their sound on the track-crashing surf, screaming wind, both become aural icons, metaphors for extreme desolation...warships emit whining rays which sound like the product of angry rotors.

Such a description seems to indicate that these sounds are allied with the unnatural and fearful aspects of science, pointing to something inhuman. Sobchack's analysis reveals a high prevalence of industrial music's main sounds in science fiction films, and that these sounds are allied with threat loneliness and anguish (her description using terms such as 'alien, threatening, isolation, screaming, crashing, extreme desolation, whining, angry, probes, hissing').

Although early science fiction films often maintained a traditional orchestral score, many of the effects used were alien and exaggerated, and often played with effects:<sup>356</sup>

1950s sci-fi films exploited the earlier analogue synthesizers' other-worldly effects, which worked so well

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356 For instance, *Dr Jekyll and Mr Hyde* (1932), which used bells played in echo chambers, gongs played backwards, and artificial sounds. See Hayward, forthcoming.

because they obviously were not being produced by anything natural on Earth. Until digital synthesizers became widely available, electronic sounds were applied mostly to the realm of weirdness (Sonnenschein 2001: 42. cf. Leeuwen 1999: 176).<sup>357</sup>

Such blatantly synthesised sounds are common to video games music (which are often narratively science fiction based), and to early science fiction music, but they are also common to other contemporary electronic music, some of which probably does not carry science fiction connotations. Another commonality between science fiction and industrial is the use of robot voices.

#### *7.4.3 We are the Robots: Alien, Alienation and the Mechanisation of the Voice*

The voice constitutes ‘the profoundest mark of the human’ (Middleton 1990: 262). It is one aspect of what makes us an individual: we can usually recognise people we know from their voices alone, and voice print software indicates the extent to which we can be distinguished by our voice. Effects on the voice are highly significant, as they disturb these patterns of individuality. Frith suggests ‘to disembodify a voice is to rob it of individuality’ (1998: 196).

As we have already seen (§1.2.4), industrial nearly always uses some form of effect on the vocals. *Vocal mechanisation* is the term I will use to encompass any processing of

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357 What Goodwin has found, however, is that ‘during the 1970s, analog synthesizers were labeled as “cold” and “inhuman” by rock musicians and fans of the day: by the 1980s, however, a new generation of musicians and listeners were regarding analog synthesizers as the very sign of human “feel” and “authentic expression”’ (in Théberge 1997: 208).

vocals that reproduces the sound of a machine—including for example a vocoder or ring modulator.<sup>358</sup> Such effects are most familiar through science fiction films that represent computer-generated robot, cyborg or android voices (hereafter called robots collectively).<sup>359</sup> Robot voices were heard in ‘Hardware Requiem’ in Chapter Six. This robot voice makes use of ADT, with the voice under some form of vocoding or ring modulation and reverb. The original voice signal has been removed, so only the effect remains.<sup>360</sup>

Vocal mechanisation is so common to industrial that it can be considered a style indicator, even though it has been used less in recent years. As connotations of robots occurred in those songs in Chapter Six which contained some obvious vocal mechanisation, I will make the assumption that such vocal mechanisation is often, though perhaps not always, associated with robots.

Despite a detailed review of many types of vocal effects, Lacasse’s study of vocalisation talks little about the mechanisation of the voice. The closest Lacasse (2000: 161) comes to the issue of vocal mechanisation is in his discussion of the

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358 Although other devices can be used to create such an effect—a simple effect such as Steinberg’s VST plug-in, ‘Chopper’ for instance can reproduce a similar sound.

359 The difference between robots, androids and cyborgs and A.I. Computer are that robots are an entirely mechanised ‘being’, an android is a robot in man’s image, a cyborg is a cybernetic organism, a robot/human hybrid. Computers with AI capabilities are immobile.

360 Thanks to Serge Lacasse for checking my interpretation.

Harmonizer, which—presumably when used in particular ways<sup>361</sup>—gives rise to ‘futuristic’ connotations, and to an interpretation as the most unnatural of all of the effects types he examined. He also discovered that harmonising was perceived as malevolent, that it felt very unstable, and that it connoted some degree of sadness. Lacasse, however, does not explore *why* these connotations occurred.

In order to understand the connotations of vocal mechanisation, it is necessary to explore the characteristics of those that typically have this effect—robots. Several robots from Western cinema and television were compared for common traits. The robots were selected because they are all very well-known and were from popular films or television shows.

**Table 7.2 Major Traits in the Characteristics of Robot Personalities**

| Robot/AI/Borg <sup>362</sup> | Film                                 | Characteristics                              |
|------------------------------|--------------------------------------|--|
| Gort                         | <i>The Day the Earth Stood Still</i> | Killer, obedient, sleek, silent              |
| T-800                        | <i>Terminator, Terminator 2</i>      | Obedient, evil later reprogrammed as benign  |
| T-1000                       | <i>Terminator 2</i>                  | Malevolent, emotionless                      |
| R2D2                         | <i>Star Wars</i>                     | Malfunctioning, curious, loving              |
| C3PO                         | <i>Star Wars</i>                     | Camp, bumbling, caring                       |
| Data                         | <i>Star Trek</i>                     | Camp, highly intelligent and benevolent, sad |
| Gigolo Joe, David            | <i>A.I.</i>                          | Sad, innocent, lonely                        |
| Borg                         | <i>Star Trek</i>                     | Malevolent, indiscriminate communistic       |
| Robby                        | <i>Forbidden Planet</i>              | Obedient, benevolent?                        |

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361 A Harmonizer can add vocal effects such as vocoding, reverb, delay, chorus, etc. but is perhaps most commonly used for pitch shifting (to a similar effect as the Auto Tuner). For more information, see manufacturer Eventide’s homepage, [Http://www.eventide.com](http://www.eventide.com) (19/10/01).

