ARCADA

Audio Storytelling in Today's Visual World

The necessary components of a successful soundscape for an audio play

Jenny Ek

DEGREE THESIS	
Arcada	
Degree Programme:	Film & TV
Identification number:	15332
Author:	Jenny Ek
Title:	Audio storytelling in today's visual world: the necessary components of a successful soundscape for an audio play
Supervisor (Arcada):	Owen Kelly
Commissioned by:	

Abstract:

This thesis investigates the relevance audio storytelling has in today's visually reliant world and the components required for a successful soundscape for an audio play. Further information is given to the role of an active listener and their part in finalizing the creation of the world of the audio play by using their imagination. By the help of previous research it's presented that audio plays that incorporate sound effects and place characters spatially stimulate the listeners imagination and enhances their attention levels.

Application of these principles is then taken into account with regards to an audio play created as part of this thesis – *Purgatory – An audio adventure* - taking key consideration and applying aspects researched, such as: keynote, signal, soundmarks, dialogue, storyteller and soundframe. Therefore this thesis serves as a case study, demonstrating the creation of an audio play through all three stages: pre-production, recording and post-production.

This paper establishes that the market for audio plays in today's society is not only alive, but booming thanks to the availability of audio storytelling on different online platforms and the possibility to listen to them on portable devices. It also concludes that the creation of high-quality audio plays; from good recording to creative sound design, can only act as a gateway to increasing the popularity of this previously archaic media type.

Keywords:	Audio storytelling, audio play, soundscape, sound effect, active listener
Number of pages:	49
Language:	English

Sammandrag:

Examensarbetet undersöker ljudberättelsens relevans i dagens visuella samhälle samt vilka komponenter är nödvändiga för en lyckad ljudvärld i ett hörspel. Dessutom studeras den aktiva lyssnaren och hens roll i att slutföra skapandet av berättelsens värld med hjälp av sin fantasi. Med hjälp av tidigare forskning påstås att hörspel som använder sig av ljudeffekter och som placerar karaktärer i ett utrymme stimulerar lyssnarens fantasi och förbättrar hens uppmärksamhet.

Dessa principer tillämpades vid skapandet av hörspelet *Purgatory – An audio adventure* tillsammans med andra undersökta aspekter som: grundton, signal, ljudmärke, dialog, berättare och ljudram. Därför fungerar detta examensarbete som en fallstudie som demonstrerar skapandet av ett hörspel genom alla tre skeden: pre-produktion, inspelning och post-produktion.

Examensarbetet konstaterar att marknaden för hörspel i dagens samhälle inte bara är vid liv, utan blomstrar tack vare tillgänglighet av ljudberättelser på olika webb plattformer och möjligheten att lyssna på dem med hjälp av bärbara apparater. Avslutningsvis menas att skapandet av hörspel av hög kvalitet, dvs. väl inspelade och kreativt ljudplanerade, kan endast öka populariteten av den tidigare föråldrade mediaformen.

OPINNÄYTE	
Arcada	
Koulutusohjelma:	Film & TV
Tunnistenumero:	15332
Tekijä:	Jenny Ek
Työn nimi:	Äänikerronta nykyajan visuaalisessa maailmassa: onnistuneen äänikuunnelman äänimaisemaan tarvittavat osatekijät
Työn ohjaaja (Arcada):	Owen Kelly
Toimeksiantaja:	

Tiivistelmä:

Tämä opinnäytetyö tutkii äänikerronnan merkitystä nykyajan kuvakeskeisessä maailmassa sekä pohtii onnistuneen kuunnelman äänimaisemaan tarvittavia osatekijöitä. Lisäksi painotetaan aktiivisen kuuntelijan merkitystä ja tämän roolia kuunnelman maailman luomisessa mielikuvitusta käyttämällä. Aiemman tutkimuksen avulla esitetään, että kuunnelmat jotka hyödyntävät ääniefektejä ja sijoittavat henkilöhahmot tilassa stimuloivat kuuntelijan mielikuvitusta ja parantavat tämän huomionkykyä.

Nämä toimintaperiaatteet huomioonottaen ja niitä soveltaen tätä opinnäytetyötä varten luotiin kuunnelma, *Purgatory – An audio adventure,* jossa myös käytettiin tutkittuja osatekijöitä kuten: perusääni, signaali, äänimerkki, dialogi, kertoja ja äänikehys. Tämän vuoksi opinnäytetyö toimii tapaustutkimuksena joka havainnoi kuunnelman luomisen läpi kaikkien kolmen tuotantovaiheen: esituotannon, äänityksen ja jälkituotannon.

Opinnäytetyö osoittaa että tämän päivän yhteiskunnassa äänikerronnan saatavuus eri verkkoalustoilla ja sen kuunneltavuus kannettavilla laitteilla ei ole ainoastaan elävöittänyt kuunnelmien markkina-aluetta, vaan saanut sen kukoistamaan. Johtopäätöksenä korkeatasoisten kuunnelmien luominen, hyvätasoisesta äänityksestä luovaan äänisuunnitteluun panostaminen, voi ainoastaan kasvattaa tämän aiemmin peräti vanhoillisen mediatyypin suosiota.

Avainsanat:	Äänikerronta, kuunnelma, äänimaisema, ääniefekti, aktiivinen kuuntelija
Sivumäärä:	49
Kieli:	Englanti
Hyväksymispäivämäärä:	

CONTENTS

FOREWORD

Thank you to the cast and crew of *Purgatory* for making the creation of the audio play possible. Thanks to the amazing voice actors Christian Jull, Jonathan Hutchings and Minna Soisalo as well as the talented composer Viktor Gullichsen and web designer Ally Robins for offering their time and services.

A special thanks to the director and scriptwriter Vincent Weckström, who has accompanied me on this journey from the beginning without hesitation. Andrew Williams, thank you for patiently supporting me throughout this process and for proofreading so many times I have lost count.

Thank you to my supervisor Owen Kelly for your advice and for offering your voice for Father Jacobs.