362 Not all of these robot characters had what has come to be a cliché robot voice. At this stage I was interested in the robots’ characteristics as a whole

|                    |                                     |  |
|--------------------|-------------------------------------|--|
| Frankenstein       | <i>Frankenstein</i>                 | Sad, lost, lonely, searching                             |
| Replicant          | <i>Blade Runner</i>                 | Lonely, lost, terrified                                  |
| Edward             | <i>Edward Scissorhands</i>          | Obedient, lost, sad (?).                                 |
| Maria              | <i>Metropolis</i>                   | Malevolent   |
| Hal                | <i>2001</i>                         | Malevolent   |
| Mark 13            | <i>Hardware</i>                     | Benevolent, obedient,                                    |
| Robocop            | <i>Robocop I, II, III</i>           | Benevolent, moral(?)                                     |
| Guardian, Colossus | <i>Colossus: The Forbin Project</i> | Totalitarian, moral (?)                                  |
| Tinman             | <i>Wizard of Oz</i>                 | Intelligent but lonely                                   |
| Andrew             | <i>Bicentennial Man</i>             | Searching, sad, lonely                                   |
| Iron Giant         | <i>Iron Giant</i>                   | Benevolent, sad, lost                                    |
| Daleks             | <i>Dr. Who (BBC TV)</i>             | Malevolent killers, obedient, totalitarian, emotionless. |

Table 7.2 shows some distinct trends then in how we perceive robots. Robots, although also shown as emotionless and immortal, are commonly anthropomorphised. They may be malevolent and indiscriminate, or they may be benevolent and morally superior. Frequently, however, they are sad, lost and lonely.

Several examples of robot, android, cyborg and computer voices were compared. There were several common traits that most (though not all) examples shared:

- ? there is a very limited pitch range;
- ? voices are quite staccato, with no melisma;
- ? there is no outwardly perceivable emotion in the voice;
- ? there are only short phrases: computers and robots did not embellish or exaggerate at all;
- ? voices often have some kind of mechanisation effect on them.<sup>363</sup>

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363 There were of course exceptions. Now that the technology can better imitate human speech, more modern robot figures had less effects or no effects on the voice (as in AI, for instance).

Mechanisation removes emotion from the voice—changes the rhythm to staccato and the pitch to monotone. The connotations of this effect seem to be largely dependent on the context of the song's lyrics and musical parameters, rather than the voice itself, although there are specific connotations of for instance a narrow pitch range. Leeuwen has pointed out that anguish is characterised by an extremely narrow pitch range (i.e. close to a monotone), on a mid-pitch level (1999: 95) while a completely monotone voice is common in machine-speech:

It is used, for instance, to present or represent the sacred in ritual chanting or drones, and in the presentation of machine speech; although it is not difficult to synthesize intonation, the stereotype of the monotone machine voice (of the Daleks in *Dr. Who*) persists (Leeuwen 1999: 172).

I would suggest that there are two main types of related yet distinct signification of robot voices in popular music: the novelty robot and the lonely robot.

#### 7.4.3.0 The Novelty Robot: Robot as Alien

Robot voices have often been used as novelty or for humour, particularly in electronic music genres. Their use is common in synthpop, disco or rave songs like Babylon Zoo's 'Spaceman', Kraftwerk's 'We are the Robots', Rational Youth's 'Coboloid Race', and even rock songs like Styx's 'Mr Roboto' or Black Sabbath's 'Iron Man'. In these cases the songs are usually about space, robots, or computers specifically, and therefore the robot is there to signify 'robot' or 'alien', rather than an aspect of humanity. Here the robot might mean the friendly 'Robbie' type robot, or the totalitarian Borg-style cyborg. There is very little use of robot as novelty in industrial

music, and therefore it is not of concern here.

#### 7.4.3.1 The Lonely Robot: Robot as Alienation

The robot as modern alienation is of course also present in other popular songs—Radiohead’s ‘Fitter Happier’ from *OK Computer* for instance uses Stephen Hawking’s robotic voice as such an expression. Robot voices representing alienation are quite common in industrial, and are typically in songs dealing with society (for example, Skinny Puppy’s ‘Smothered Hope’ (1986), Fracture’s ‘On Earth’ (1997), Covenant’s ‘Replicant’ (1992), GASR’s ‘Conspiracy’ (*Resist the Command 2*, 2001), Wumpscut’s ‘Wreath of Barbs’ (2001)). The robot in this case is often used to represent sadness:

It was planned to let Aleta sing/speak the title track, but it did not lead to the right sound/atmosphere, so I decided to let the robot weep.<sup>364</sup>

Brian Aldiss writes,

Robots are just lonely people... The robot is (generally) to be pitied. The robot is in many ways a shadow of ourselves. ...Robots are generally solitary since they represent outsiders or antiheroes in human society... Robots are lonely people because they exemplify current isolations inseparable from our industrial society (1982: 3 ff.).

Robots are typically lonely or alienated because they are different; they are outsiders, and they are often questing to obtain the ‘one thing’ that will make them insiders in a human world (emotion or freedom).

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364 Rudy Ratzinger (Wumpscut) on ‘Wreath of Barbs’ (*Wreath of Barbs*, 2001) in *Side-Line* #37:11.



Many have seen the appropriation of robot imagery as a metaphoric representation of alienation (see Dery 1996: 6, 88, 233). Baker found that

mechanization of the body, and metaphorically as the body politic, represent the conformity, over-organization and automation of life. The pressures and processes of production and consumption, the ubiquity of television and the penetration of mass communications into the everyday lives of the citizens commodify and reify their bodies and environments, transforming them into metaphorical or literal "robots" (1998: 23).

Jancovich has shown that alien figures (including robots) represent depersonalisation by appearing to be 'inhuman' and 'brainless' creatures of efficiency, to 'be human in every way except one: They lack emotion' (1996: 65):

The monster is therefore seen as a profoundly ambiguous figure which challenges social norms and so reveals society's repressive monstrosity... It is this conflict between outsiders and organised conformity which preoccupies most of the invasion narratives concerned with depersonalisation (Jancovich 1996: 1, 64).

To take a human voice and to disembody it—to turn it into the machine—implies the impersonality and standardisation of modern life in general. But in this case, the robot is a symbol for something that is lacking in humanity. The use of robot voices could then be interpreted as an expression of dehumanisation and alienation. The robot represents the ideal rationalised human: as we saw in Chapter Two, the word 'robot' originally meant labourer. It could be argued that we identify with the robot because we are being dehumanised, and recognise ourselves in the character.

In the dystopian films examined, the robot voice was used to represent both alien and alienation. In *The Matrix*, for instance, there are several mechanised screaming sounds, made, as sound designer Dane Davis points out, by overlaying various animal

screams in a chorus (in Sonnenschein 2000). These screams occur at the points of the death of squiddies, and during the shoot-outs with the agents. Here vocal mechanisation seems to represent a malevolent force, as in *Terminator*'s mechanical speaking (although it could be argued that the malevolence is in the loss of human aspects). In *Tetsuo*, however, the voice of the protagonist becomes increasingly mechanised as he loses his humanity and becomes closer to a machine, perhaps signifying the robot as alienation.