Edinburgh 23.11.2016
Jenny Ek

1 INTRODUCTION

1.1 Background

Today's society is full of screens; TV's, computers, tablets, smartphones, billboards, outdoor displays etc. The emphasis in entertainment, information and even communication lies on visuals, which has been the case ever since the invention of the television and even more so after the dawn of digitalization. In a world like this, the importance of sound can easily be forgotten. However, the truth is that audio still accompanies us everywhere. Unlike visual media, audio does not require our full attention and can therefore be listened to whilst performing other tasks such as commuting, exercising and doing household chores.

Audio storytelling in the form of radio drama has been around for almost a century, with the first plays for radio being broadcast in the 1920's. The time of radio as the primary source of entertainment was, however, short-lived – the attention of the public turned to the television, which became popular in homes starting in the 1950's. Radio and audio storytelling has slowly started gaining popularity again thanks to the different online platforms brought forth by digitalization. Interest in listening to audio stories has increased due to portable listening devices and the creation of audio stories such as podcasts and audio plays are becoming ever more popular.

When listening to audio stories the visuals are created within the mind of the listener. The better the story can keep a listener's attention and stimulate their imagination, the easier it is for the listener to create mental images. Studies have shown that audio plays that incorporate sound effects and place characters in a spatial sense increase the capability of imagination and improves the attention (Rodero 2012). Thus, a successful soundscape in an audio play is rich, realistic and consists of many different components that serve to enhance the listener's imagination.

1.2 Purpose and question

The purpose of this thesis is to present the idea that there still is a need for audio story-telling and that audio storytelling might very well have a bright future. This thesis suggests that by focusing on the creation of high-quality soundscapes, consisting of a few specific components, audio plays could get an even bigger audience. High-quality in this case means well recorded, skillfully edited and overall creatively sound designed by sound professionals.

The aim is to demonstrate how an audio play is created, and to answer the following questions:

- Is there a need for audio storytelling in today's visual world?
- What are the necessary components when creating a successful soundscape for an audio play?

1.3 Material and methods

1.3.1 Purgatory – An audio adventure

The audio play *Purgatory – An audio adventure* was created at Arcada University of Applied Sciences as part of this thesis project. The creation of the approximately 30 minute, three-part audio play serves as a case study and demonstration of how an audio play can be created and it is recommended that the reader familiarize themselves with the play, which can be found online at http://purgatory.sonicoak.com/. The case study will not attempt analysis of the final audio play, but rather focus on the process of creating the audio play from a sound perspective.

The story is set in a fictional 19th century village and follows Arthur Cane, a doctor who loses his wife to an illness despite desperately trying to find a cure. He struggles to cope with her death; and upon attempting suicide he finds himself in the Underworld where, despite the orders from The Warden of the Dead, Arthur tries to resuscitate his wife in order for them to be reunited.

1.3.2 Theory

One of the main theories referred to in this thesis is that of R. Murray Schafer's, who in his publication *The New Soundscape* (1969) first introduced the term soundscape and divided it into three components: keynotes, signals and soundmarks. Schafer's theory is complimented by Torsten Wissmann's and Stefan Zimmermann's studies of soundscape in audio plays in *From hear to there – Sound and the cognitive construction of world in popular audio plays* (2010). Emma Rodero's study *See it on a Radio Story: Sound Effects and Shots to Evoked Imagery and Attention on Audio Fiction* (2012) serves as the main reference and proof for sound effects and sound shots enhancing the listener's imagination and attention.

Several other studies, articles, books and online reviews are also referred to throughout this thesis; the full list can be found at the end.

1.4 Scope

Audio storytelling consists of several different genres such as radio documentaries or features, podcasts and audiobooks. Whilst all of these will be mentioned and the theory could be applied, the main focus lies on fictional, full cast audio plays. This is to prevent the scope from being too wide and due to the fact that the case study *Purgatory* is a fictional audio play.

2 THE AUDIO PLAY

An audio play or a radio play is a dramatized, solely acoustic performance. The audio play often consists of a full cast of voice actors providing their voices for the different characters, accompanied by sound effects and music. A radio play, as the name implies, is broadcast on the radio whereas an audio play may be delivered by other mediums such as tape, CD or on the internet. Other synonyms encountered are audio drama, audio theatre, radio drama and radio theatre.

Although the audio play represents one form of audiobooks, it is often considered an independent genre within audio storytelling. This is due to the fact that in audiobooks sounds and music are either non-existent, or not as dominant as in audio plays; instead the narration serves to describe the scenery and action, creating an image for the listener. Audio plays enhance this experience by incorporating sound effects, noises and music and are thus "acoustic narrations that go beyond spoken texts of words read aloud." (Wissmann & Zimmermann 2010, p.374). Thanks to the use of different sound events, audio plays have more narrative possibilities and it's possible to present actions that occur simultaneously.

2.1 History of audio storytelling

The dawn of electrification in the twentieth century fundamentally changed the layman's relationship to his everyday acoustic spaces "by allowing sounds originating from a different space and time to be introduced arbitrarily into both public and private spaces." (Truax 2012, p.199). The industrialization and mechanical technology had introduced a new noise to the soundscape, whereby the scale of intensity mostly had a negative effect on humans. However, the electrification brought a new range of sounds both for private homes and public spaces - with loudspeakers music could be added to spaces such as restaurants; and radios became more common in homes.

Whilst the radio would begin to serve an important political role by recruiting nations for war using propaganda, it would also host entertainment programs, discussions and

provide news to families. During the Great Depression in 1929-1939 a profitable radio industry had grown and "a national audience consisting of the vast majority of Americans tuned in to a wide variety of entertainment and information that reassured and unified the nation through hard economic times and wartime strife." (Hilmes 2002, p.3). The years 1920-1950 are referred to as the Golden Age of Radio, where the radio served as the primary source of news, entertainment, comfort and company that people could rely on and tune in to together.

At the start, radio dramas consisted mostly of famous screenplays, operettas and Broadway musical comedies that aired on radio. The motion pictures would adapt their famous movies for radio broadcasting and "the radio theater listeners were offered a number of programs throughout each week during the afternoons as well as during the evenings, featuring the most famous movie stars of the early 20th century." (Sher 2013, p.19) The most popular programs would continue running on television, some of them simultaneously on radio and TV.

The first radio drama specifically written for radio in Great Britain is said to be *A Comedy of Danger* by Richard Hughes, aired on BBC in 1924. During a time of silent film, radio drama did the complete opposite to telling stories by moving images; it told the story using sound alone. For the transition from watching stories to only hearing them to be as easy as possible for the audience, the play is set in the dark where the characters themselves complain that they cannot see. *A Comedy of Danger* was also one of the first audio dramas to utilize sound effects; to acquire the effect of the characters being in an underground tunnel the actors were asked to put their heads in buckets (Crook, 1999).

The listeners, however, did not realize that the sound effects in their favorite radio programs were created by studio expert soundmen, and would assume that they were real; "We naturally assumed that the gunshots on those adventure programs were actually caused by the hero who was involved in exchanging gunfire with the criminal, or that the clip-clop of the Lone Ranger's horse, racing away while our hero called out, "Hi-Yo Silver Away!" was the real thing." (Sher 2013, p.20). Possibly one of the most famous broadcasts in American radio history is the Halloween episode of *The Mercury Theatre on Air* called *The War of The Worlds*. Directed and narrated by Orson Welles, broadcast

in 1938, it tells a story about an alien invasion on Earth. Due to it's realistic news bulletins it allegedly caused mass hysteria and panic amongst listeners who believed an actual alien invasion was taking place.

In the 1950's TV broadcasting became the most dominant medium in the Western world, distracting the attention from radio especially in the United States. However, with the TV serving the mainstream audiences, different social groups and ethnic minorities outside the mainstream would turn to the radio. It became a place where "those culturally excluded from television's address could regroup and find a new identity" (Hilmes 2002, p.4). Meanwhile Great Britain still continued producing radio drama on BBC quite successfully up until today.

2.2 Audio storytelling today

"Why should we be interested in radio drama? Aren't its limitations blatantly obvious? … What is the point of a performance if you can't even see the actors?" (Hand & Traynor 2011, p. 3). It is easy to overlook the importance of sound, or to ignore it altogether in today's world where visuals are emphasized and we are surrounded by screens. But, unlike video or print that requires full attention, audio accompanies us everywhere. Regardless of all the visual stimulation surrounding us "humans also engage in other activities; driving, exercising, household chores, reading and writing. Whilst doing these they often *listen*." (Hand & Traynor 2011, p.3).

It's not an unfamiliar sight to see people wearing headphones when they are commuting on public transport or walking through town. Back when radio was listened to in homes, music and audio storytelling would serve either as background or foreground noise in the soundscape. But starting in the late 1970's with the cassette-based Walkman, followed by portable CD players, people have had a great choice of different sonic material in their everyday surroundings. These portable appliances have introduced "a voluntary embedding of one soundscape within another, with the listener controlling not only the material but the degree to which it mixes with the surrounding environment." (Truax 2012, p.200).

This has had a huge impact in audio storytelling experiencing a boom. With different online delivery systems from podcasting to streaming, and the possibility to listen to material on portable devices, today's radio has evolved. It does not only cover live broadcasting of news, chat shows or music, but also radio documentaries and features - "crafted audio stories from reportage and investigative journalism to intensely personal narratives and poetic or impressionistic treatments of abstract ideas and local issues." (Mchugh, 2015, p.1).

The revival of audio stories from 2010 onward also derives from audio recording and producing becoming easily accessible to the layman due to digitalization. Almost all smartphones and laptops have applications and in-built microphones for recording purposes, eliminating the immediate need to spend money on high-end microphones and editing softwares. However, a basic studio-style recording setup is also still affordable. There are also numerous websites (i.e. – SoundCloud, WordPress, Tumblr) onto which audio stories can be uploaded and with the help of social media they can be promoted and disseminated for free.

The increasing popularity of listening to audio stories is supported by recent studies: podcast listening grew 23% between 2015 and 2016 in America (Edison research, 2016). A few popular podcasts and fictional audio dramas of the 21st century are *Serial*, *Welcome to Night Vale*, *The Leviathan Chronicles* and *We're Alive*.
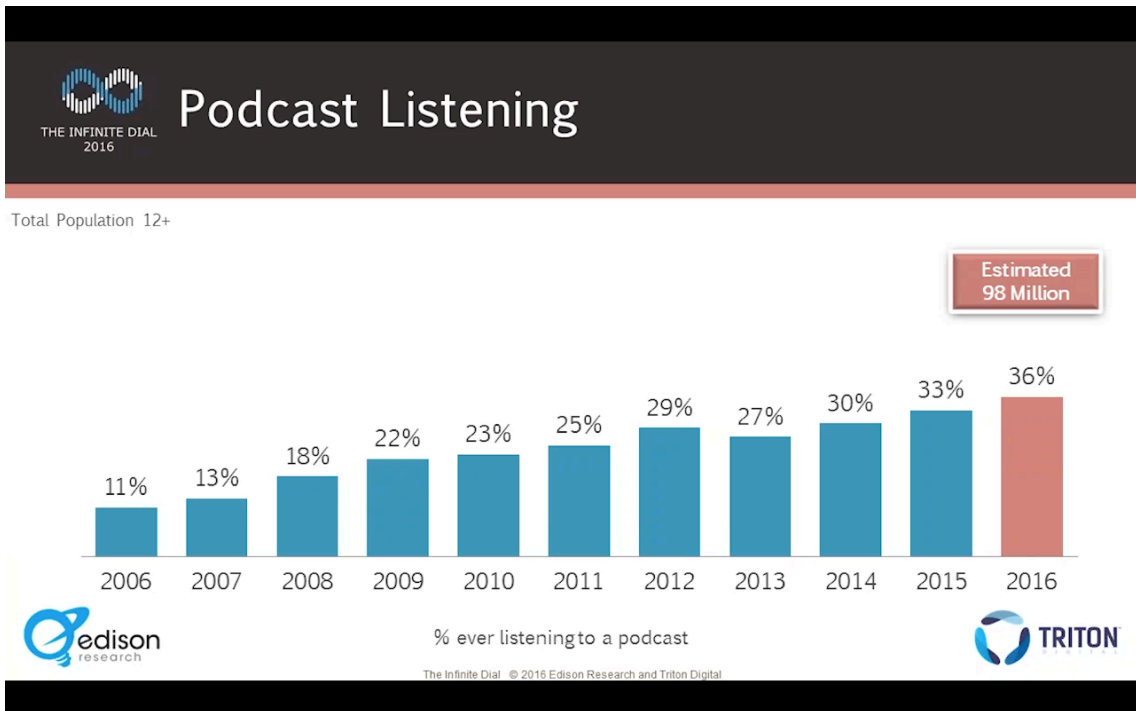
Figure 1: Statistics on podcast listening in America. Source:
https://vimeo.com/158637104