#### 7.4.4 *Expansiveness and Escape: The Celestial Chorus*

A second type of vocal disembodiment common to industrial is what I have termed the *celestial chorus*. The celestial chorus is quite important, as it occurs in many industrial songs, and in all dystopian films examined.<sup>365</sup> In the script to *Terminator 2*, it is described as: 'Wind blows through the desolation, keening with the sound of ten million dead souls'. Seventy examples of the celestial chorus in industrial songs were

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365 This celestial chorus is commonly used in films, and its placement is significant. For example, in *The Lost Boys*, the sound is part of the opening song, called 'Lost in the Shadows' which has the recurring lyric motif, 'thou shalt not...' In *The Secret Adventures of Tom Thumb*, it occurs when Tom's father awakens in a 'morning after' situation as dawn creeps in. In *Monty Python and the Holy Grail*, it occurs when God or the Holy Grail appears. In *The Simpsons*, it is part of the opening sequence where the clouds part. In *Stargate*, it occurs when the men step out of the stargate onto the unknown planet. In *Time Bandits*, it occurs at the time of a voice from the sky. In *Aguirre, Wrath of God*, it occurs when monks and conquistadors descend into the unknown in the Amazon. In *Dune*, it occurs right before and during the time the protagonist says 'The sleeper must awaken' along with 'truthsayer drug' and 'waking dream'. In *Raiders of the Lost Ark*, it occurs when the ark is found.

compiled and compared for similarities (see Appendix Eight). Most frequently, the sound was clearly a synthesiser, and usually a high pitch, although there were mid-range and low-range examples. The songs containing this sound for the most part shared several thematic angles, as their titles reveal:

Future/Time: 'Utopia', 'Prophecy' (twice), 'Endzeit', 'Time Machine', 'Weltuntergang', 'Vision', 'Nether Days', 'My Vision', 'Ewig'

Spirituality/Mysticism: 'False Prophet', 'Prophecy' (twice), 'Heaven is the Place to Be', 'Spread Your Wings', 'Silent Ceremony', 'Burning Heretic', 'Burning Angel', 'Tibet Gate', 'Screaming Saints'

Other-State: 'Fun with Drugs', 'Psi', 'Drugfall', 'Altered State', 'Hypnotized', 'Supermarket Dream'

Death, War and Apocalypse: 'Euthanasia', 'Blood', 'The System is Dead', 'Fatalist', 'World Warhead', 'War', 'Approach to Death', 'Ashes to Ashes', 'Bombblast', 'Endzeit', 'Everything Must Perish', 'Weltuntergang', 'Darkness'

Truth/Trust: 'Don't Trust Anyone', 'Never Trust Anyone at the Carnival', 'Conspiracy'

The same themes are emphasised in the lyrics and samples by what comes before, during or immediately after the sound in the song:

Flesh Field, 'Utopia' (Start): 'Our children will *live to see* that perfect world, which has no *war, famine, oppression or brutality*'

Assemblage 23, 'Anthem' (1'20, 3'50): 'We are *born* of stone and etched by *wind*, then cast aside to *live* or *die*'

Assemblage 23, 'Pages' (4'00): 'The *fairy* tale you sell is a *lie*. I read the *truth* behind your eyes'

Flesh Field, 'Prophecy' (3'54) '*Fate* is nothing more than *lies*, *prophecy*'

Decoded Feedback, 'Euthanasia' (Start) 'I'm able to organise the *last part of my life*'

In Strict Confidence, 'Heaven Is The Place to Be' (2'40): '*Heaven* is the place to be, after life and *death*. *Heaven* means *eternity*'

In Strict Confidence, 'Spread Your Wings' (Start): 'We as *angels*, each with one wing, must embrace so that we may fly'

Vnv Nation, 'Fragments' (Start): 'See the faces etched in stone, the frozen faces of multitudes, the songs of youth that sing *forever*, *immortal* thoughts of a myriad of *souls* that echo forth and on *forever*'

Vnv Nation, 'Legion' (Start): 'Enveloped in a sentiment, as sound that rushes over me, engage an impulse to pretend I have a *faith* as *pure*, not forgetting what it means to *dream*'

Project Pitchfork, 'Carnival' (0'20): 'Wasted earth, yellow sand, *no chance to live*, *hopes* have *vanished*, the drought makes me *dream*'

Covenant, '2D' (Start): 'I am the big man restless the living *past* and *future*, a fraction of a second and now is lost *forever*, my *mirror image* a picture in the static'

Snog, 'Headsand' (0'49) 'I will *cheat* like a politician, I will *lie* like the newsman, I will *deceive* you my friend'

Front Line Assembly, 'Prophecy' ('43, 2'50): 'Nothing seems to matter, the rain begins to fall, nothing, nothing to *believe* in; even *angels* learn to fall'

Controlled Fusion, 'War' (Start): 'And it *stays* on throughout the entire mission and shortly you'll see the A6 drop its bomb. There's an indicator that comes on the screen to show that the bomb's been released. And it hits the target and *destroys* it'

Covenant, 'Feedback' (0'10): 'I consume the *wind* that makes you cold and drink the *blood* of the bleeding *souls* to check your fear and hide the noise of the howling wolves that steals your voice'

Covenant, 'Stalker' (Start, 1'55): 'In *transit* you pass among the strangers of the world paying tribute to the thief who stole away your *shadow*'

Covenant, 'Tabula Rasa' (4'50): 'I'm *waiting* for the rain to fall *for days*. I'm longing for the flood to sweep this all

away'

Skinny Puppy, 'Chorlone' (Start): '...?...treeless...rotate idiom...?...taught to *destroy*'

Apoptygma Berzerk, 'Burning Heretic' (Start): 'The *holy* inquisition finds you guilty of *heresy* and you and your descendants must be cleansed in *blood*'

Fortificaton 55 'And Tomorrow Atlantis': 'Yesterday *never comes* and *tomorrow* Atlantis'

Angels and Agony 'Darkness' (Start): 'It *begins where it ends*, in *nothingness*'

Assemblage 23 'Disappoint' (Middle): 'Though *you are gone*, I am still your son, and while your *pain is over*, mine has just begun'

Wumpscut 'Ewig' (middle): 'Wir sind sind nicht, wir sind sind *nicht ewig*'

Front Line Assembly 'Everything Must Perish' (Middle): 'Above, *in the air*, there is no *despair*. We're waiting for the moment'

Front Line Assembly 'Conscience' (start): 'Anticipate for better days, our *hopeless world* slipping away'

Funker Vogt, 'Under Control': 'They are watching you from *far away*, everything is under their control'

It seems quite clear that the celestial chorus has several related connotations:

- ? awakening;
- ? truth (itself an awakening) and its opposite lies;
- ? the binary poles of destruction and rebirth;<sup>366</sup>
- ? the afterlife;
- ? mysticism, dreams, travel or other states and its accompanying disembodiment;

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366 Perhaps because it is within the presence of angels that those in Hell shall suffer: 'and he shall be tormented with fire and brimstone in the presence of the holy angels and in the presence of the Lamb. And the smoke of their torment goes up for ever and ever' (Revelations, XIV, 9-11).