2.3 The active listener

Audio's non-intrusiveness facilitates revelation and the expression of deep emotions; it liberates speakers and voice-actors from being judged on appearance and thus offers a more equal form of media spared of judgement. The listener, who cannot freeze-frame as in video or jump ahead as in text, develops a "pact of intimacy" with the speaker as they accompany him or her in real time. Audio stories also transcend national boundaries and connect listeners from around the world (Mchugh, 2015).

Because of this level of intimacy the listener feels (and is) very much involved in the creation of the audio story as an active listener. Not only does the audio play rely on the listener to understand the different sound symbols and sound events occurring, but also requires them to use their imagination to put the finishing touches on the creation of the world. Listening to an audio play is therefore an individual, personal experience, and

"the creation of mental images needs active, voluntary attention from the listener." (Rodero 2012, p. 460). As stated by Pownall (2010, p.5);

> We always hear radio plays alone, even if we're sitting in the same room with other people. Unlike theatre, a social art, there is no togetherness to be had. The idea of a large audience in one place listening to a radio play is alien. The audience for sound theatre has no collective entity, being made up of millions of minds using independent imaginations guided by the play. Clearly, these minds are all open at the time of broadcast, but they are not in contact with each other. Wherever you travel in the action you are making the journey in the human mind and its knowledge of the real world. That is how this form of drama works, how the story has to be told – created for the mind only, the part of us that responds to language, and inner powers. The reader of a book can be said to be in similar position, lifting the story off the page by personal effort, making it live by use of one imagination – the author's – working within the other – the reader's.

Audio stories that use sound effects and sound shots enhance the listener's attention and creation of visual images significantly, compared to those without them (Rodero, 2012). The soundscape in an audio play is a reduced version of the real soundscape it's representing, consisting of just a few carefully chosen sound effects. The reduced soundscape is then completed and brought to life within the mind of the listener, who is able to associate sounds with certain types of settings.

An audio story consisting only of dialogue stimulates the listener's attention less; the mental images are created with greater difficulty and need more time. The stability of the verbal stimulus that lacks variation also results in reduction of concentration and interest. An audio story with added sound effects and sound shots (changes in sound intensity, situating actions and characters in the spatial sense) immediately generates more vivid, detailed and lifelike visual images in the mind of the listener, also with greater ease. The use of sound shots also add a sense of reality (Rodero, 2012).

3 SOUNDSCAPE

The term 'soundscape' has already been mentioned a few times in this paper. In order to understand what we hear in our everyday surroundings and of what components the world in an audio play is created, it is of great importance to get familiar with the term and the meaning behind it.

3.1 The soundscape

The soundscape, a term first introduced by R. Murray Schafer in his publication *The New Soundscape* (1969), refers to the ever-present noises in our sonic environment. It is a combination of sounds that arise from the surroundings; both from the natural acoustic environment (the sound of nature, animals, weather etc.) and environmental sounds created by humans (conversation, mechanical sounds, music etc). Soundscape studies, also known as studies within *acoustic ecology* or perhaps *eco-acoustics*, are the studies of the relationship between the living beings and the sonic environment around them.

"We may speak of a musical composition […] or a radio program […] or an acoustic environment as a soundscape. We can isolate an acoustic environment as a field of study just as we can study the characteristics of a given landscape." (Schafer 1994, p.7). Still, it's easier to create an exact impression of a landscape than it is of a soundscape. With just one photograph it is possible to capture an immediately evident impression of a landscape, whereas re-creating a truly authentic and convincing image of a soundscape requires potentially thousands of recordings and measurements.

Therefore, for a soundscape analyst as well as for a sound designer about to embark upon the recreation of a soundscape, it is important to determine the different sounds a specific soundscape consists of. As an example, what can we hear when we are standing by the seaside? What makes it unique from other environments? Perhaps waves flowing in, hitting against rocks, sailboats clunking against moorings, water splashing, seagulls crying above, wind howling, sails flapping, the wooden pier creaking, et cetera.

A combination of the aforementioned sounds can be used to successfully create a seaside soundscape. It is the sound designer's mission to choose the key components needed to recreate the soundscape; using only the cry of seagulls may be enough for the listener to recognize a seaside setting. However, every listener's interpretation of sounds is subjective and reflects on their previous experiences, knowledge and understanding of different sound symbols. "They [listener] will often have no direct experience of what something *actually* sounds like but nonetheless have highly developed expectations of what it *should* sound like. Our [sound designer] problem is to decide how highly we value authenticity and to what extent we are prepared to be pragmatic and give the 'public' what it wants" (Gibbs 2010, p. 81).

3.2 Soundscape components

All the sounds that together form a soundscape have different purposes and can be divided into different components, as introduced by Schafer. He categorizes the main themes of a soundscape by distinguishing between *keynotes, signals* and *soundmarks*.

3.2.1 Keynote

"Keynote is a musical term; it is the note that identifies the key or tonality of a particular composition. It is the anchor or fundamental tone and although the material may modulate around it, often obscuring its importance, it is in reference to this point that everything else takes on its special meaning." (Schafer 1994, p.9). Keynote sounds are the core of the soundscape, they are the base and ground on which signals and soundmarks become noticeable. The keynote sounds in a landscape are for example birds, wind, traffic and water. They are influenced by the geography and climate; a small village situated in the Finnish Lapland, on the edge of a forest with a river flowing through it, will have different keynote sounds depending on the time of the year. During summertime the water in the river will flow, birds will chirp and the wind will rush through the leaves in the trees. At the heart of winter there is a stillness, an almost silence; the river will have frozen, most of the birds have migrated to the south and the trees have dropped their leaves only to be covered by snow.

Keynote sounds are often not listened to consciously by those who are surrounded by them. Schafer explains that many sounds possess archetypal significance to people hearing them and they might imprint themselves deeply in their minds. "Keynote sounds are, however, noticed when they change, and when they disappear altogether, they may even be remembered with affection." (Schafer 1994, p. 80).

3.2.2 Signal

Signals, unlike keynotes, occur for limited periods of time and are foreground sounds that are listened to consciously. Obviously, with a focused mind any sound can be listened to consciously, even keynote sounds, but Schafer makes it clear that with signals he refers to sounds that *must* be listened to. These sounds include warning signals such as horns, sirens, whistles and bells.

Some of these signals, for example the horns and ship whistles, form various codes that can be interpreted by people who understand them and their symbolism. "…these acoustic events can only be adequately recognized when the relevant symbolism is understood". (Wissmann & Zimmermann, 2010, p. 375) Schafer makes an example of the post horn; "The post horn also employed a precise code of signals to indicate different types of mail (express, normal, local, packages) as well as calls for arrival, departure and distress, and indications for the number of carriages and horses…" (Schafer 1994, p.47).

3.2.3 Soundmark

The term soundmark is based on the term 'landmark'. It describes an event that is unique and recognized by people in a certain community. "Once a soundmark has been identified, it deserves to be protected, for soundmarks make the acoustic life of the community unique." (Schafer 1994, p.10). Examples of soundmarks include the melodic chime of London's iconic Big Ben and the thunderous explosion of the one o'clock gun in Edinburgh.

Like a signal, the symbolism behind a soundmark needs to be understood. In addition to that, in order for a sound to be a soundmark it "must also influence the formation of a community's identity or the uniqueness of a region…" (Wissmann & Zimmermann 2010, p. 376).

3.3 Soundscape in audio plays

As the main focus of this thesis is the soundscape in audio plays, the three-way break-down into keynote, signals and soundmarks is insufficient because it mainly covers the environmental part of the story. "The soundscape of an audioplay describes the acoustic transformation of a text that has clear social associations and which must be read or listened to accordingly." (Wissmann & Zimmermann 2010, p.374). Thus, Wissmann and Zimmermann present three additional distinct elements for audio drama; *storyteller, dialogue* and *soundframe*.

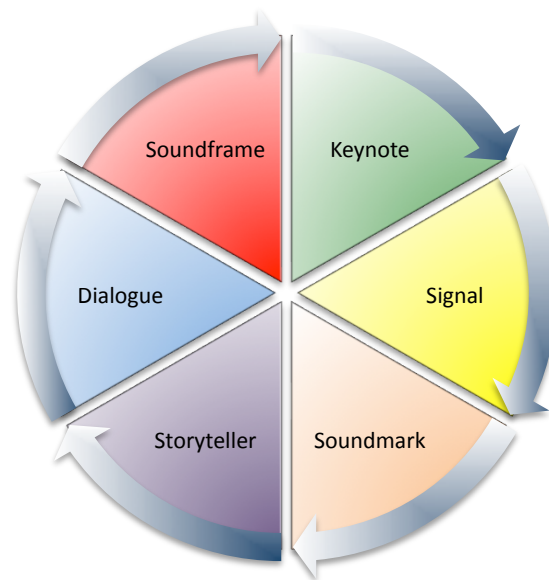*Figure 2: Components of the soundscape in an audio play.*

3.3.1 Storyteller

The storyteller is the all-knowing narrator who presents the story. He is used to imply the change of action, to recap or preview events and to interrupt action where the storyline picks up later in the same spot. "A storyteller also lends a hand in creating the world by verbally describing the places of action…" (Wissmann & Zimmermann 2010,

p.376). In other words, locations, subjects and action that are hard or impossible to describe using keynotes, signals and soundmarks, can be described using the storyteller:

"STORYTELLER (WARDEN)

Arthur awoke in a dark chamber of metal and stone. This place has been called many things through the aeons; Hades, Hell, the Underworld... It is the realm of the dead, ruled and watched over by their Judge. Me." (Purgatory e2, t0:18-t0:36)

As can be interpreted from the transcript of 'Purgatory', the storyteller is used to help describe the Underworld setting. However, the storyteller being one of the actual characters participating in the dialogue (The Warden) he does not perfectly fit in the category of an all-knowing narrator. What further complicates it is that the storyteller changes in episode 3 from The Warden to the protagonist Arthur Cane.

"STORYTELLER (ARTHUR)

Her form was frail and shifting like mist, but she was as beautiful as ever. I sat there, looking at her in disbelief. I was afraid that the moment I looked away, she would disappear. (Purgatory e3, t3:50-t4:03)"

This way, the listener gets both a more detailed description of what the character (Sarah) appears like, and also a better understanding of the reaction and thoughts of Arthur when he encounters her. Using two characters from the story as storytellers, in this case The Warden and Arthur, might not be completely relatable to an all-knowing storyteller, rather it gives the listener a description of the events from the point of view of the protagonist and the antagonist.

3.3.2 Dialogue

Dialogue is a conversation between two or more characters in the story. The dialogue helps the story move forward and lets the listener get to know the characters. Just like the storyteller, it also "provides references to the environment of the persons in the story." (Wissmann & Zimmermann 2010, p. 376). What can be described in a book by text or in a film by visuals, must intelligently be incorporated in the dialogue.

"WARDEN

This door leads to the living world. You are not dead yet, so if you wish, you can still return to your body and live again. I'm leaving the key here, on the door, the rest is up to you." (Purgatory e2, t6:11-t6:27)

The dialogue guides the listener to understanding that the characters are standing beside a locked door, by which The Warden leaves a key.