? vast stretches of time or space.

These associations seem to be tied in with an idea of their being something beyond, something else or ‘other’ or of being in transit, of waiting for something to happen or to go somewhere. If the music contrasts the celestial chorus with the harsh sounds of industrial mechanisation, it may indicate some hope or pathos in the music, in the sense that ‘yes, this is reality, but there is more than this, there is something that transcends this’.

There may, however, also be intramusical grounds for the use of the sound. I suspect this effect in the music is in part to balance out the lower pitched sounds, as much as other female vocalisations or feedback often are, as artists have pointed out:

[industrial] songs have a stronger, big bottom end on them, and if you throw in a low or mid-range male voice, it doesn't stick out or offset it where a female vocal tends to be a little-bit higher and has a more "cutting-through" quality, and I find it kind of brightens up the whole tonal spectrum. You can get away with a bigger, darker deeper sound (Linda Lesabre of Death Ride 69, in Reesman 1999: 44).

The celestial chorus offers a binary opposition to the machine sounds acoustically and thematically then, as Table 7.3 illustrates:

**Table 7.3 Comparison of Traits between the Machine and the Celestial Chorus**

| Machine                | Celestial Chorus     |
|------------------------|----------------------|
| Physical               | Spiritual            |
| Secular                | Religious            |
| Repetitive             | Smooth constant      |
| Reality/mundane        | Supernatural/fantasy |
| Low                    | High                 |
| Staccato               | Legato               |
| Evil? (closer to Hell) | Good? (angels)       |
| rational               | Irrational           |

Bearing in mind that most industrial sound is located in the bass register, adding elements to the upper frequency range not only makes allowance for more sounds to occur in the lower register, but actually increases the power of the bass (see Sonnenschein 2001: 92).

#### *7.4.5 Darkness and Doom: Bass and the Megadrone*

Industrial songs are generally very bass-heavy, as we have seen on several occasions. Certain types of bass register activity are often associated with threatening sounds: watch any film and low rumbling or low steady bass notes will not be harbingers of happiness.

Often the bass can represent a threat, like the lurking omnidirectional danger of the *Jaws* theme (Sonnenschein 2001: 91-92).

There are biological, as well as environmental reasons why we hear low bass as frightening (see below).<sup>367</sup> Biologically, low sounds affect lower regions of the body than higher sounds.<sup>368</sup> Low sounds are also synaesthetically heavier sounds. In Western society low sounds tend to be dark, heavy sounds, while light sounds are sharp or shrill and higher in pitch (Tagg 2000b: 173). Indeed, although a stable bass line makes for confident-sounding music by providing a strong foundation, it is the extremely low sounds that also threaten this foundation—thunder, earthquake, volcanoes.

Low pitch is associated with threat, terror, fear, and doom, whereas high pitches are often associated with activity, lightness and sharpness (Tagg 2000b: 179). Things ‘hit you down below’ if very unpleasant or unexpected and we say we feeling ‘low’ if we are depressed; Hell lies below us, and we bury our dead underground. Heaviness also has a history of negative connotations: problems are said to ‘weigh heavy’ on one’s mind, and heavy objects are more likely to cause damage and personal injury. Theo van Leeuwen points out that high-pitched sounds are more likely to be produced by small people, small animals, small musical instruments and small engines, and so higher voices are seen as less threatening or dangerous (Leeuwen 1999: 108).

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367 This is not to suggest that frightening notes cannot be played in higher registers—the kind of screeching violins of *Psycho* for instance instantly discredit such a suggestion. Generally speaking, however, high sustains are to invoke a particularly empathic effect, and low sustains are for threat. Parts of this section are taken directly from Collins and Tagg (2000).

368 Low noises (10–75 hz) have resonant vibration in the chest, throat and nose cavities. For more on the biological, psychological and physiological effects of sound and noise see Kryter (1970).



There are several related types of lower bass sounds that are of concern here: a ‘megadrone’;<sup>369</sup> a foghorn-like drone, thunderous sounds (either on a large bass drum, low-pitched timpanis or bass register synthesised instruments), and plodding or restricted-ambitus bass-line, including the pedal point ostinato.<sup>370</sup>

Megadrones—deep sustained low bass drones—need little exploration as they are almost ubiquitously used in films in times of tension and suspense. Apart from during scenes of threat and evil in *Twin Peaks* (1990) or on every occasion the alien reptile mega-saucers appear in *V* (1983), megadrones boom forth throughout *Terminator*, *Tetsuo* and *the Matrix*, particularly in times of high tension. Megadrones were also found in many of the examples in Chapter Six, and are extremely common in industrial music.<sup>371</sup>

Foghorns—a kind of broken, unstable drone usually on an analogue synthesiser with many harmonics—are also quite common in industrial.<sup>372</sup> The T1000 model of *The Terminator* makes a similar sound. These sounds are undeniably like animals moaning

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369 I borrow the term from the ‘doomsday megadrone’ (‘*domedagsbordun*’) phrase originally coined by Anders Wintæus in the early 1980s during a popular music analysis seminar at the University of Göteborg. Thanks to Philip Tagg for the reference (24/07/02).

370 By pedal point I mean ‘the repetition or sustaining of a single pitch (in any octave) while the chords change around it’. It is also known as a pedal note or pedal-bass. An ostinato can also function as a pedal point (Karlin and Wright 1990: 241).

371 I should point out that these are not folk drones (see Tagg 2002a).

372 Hocico use them frequently. An excellent example is ‘At the Heart of it All’ by Nine Inch Nails.

in pain. Ray Bradbury's story 'The Foghorn' provides us with many connotations of the sound:

One day many years ago a man walked along and stood in the sound of the ocean on a cold sunless shore and said, "We need a voice to call across the water, to warn ships; I'll make one. I'll make a voice like all of time and all of the fog that ever was; I'll make a voice that is like an empty bed beside you all night long, and like empty houses when you open the door, and like trees in autumn with no leaves. A sound like the birds flying south, crying, and a sound like November wind and the sea on the hard, cold shore. I'll make a sound that's so alone that no one can miss it, that whoever hears it will weep in their souls, and hearths will seem warmer, and being inside will seem better to all who hear it in the distant towns. I'll make a sound and an apparatus and they'll call it a Fog Horn and whoever hears it will know the sadness of eternity and the briefness of life (Bradbury 1983: 434).