3.3.3 Soundframe

"A soundframe is implemented to underline the events or the change in timeframe or place of action." (Wissmann & Zimmermann 2010, p.376-377). It is often a musical insert (not to be mistaken by the narrative background music) that includes the introduction and epilogues. Before digital media, the soundframe was used to ease the interruption of the end of cassettes and LPs, "thus the soundframe is an event that has an influence on the atmosphere of the audioplay but no direct impact on the creation of the world of the audioplay." (Wissmann& Zimmermann 2010, p 377).

The soundframe in *Purgatory* is formed by having an introduction which lets the listener know who has produced the audio play and that the use of headphones is recommended, and also end credits listing the cast and crew.
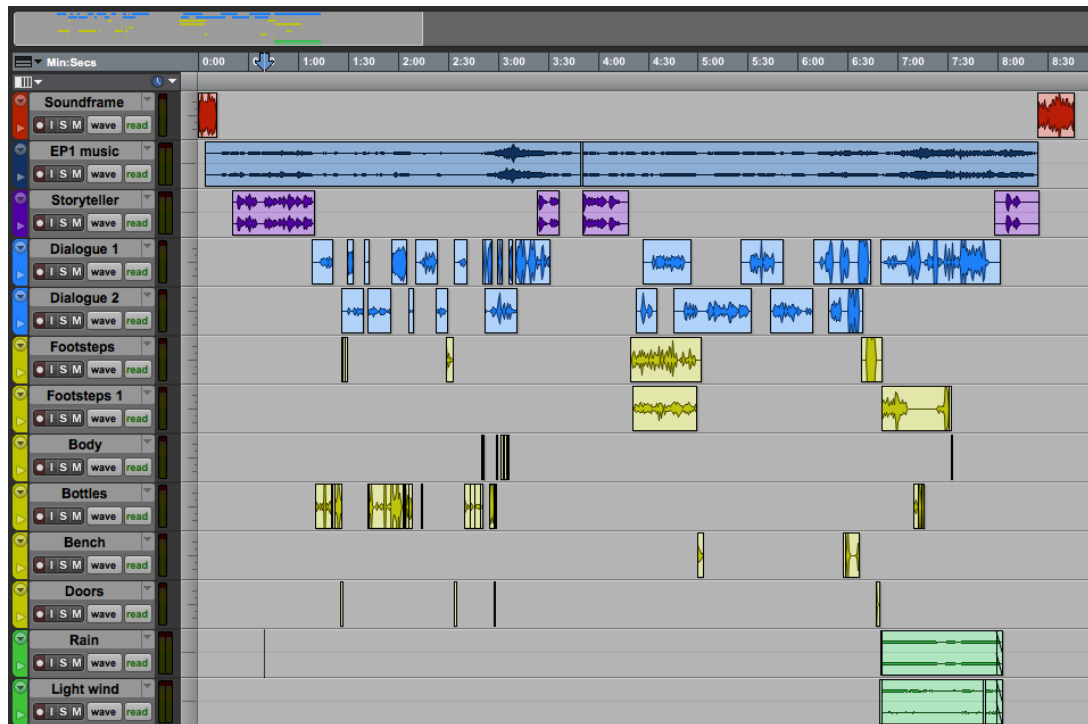
Figure 3: Purgatory episode 1 simplified timeline (Some sound effect tracks removed).

4 CASE STUDY: PURGATORY – AN AUDIO ADVENTURE

Purgatory is a full cast audio play within the fantasy genre that uses sound effects, dialogue, storytelling and music in order to create a rich soundscape and thus aims to capture the listener's attention and stimulate their imagination. It takes advantage of a wide stereo image and thus headphones are recommended for the best listening experience.

There are several ways of creating an audio play and every sound designer has their own preferred workflow and techniques. The creative decisions and technical choices presented in this chapter were undertaken during the production of *Purgatory* - however they are not claimed to be the only, or right, methods in conducting the sound design for an audio play. The purpose is rather to get an insight into how *Purgatory* was created, why certain decisions were made and to examine what could or would have been done differently if this was undertaken again in future.

This case study focuses solely on the sound department and its work throughout the different production stages. The bulk of the production work (directing voice actors, scheduling recording sessions etc.) will not be discussed, nor will there be an analysis of the final product – rather, this paper will focus on the process of creating the audio play.

4.1 Pre-production

Once the script was finalized it had to be analyzed from a sound perspective so that a sound design plan could be made. The initial break down was divided into three different sections; voice actors, sound effects and music. Working closely together with the director and scriptwriter Vincent Weckström, who also provided concept art, the aim was to make sure that the team had a unified vision of the world and characters of *Purgatory*.

Casting voice actors came with some difficulties: the script is written and performed in English, but recorded in Finland – this presented the challenge of finding voice actors who were fluent in English. From a sound perspective, it was also important that the characters' voices worked well together – i.e. Arthur and Sarah needed to sound ap-

proximately the same age. One actress stood out as a great choice for Sarah but upon casting Arthur it was realized that her voice was too "smokey" compared to Arthur's, making her sound considerably older and therefore unsuitable for casting as his wife. The actors for Arthur, Warden and Father Jacobs all had quite different voices from one another, which is necessary for listeners to separate characters by their voice.

The casting sessions and rehearsals with the actors were recorded with a Zoom H1 recorder in order to allow reviewing of their performances and voices afterwards. These recordings were also used for testing particularly difficult scenes - such as Arthur dying - and a demo of the church scene. Recording the initial rehearsals further aided in making a list of sounds required from the actors beside dialogue; such as grunts, coughs, sighs etc.

The second part of the sound plan included listing the sound effects and foley required to bring the story to life. The script was analyzed thoroughly in order to determine what sound effects would be crucial both in bringing forth the action and in establishing different locations. These foley and sound effects were then distinguished between what could be recorded in the studio (footsteps, chains, bottles) and what had to be acquired from sound libraries (rain, birds, wind). The recordings took place in February, which set some seasonal restrictions with regards to recording – e.g. forest sounds in winter are not the same as in summer!

The composer was provided with a script at an early stage along with a list of different moods that were to be conveyed at different stages of the story and some initial ideas of what the music should sound like. Concepts that were discussed a lot were the choir music in the church, the thematic use of instruments such as strings representing Eden and a more percussion-based sound for the Underworld.

4.2 Production recording

4.2.1 Technical rehearsals and choice of microphones

The technical rehearsals were held together with the actors in the sound studio at Arcada University of Applied Sciences (hereafter referred to as Arcada), where the final recordings would also take place. Whilst the actors rehearsed their lines and discussed their characters, different microphone choices and placements were tested in order to determine which ones best served the purpose.

The role of the storyteller in *Purgatory* is divided between two main characters: Arthur and The Warden. This meant it was important to distinguish the actors' roles from their "in-play" character and their storyteller role in order to avoid listener confusion. This was firstly dealt with by using different microphones for the roles: the AKG C414 XLII microphone with its crisp sound that combines body with high-end clarity (White, 2004) was chosen for the character voices. The storyteller roles were recorded using an Electro Voice RE20 microphone – a classic voiceover microphone that is commonly used in radio and podcasting. The decision to use these microphones to differentiate between the roles meant there was no need to undertake a difficult and potentially clumsy edit in post-production, which may have reduced the final quality.
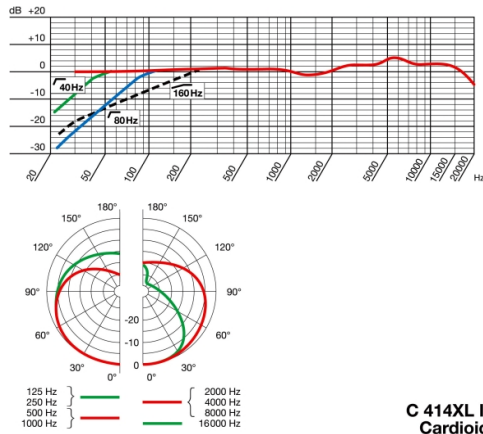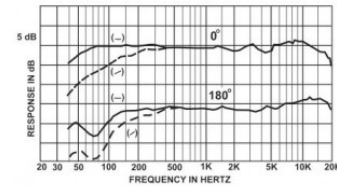
*Figure 4: AKG C414 XLII microphone and its
frequency response and cardioid
polar pattern. Source:
http://www.akg.com/pro/p/c414xlii*
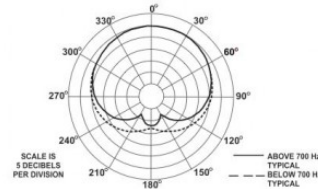
*Figure 5: EV RE20 microphone
and its frequency response and
polar pattern. Source:
http://www.dmmusic.com/ev-re20*

The set-up for recording an audio play usually includes a stereo microphone, the purpose of which is to get a better "feel" for the scene – especially on location-based audio dramas where stereo microphones are used to capture the environment (Greenhalgh, 2012 p.9). However, for *Purgatory* the decision was made to record everything in mono – this meant the character placement and movement could be decided in post-production rather than the microphones giving a static placement.

4.2.2 Dialogue and storyteller recording

Most scenes in *Purgatory* consist of a dialogue between two people, so for the recordings the microphones were arranged opposite each other with a 2-3 meters distance.

This minimized leakage between actors' microphones and also allowed the actors to perform whilst maintaining eye contact, meaning the script could be acted rather than simply read. For the recording of the climax scene where three characters are present, the microphones were instead placed in a semi-circle to maintain the same effect.

The audio play was recorded onto Pro Tools HD using the SSL AWS 948 console in Arcada's sound studio over the course of four days. The actors were provided with headphones and depending on what they wanted to hear it was possible to send their own voices and/or fellow actor's voices into the headphones directly from the mix in Pro Tools. It was at this stage the realization occurred that there would have been great benefit in recording the part of the storyteller first - one of the actors mentioned he would have preferred to hear the storyteller as a cue before he started his performance. Scheduling conflicts unfortunately meant that the storyteller parts were to be recorded later.

While the actors were present it was important to record not only the dialogue, but also other sounds crucial to the soundscape, such as breathing, grunting and coughing. Whereas the possibility existed to have anyone perform the "swallowing" sound effects when Arthur drinks poison at the end of episode one, there is a risk of it being obviously noticeable to the listener. If possible, the real actor is to be used for such effects. The actors were also very talented and experienced and thus knew how to "work" the microphone. One sequence of note is when Arthur is banished from the Underworld and he shouts for Sarah before the doors slam behind him: the actor had the idea to move away from the microphone whilst delivering his line, creating an effect of increasing distance that did not require further editing in post-production.

4.2.3 Sound effects and foley recording

It is hard to draw an exact line between foley sounds and sound effects. The general distinction is however that foley tends to cover "living" sounds, or sounds that require human interaction, such as footsteps and clothes rustling, whereas sound effects are "non-living" sounds such as explosions and fire.

When planning the recording of sound effects and foley, creativity is the key; there is no need, or often even the possibility, to use the same object for the sound that it is supposed to represent, rather it is about figuring out what prop sounds best. "Foley artists must create sounds with various available props on hand that are made to sound like other props that are either not on hand or don't exist to create a sound never before heard." (Yewdall 2013, p.429). For example: when Arthur is released from the chains and shackles in episode two, the noise of the shackles is created using old door hinges found in a garage.

Most of the foley and sound effects were recorded in the sound studio together with the director using the Sennheiser MKH60 shotgun microphone. This included clothes movements, bottles, chairs, chains etc. All the characters footsteps were recorded using different surfaces from stone to moss and sand. The squeaky wooden floor heard in episode one is recorded elsewhere in an old house and the sound of the torches burning is from a traditional wood-burning sauna stove. The water that can be heard dripping in the Underworld is recorded using a bucket in a garage.