[... ] The Fog Horn blew. And the monster answered. "A cry came across a million years of water and mist. A cry so anguished and alone that it shuddered in my head and my body... Lonely and vast and far away. The sound of isolation, a viewless sea, a cold night, apartness. That was the sound" (Bradbury 1983: 436).

As well as being a warning of threat and danger, the foghorn sound is characterised by loneliness, eternity, fatefulness and darkness. Noteworthy, also, is the fact that the sound is visually without a source—we typically hear it coming 'from nowhere' rather than see it in action, perhaps leading to associations of 'eerie' or 'other-worldliness'.

Thunderous sounds are frequently used in films for tension also—particularly of course in horror films, where it is nearly always dark and stormy during scenes of intense suspense—but also in other films, including science fiction. For instance, in *The Matrix*, thunder, and a heavy bass-drum sound similar to thunder, occur at moments of impending doom. They sound throughout the removal of the bug from Neo's navel, and during the nuclear holocaust scenes. Low rumbling bass sounds often resemble

thunder. A poem by Wulstan (d. c. 963) describes the great organ at Winchester;

Like thunder the iron tones batter the ear, so that it may receive no sound but that alone...To such an amount does it reverberate, echoing in every direction, that everyone stops with his hand to his gaping ears, being in no wise able to draw near and bear the sound (in Sumner 1962: 36).

Another kind of recurring bass pattern for industrial is an insistent regular pedal point bass note. Insistent pedal points are used extensively in film music, most often to create tension. The plodding, repetitive bass notes common to industrial and dystopia can be heard for instance in Hocico's 'Slow Death' (1997), Laibach's 'Krst pod Triglavom-Baptism' (n.d.), or in dystopias like Danny Elfman's title theme for *The Planet of The Apes* (2001). The sound could be said to resemble a bell tolling, or a heart beat, but is perhaps most clearly like footsteps. Berlioz's 'March to the Scaffold' from *Symphony Fantastique* for instance uses the effect, but just about any suspense scene in any film will use a regular, strong pulse. The program notes read,

He dreams that he has killed his beloved, that he is condemned and led to the scaffold, and that his is witnessing *his own execution*. The procession moves forward to the sounds of a march that is now sombre and fierce, now brilliant and solemn, in which the muffled noise of heavy steps gives way without transition to the noisiest clamour (Cone 1971: 25).

Tagg and Clarida (2002) refer to such a plodding bass in *A Streetcar Named Desire* as 'the march of death', and link it with listener responses such as 'large', 'heavy', 'dark', 'catastrophe', 'threatening', 'ominous', 'brutal', 'unremitting', 'intractable', 'slow' and 'unpleasant'.

## 7.5 Hell: The Dystopian Archetype?

We have seen that several of these elements discussed above are associated in some

way with death and destruction. It is possible that the violence and darkness connotations of many of these sounds can be traced through a long history of Western use to conceptions of Hades/Hell.

Homer describes Tartarus as ‘the pit under the earth, where there are gates of iron and a brazen doorstone’ (Iliad 8.15), ‘dusky...awful hopeless darkness’ (Homeric Hymn IV to Hermes 258-259).<sup>373</sup> Milton’s descriptions include the sound of cymbal-like clashing of metal on metal;

Against the Highest, and fierce with grasped arms  
Clash’d on their sounding shields the din of war (book 1, line 667)

and of very loud percussion:

Though for the noise of Drums and Timbrels loud  
Their children’s cries unheard... (book 1, line 394-395)

rumbling/thunder, grating iron

Against the Torturer: when to meet the noise  
Of his Almighty Engine he shall hear  
Infernal Thunder (Book 2, p 30 63-66)  
With Impestuous recoil and jarring sound  
Th’infernal doors, and on their hinges grate  
Harsh Thunder, that the lowest bottom shook  
Of Erebus (Book 2, line 376)

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373 Greek Mythology: Tartaros the Pit  
[Http://www.theoi.com/Tartaros/Tartaros.html](http://www.theoi.com/Tartaros/Tartaros.html) (10/05/02). c. 800 BCE.

Dante's Hell of the Divine Comedy contains wailing voices, and thunderous rumblings;

Such became these foul visages of the demon Cerberus, who so  
thunders at the souls that they would fain be deaf (Canto VI  
32-33)

Although depictions of Hell in art cannot specifically tell us what Hell might sound like, the images imply what may be occurring sonically. For instance, echoes seem to be implied by the entrance into the mouth of Hell (usually like the entrance to a cave) in many early paintings (see for instance, Andrea da Firenze's *Descent into Limbo* in the Spanish Chapel of Santa Maria Novella, Florence, Breughel's *Dulle Griet* (1563), Herri met der Bles' *Hell*, Joachim Patinir's *Charon Crossing the Styx*, etc). Traditionally, Hell has been associated with volcanic areas (rumble of a tremor, steam from a geyser, unnatural warmth of deep tufa cave; subterranean life).<sup>374</sup> Early gods of volcanoes, thunder and fire such as Vulcan/Hephaestus were also associated with smithing, armoury and metalwork.<sup>375</sup> What is significant sonically about Hell's underground location is the sonic associations with the underground (notably, caves), which would enhance sounds with reverberation and echo,<sup>376</sup> creating very large sounds.

The wheels of torture are also used in medieval depictions of Hell, implying a creaky-clicking sound, and we can 'hear' chains rattle, scythes, knives and swords scraping,

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374 See Hughes (1968: 159) for more on Hell as 'the Pit'.

375 Hephaestus even made his own mechanical helpers to assist him.

376 See Lacasse (2000: 32-50) for discussion of the sonic properties of caves and other spiritual places.

hammers beating shields (as in Jan Mandyn's *Aeneas and the Cumaean Sibyl in the Underworld*, or Bosch's *Millennium*, [1505-1510] for instance), we can see steam and flames, the snakes that would hiss, and the iron-hinged gates of Hell as a massive entrance to the underground. Depictions of Hell do not include just non-musical sound; Bosch's *Millennium* triptych for instance depicts several musicians with their instruments, although most are for symbolic purposes (a bagpipe symbolising vain speech, the trio the original harmony of Paradise, fallen to Hell, etc.). The musicians in Bosch however, are dwarfed by their (largely folk) instruments; the drummer wears his bombardon, musicians are strung across a harp and lyre, carrying a trumpet like the cross, anally penetrated by a fife, described as creating 'an ear splitting din' (see Fränger 1951: 84-91). Indeed, above the musicians we see a pair of ears pierced with a large knife and several spears, implying perhaps a loud piercing noise. Stefan Lochner's *Last Judgement* (c. 1435-1440) depicts demons and angels fighting for souls—and demons are accompanied by kettle drums (nakers) and booming trumpets (c.f. Hart and Lieberman 1991: 41). The *End of Mankind* by Hans Holbein the Younger (1523-1526) depicts skeletons with kettle-drums, blaring trumpets, trombone and hurdy-gurdy (*ibid.*: 1991:113). Death becomes associated quite early on with metallic sounds—Thanatos wields a scythe. In Breughel's *Triumph of Death*, skeletons chop wood, blow horns, ring bells, and attack with various metal implements.

Modern-day films draw on these early depictions of Hell, and we can hear interpretations of the sonic properties. Hell in *What Dreams May Come?* is characterised by thunder roars, celestial choruses, hissing, and rattling chains which repeat in a very mechanical fashion, winches turn with a grinding sound. About two

thirds of the *Hellbound: Hellraiser II* film is set in Hell, one created of stone but one which also contains chains, pipes, steam, and electrical pylons. Hell, which uses reverberation and significant amounts of echo in the film, is characterised by a deep rumbling.

Of course, with the exception of the films, the depictions of Hell looked at have been created before the Industrial Revolution, and therefore machinery plays no real role; what is significant though is that the sounds implied by the scenes resemble those of the sounds of the modern-day boiler room and factory; the gate to Hell/Hades is bound in iron, there are smothering flames, clanking, rumbling, and the hiss of steam. Perhaps what dystopia represents is a modern-day atheistic secular version of Hell; certainly in light of the subtle aforementioned religious imagery in the films (*Terminator 2: Judgement Day* and *The Matrix*) this would seem to be the case.<sup>377</sup> It is likely early dystopias drew on the imagery of Hell to represent negative images of the possible futures—and the logical outcomes of the present.

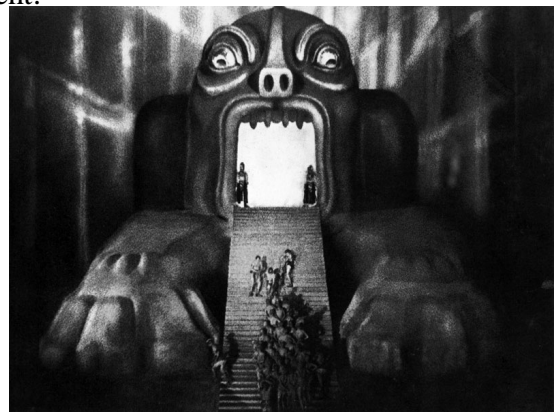
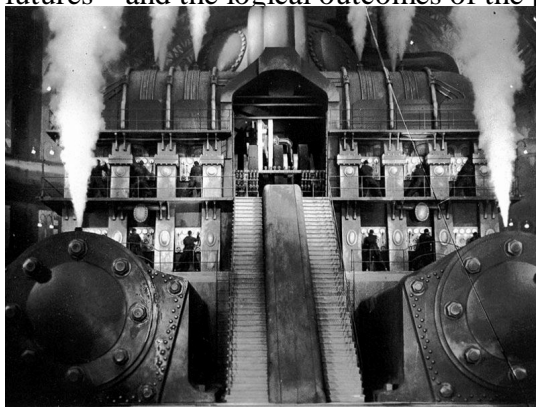


Figure 7.2 *Metropolis* Film Stills; The Factory becomes the mouth of Hell.

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377 In fact, in *Terminator 2*'s script, there are several references to Hell. The film is described at one stage as 'Dante for the nuclear age', and at several points is described as Hellish (see Scene 2, Scene 47C).

In fact, in *Terminator 2*'s script (Cameron and Wisner, 1991), there are several references to Hell. At one stage the setting is described as "Dante for the nuclear age". The sounds are also described in Hellish terms:

(scene 2) EXT. CITY RUINS - NIGHT) Same spot as the last shot, but now it is a landscape in Hell. The cars are stopped in rusted rows, still bumper to bumper. The skyline of buildings beyond has been shattered by some unimaginable force like a row of kicked-down sandcastles. Wind blows through the desolation, keening with the sound of ten million dead souls.

(scene 192) With an unholy scream, like the unoiled hubs of Hell, the whole rig slides on its side at 60 mph toward the steel mill.

Dystopia and Hell, to a large extent, are visually, metaphorically and sonically analogous. The two have become so analogous that recent depictions of Hell have begun to incorporate modern dystopian elements. Parts of the Hell of *Hellraiser* had electrical pylons in blue filter, the Hell of *What Dreams May Come*? had steel-girder framed buildings/ships, and the cover of the 2002 edition of Dante's *Hell* by Penguin Books features a photograph of drill bits:

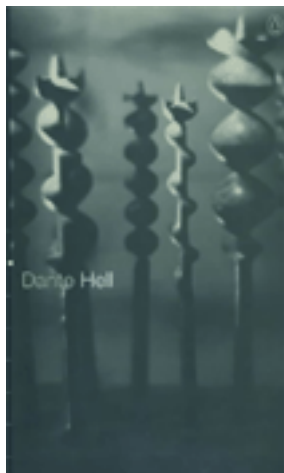


Figure 7.3 Dante's *Hell*.

The comparison between dystopia and Hell seems quite logical; both are sites of horrendous sounds and happenings. In this sense, dystopia, it would appear, has a long



history going back to pre-biblical notions of Hell and to the horrors of olden times. Nevertheless, there is a significant difference between dystopia and Hell: those in Hell, we are told, have done something to deserve their fate and been subjected to divine judgement, while those in dystopia (apart from, typically, those in power), are victims of circumstance. Moreover, those suffering the most in dystopian narratives—the outsiders—are quite frequently shown to be the most moral in the society, having built an alternate communal world where everyone has a place. It is significant, then, that we see industrial appropriate *dystopia*, rather than Hell.

## 7.6 Conclusion

It is perhaps the combination of aeolian and phrygian modes, machine-like rhythms, snare-drum percussion, noise, plodding bass lines, celestial choruses and other elements common to industrial which helps to situate the genre in an unambiguously dystopian future. That each of these elements is shown to connote a sense of militancy, dystopia, destruction, anguish, death, or Hell on their own is significant enough. The fact that they are combined emphasises the sense of technological dystopia portrayed in the lyrics, imagery, and other aspects of industrial.

Visions of dystopia and of Hell are characterised by very similar sounds to those used in industrial music. The link with industrial seems to be drawn from a long chain of connotations: industrial draws on dystopia, which draws on Hell, which draws on death, destruction and war. Although the sonic design of war films is outside the scope

of this thesis, the fact that many of the industrial sounds used originate in violence is significant.<sup>378</sup> What this seems to indicate then is that industrial music is situating the present day societal situation as a Hell on Earth. Writes Hughes;

To paint Hell, you must know you walk on a thin crust. Breugel and Bosch knew they did. They had witnessed... starvation, usury, the vandalism of *landesknecht* and prince; the corpse in the ditch, the public hanging and the burning roof cannot have been strange sights to them. Indeed, it is hard to think of any period in history (except our own) in which one could have looked about and seen more savage cruelties, more grotesque social inequities... It is not perhaps too facile a connection between history and art to say that Bosch and Breugel, unlike nearly every other great painter in the west, painted what they saw... What they saw was the acts of men, which were enough to collapse any faith in humanism (1968: 278).

Could it be said, perhaps, that such tormented visions of Hell (secular versions, at least) grounded in a historical reality are returning to the arts? We have seen that the frequency of dystopian narratives and discourses has increased tremendously in the past century, alongside a post-Darwinian decline in religious beliefs.<sup>379</sup> Perhaps the equivalent what Hughes regarded as a questioning of humanism in the work of Bosch and Breughel is also what some of our current artists are seeing: perhaps the displacement of humanism is most appropriately represented by a machine. This brings

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378 Probably—although it may be possible to chase the links even further, it seems that violence is at the heart of the sonic properties. For the ancient Greeks, it is likely that this meant the conflict of war, although for Milton and Dante the imagery seems to be taken from the various torture devices used during the middle ages—the wheel, the rack, beheading, flogging, binding, etc. See Abbott (1993).

379 Although reliable statistics can be difficult to obtain, organised religion certainly seems to have taken a much less important role recently in Western lives than in the 19th century. See for instance 'How religion fares in the U.S.A. - Yearbook of American and Canadian Churches' published on [http://www.ad2000.com.au/articles/1991/feb1991p6\\_672.html](http://www.ad2000.com.au/articles/1991/feb1991p6_672.html) (12/11/2002), or <http://www.statscan.ca> (12/11/2002).

us back to one of the original premises of the thesis; that industrial music is using dystopian imagery as a form of critique. It is the clear analogies to Hell, through industrial's connotations of dystopia, which is specifically being used as a critique of the socio-economic system we live in.



# CONCLUSION:

## Sounding a Warning to the Future

It's certainly not a music style which expresses a fluffy happy-ending mood. I see it as standing for a bleak, disillusioned vision of not only the future, but in a more subtle sense of the state of current affairs [Mark].

### 8.0 General Summary

This thesis set out to explore industrial music, and, in doing so, explore approaches to the study of genre. My primary aim was to provide the first comprehensive overview of industrial music. My secondary aims were to determine, by approaching my primary aim in various ways, what we might learn about popular music genres and the methodologies used to study them. I would like to explore how those aims were reached, what conclusions can be drawn, and what questions have been raised by the results.

In Chapter One I explored industrial's musical-structural and lyrical parameters. In discovering what the structural rules of the genre were, there were several important findings. It was revealed that fans did not appear to place much emphasis on the lyrical content of industrial songs. Lyrical analyses carried out showed an ambiguity and lack of consensus in their interpretation by fans and others. Nevertheless, fans had a general conception of industrial lyrics as being primarily dystopian-related. It was then suggested that fans were reading lyrics through the 'filter' of the context (whether musical or social). This raises questions about the emphasis in popular music studies on lyrical analyses, and the ways in which lyrical analyses have been carried out. Simon Frith, among others, has previously indicated that more might be 'said' verbally

through the vocalisation of the lyrics, rather than the words, and the empirical evidence found supports this contention. The finding also suggests that any analysis of lyrics should be situated within the context of the song's genre.

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? In Chapter Two, I examined the socio-cultural tradition upon which industrial draws and from out of which industrial grew. The account of industrial music provided makes explicit the range of crossover transactions between popular music and other forms of expression. The study of industrial therefore required an interdisciplinary approach, accounting for these other forms of expression.

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? For example, industrial's appropriation of the dystopian aesthetic drew on a long history of visual, verbal, and sonic representations going back centuries. In order to understand industrial, it was necessary to introduce musical representations of dystopia and Hell. Although there are many studies of the visual or the literary aspects of dystopia and Hell, this thesis is, to the best of my knowledge, the first to examine in detail the sonic properties of Hell. This examination included how this sonic aesthetic developed in the contemporary dystopia, and then has been reincorporated back into present-day representations of Hell. Allied with the modern representations of Hell was the symbolism of the machine aesthetic. Twentieth century Western arts are unique with respect to previous representational history in the overwhelming use of the machine as a metaphor. Relative to other expressive forms, there are few studies of the way in which technology is implicated in musical expressions in the twentieth century. Frequently, the modern sentiments of isolation, loss of control and alienation are represented in metaphors of machinery. There are few modern dystopian works that do not depict humankind suffering at the hands of science, rationalisation and technocracy. An exploration of this para-musical contextual aspect of industrial was crucial to the interpretation of the music and fan culture.

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? In the current multimedia cultural environment, industrial does not stand out as unique in drawing on many forms of media. Other popular musical genres may have similarly developed from out of—or been influenced by—the avant-garde, film, literature, visual arts, drama, television and video games, for instance. Although Frith and Horne (1987) have gone some way to developing this history, the range of crossover transactions is clearly an area that could be examined in greater detail in future studies.

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? Relating to this finding is the influence of film on industrial music, particularly techniques used to create or add suspense. From the sound effects, verbal dialogue, character style, to appropriating the scores outright, ideas are borrowed from film throughout the industrial genre. I suspect, however, that the influence runs on a two-way street, as many industrial musicians have become involved in film scoring, including Cabaret Voltaire, Einstürzende Neubauten, Skinny Puppy, Graeme Revell (SPK) and Brian Williams (Lustmørd). This mutual influence needs to be explored further and raises questions such as, how much is popular music influencing film scores, and to what extent have film scores influenced other popular music styles? To what extent is the pressure of film soundtrack sales changing the nature of music used in films, and subsequently the nature of film's influence on popular music? It would be particularly worthwhile to see a more developed argument about the growing importance of sound effects in film and their influence on popular music. I suggested briefly that, in fact, the codal competence of the audience—and perhaps their resonance with the music—is influenced by a familiarity with the para-musical references found in film.

Not only do these non-musical references require further investigation, but other popular musical genres which share elements and fans with industrial requires further academic attention; specifically, goth, Neue Deutsche Welle, synth-pop and disco. Work still needs to be carried out also on the many variations of industrial that may deviate from aspects of this thesis—particularly neo-folk and Noise. It will also be

up to future work to examine local variants of the fan community described in this thesis.

Behavioural, social and ideological rules were focussed upon in Chapters Three and Four. I addressed the media's reaction to the Columbine High Massacre by showing that, in fact, apart from a few fringe artists, industrial is primarily left-wing, using dystopian imagery as a form of critique. This critique involves, in part, a criticism of the technological and social 'advances' of our society, specifically rationalisation in the form of capitalist 'totalitarian' management systems. I have in fact, suggested throughout the thesis that this specific critique is particularly concerned with a late capitalist rationalisation implying several interrelated themes: control by the system, simulated interaction, efficiency and speed, calculability, predictability and standardisation, mechanisation and dehumanisation. These themes fit into the wider dystopian themes; the use of technology, the critique of the system, the apocalyptic outcome, and the creation of an alternative.

The thesis showed how many industrial fans attempt to regain some control through this creation of an alternative (e.g. alternative ways to dress, distribute and manufacture goods, learn musical skills and acquire instruments, etc), by embracing or appropriating taboos of the mainstream ideological system (fascism, communism, paganism, sexual fetish, etc.). This idea of an alternative, as indicated throughout the thesis, is hardly unique to industrial: most music cultures are somehow positioned as an alternative to something else.



The specific appropriation of dystopia helps to differentiate industrial from these other alternative groups. The reasons why dystopia is particularly popular with the industrial community are several. Dystopias are one of the traditional artistic ways to criticise the system, and have often taken a left-wing, fiercely anti-totalitarian and openly political position with an attempt at educating ‘the masses’ to the logical outcomes of the present, and many fans identified with such an ideological position. Dystopias of more recent decades also represent a ‘pop-critique’ of the West. Films representing a secular version of Hell complete with its associations of violence and apocalypse, like *Terminator*, for instance, which may include overt social critique, are pitched at a less politicised audience. Those fans who may wish to show disgust with the present capitalist system, but who have not yet consciously articulated their ideological position, may be identifying with the criticisms raised by these films, without having to articulate a solution.

Chapter Five elaborated on Chapters Three and Four, in terms of how industrial maintains itself on an independent level, and how this independence is reinforced by the structure of the music industry. I discussed the contradictory nature of the resistance against the popular mainstream. Dystopia, for instance, is undoubtedly popular culture—*Terminator 2* is one of the top grossing films of all time, and industrial itself, as I have shown, enjoys some popular success. Recent recordings like Paul Oakenfold’s remix of the *Planet of the Apes* theme, or Björk’s *Selmasongs* indicate an increase in the acceptance—and enjoyment—of industrial sounds in film scores and other popular music. Therefore, what defines industrial as a genre is at times determined by the ideological ideals imposed upon the artists or albums by the fans.

The boundary between the mainstream and industrial is therefore more fluid than some fans might admit. I discussed how these genre boundaries are established, learned and maintained through the marketing, mediation and distribution of the music. The negotiation between the alternative and the mainstream is indicative of the further genre boundaries drawn specifically around ideology. In other words, the co-option of an industrial aesthetic into the mainstream is something that fans have accepted, but genre is dependent on more than the sonic and visual—genres also contain semiotic and ideological rules. Accounts of genres, therefore, must not only be contextualised in terms of their historical situation and fan culture, as described above, but must also be conscious that *musical* aspects can be affected by these other rules of genre.

In examining the meaning of the music in Chapters Six and Seven, I showed that both fans and non-fans shared a codal competence to ‘decode’ the music, that is, to understand its basic message. Nevertheless, it was also discovered that the subsequent reading of that basic message differed. Those that interpreted the music as fascist may be hearing “oppression” in the music, but rather than identifying this connotation as, ‘dystopia often draws on totalitarian imagery to show the oppressive nature of the political system, and I identify with that feeling of being oppressed and alienated’, they are perhaps identifying the ‘oppression’ as an attempt to *be* oppressive.

To discuss this differentiation in interpretation, I introduced the term *supplementary connotation*, suggesting that genres help to create connotations for connotations, in other words, the richer meanings ascribed by the fan community. The interpretation of the music is contingent upon genre familiarity. In this sense, genres, as ‘sets of ... expectations’ (Fabbri 1981: 52), provide the reader with the knowledge of what to

expect from the text. The learning and understanding of ironic content—musical and otherwise—is frequently dependent on community involvement, where discussions arise and “wrong” interpretations are rebutted.

These supplementary connotations also suggest that those who listen to industrial regularly may feel some “resonance” with those meanings unique to fans. This seems to indicate that personal attachment to and involvement in a genre relies not only on understanding references (codal competence) and knowing how to interpret those references (supplementary connotations), but also *identifying with* those references. Any semiotic analyses of popular music, therefore, should address the issue of whether the interpretation of the music in question should be based on that of fans, or that of the general hegemonic viewpoint, as these may clearly differ. In order to decode the music as fans do, it is necessary to involve fans in the interpretation and to take into account the many facets of context as described above.

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## **8.1 A Final Word on Industrial, Dystopia and the Aesthetic of the Machine**

Industrial music as a genre remains relatively in the shadows, but the industrial aesthetic, as described above, has been well absorbed into the mainstream and turns up with increasing regularity in films and advertising. Perhaps more significantly than industrial turning up with increasing frequency, is the increase in dystopia. Just since the beginning of this research, there have been remakes of *Planet of the Apes* and the *Time Machine*. There have been other popular dystopias, including *Minority Report*,

*AI*, *Robocop 4* and *The Matrix*. *Terminator 3* and *The Matrix 2* will be released shortly. Liverpool city library has begun a section devoted to dystopia which it calls 'Future Tense'. Culturally, we seem to be fascinated with the future, but where have all the utopias gone?

It is possible that utopias have not disappeared, but merely become dystopian. One of the purposes of dystopia is to cause the audience to recognise the source of their alienation, to disturb their awareness and thereby bring about social change. In this sense, dystopias, and industrial through appropriating dystopia, share this purpose. In other words, it could be argued that industrial music, rather than being 'Satanic', 'oppressive', 'fascist' or 'violent', represents hope that we have the power to change the world, for if there was no hope in the future, there would be no sense in sounding a warning.