4.3 Post-production

4.3.1 Editing the dialogue and storyteller

Editing *Purgatory* started with choosing the best recordings and organizing the dialogue and storyteller tracks in the right order on the timeline. The three episodes were initially edited in different Pro Tools projects in order to keep the timelines as simple and organized as possible. They would later be merged into one project for the final mix. Upon reflection, this was unnecessary and possibly time consuming to begin the projects separately in the first place.

Once the dialogue was roughly in the right place all the voiceover tracks were taken through the Pro Tools native 7-band equalizer in order to cut out frequencies below 80Hz and boost the mid-range, wherever the character's respective voices lay, in order to make them sound clear (Huff, 2014). It's important to remove unnecessary low fre-

quencies from the speech to avoid a "muddy" sound and prevent "overcrowding" some frequency spectrums. Removing the low frequencies from the dialogue tracks left more space for music and low-frequency sound effects. The Warden, Arthur and Sarah also required a de-esser to smooth out some parts with sharp S- sounds.

As previously mentioned it was important to distinguish between The Warden and Arthur in their roles as characters and as storytellers. The original mono recording of the storyteller was transformed into a stereo track panning from left and right to their extremes, in order to create a wide stereo image that would contrast and leave space for the dialogue in the center. Different effects were tested, such as delaying one side of the stereo track to get more width and space (also known as the precedence effect) but after failing to achieve a desired effect only a slight reverb was added to the track in the end.

At this stage some reference sound effects were added in order to get a rough edit that was as correct as possible with respect to timing. This version was then bounced from Pro Tools and sent to the composer in order to begin work on the musical pieces.

4.3.2 Editing sound effects

Unlike a film where sound effects are supported by something that is seen on-screen, in an audio play the sound designer is responsible for deciding which sound effects he/she wants to incorporate. The listener's auditory perception can only follow a limited amount of cues simultaneously before they start grouping similar cues together or ignoring cues that are considered less important (Aro, 2007, p.X-4). Thus, a soundscape in an audio play is often thinner than the soundscape of a film and consists only of sound effects that have meaning.

Once the dialogue sounded clear the work continued with the addition of sound effects such as footsteps, movement and doors. Most of these sounds were recorded in the studio though some were acquired from different sound libraries. In order to make them sound as realistic as possible some of them were further edited using the Pro Tools native plug-ins such as 7-band equalizer and D-verb as well as the Compressor/Limiter and simple volume changes were also utilized.

4.3.3 Spatial placement of characters

The key in bringing the characters to life is to place them in a spatial sense. This was done by panning the tracks either to the left or right, depending on where the characters were to be situated. As an example, in the beginning of episode one Arthur can be heard working with his bottles and equipment slightly to the left. We then hear the door open and Sarah enters the room from the far right and walks closer to the center. Both the dialogue and sound effects would be panned so the illusion that they came from the same source was created. For this effect to work to its full capacity for the listener, headphones are needed.

Even in dialogue situations with two characters standing still one of them would be panned slightly to the left and the other one slightly to the right, instead of the generic center. This aids hugely in creating a sense of space and reality. Episode two consists of a long dialogue between the Warden and Arthur, where in order to maintain the listener's attention, panning was used to make Warden move back and forth in front of Arthur.

4.3.4 Creating the locations

The differing keynote sounds in every location distinguish them from one another. Together with the right reverb on the dialogue and a range of sound effects the attempt was made to create locations that sound realistic and help the listener to visualize the story. Most audio dramas are recorded in acoustically damped studios and the feeling of space is created by artificial reverberation (Aro, 2007 p. X-5). Arcada's sound studio is not fully ideal for that purpose, and thus when creating the different locations some challenges arose.

4.3.4.1 The study
Arthur's study in the beginning of episode one is a simple interior location. The reverb from the Arcada's studio was already quite realistic for this purpose and required very little change; only a slight room tone was added to accompany the sound effects of bottles and jars. A recording of boiling liquid was added initially, but later removed at the request of the director.

The scene was kept very simple and the focus was on placing the characters spatially; the footsteps and the door through which Sarah enters and leaves play an important part as well as the noise of her tumbling over.

4.3.4.2 The church

The reverb of the church was one of the most challenging ones to create. Using the Pro Tools native D-verb plug-in a lot of time was spent getting the right "echo-y" effect on the dialogue, footsteps and other sound effects. The idea was to make the space sound churchlike, without making the reverb too distracting.

The music composer decided to create a piece that, instead of being just non-diegetic background music, is diegetic and can be interpreted as a choir that's singing inside the church, but simultaneously reflects the mood brought forth by the dialogue between Arthur and Father Jacobs. This is what differs this particular piece from all other music heard in the story and thus the decision not to add much more ambience and sound effects was made, but rather let the music take control of the soundscape.

4.3.4.3 The Underworld

The Underworld was imagined as an eerie cave-like, underground labyrinth. The keynotes are water dripping, fire crackling and chains rattling when Arthur tries to get loose. The water drops were panned in turns in no specific order, from the left and right extremes to the center, in order to create a sensation of the dripping occurring all around the space. A reverb was added on all the tracks to create a slight echo from the stone walls.

This is the first moment when The Warden is introduced as a character and not just as the storyteller. He is walking on his bare feet on the ground and we can hear keys rattling whenever he moves; a classic symbol of power but something that also is essential in the story: he uses the keys later to free Arthur from the shackles and to open doors. The music aids in creating an ominous soundscape.

4.3.4.4 Eden

Eden is one of only two outdoor locations (the other being the rainy village where Arthur drinks poison and appears again at the end of the story). The challenge with exterior locations is making the dialogue which is recorded in the studio sound like it's hap-

pening outside. One way to imitate an outdoor dialogue is to cut away a lot of the low frequencies that normally disappear outside and to find a good reverb.

Eden is a paradise-like place where the soundscape consists of different nature sounds: birds, wind and a flowing river. Due to the ground being covered by snow during the time of the recordings in February, the footsteps in the grass were recorded on moss in the studio. The final sound effect is a little bit too dry and hay-like and could have been worked on a bit more.

An important moment is the dream sequence where Sarah appears. A strong reverb was used to create a dream-like, ghostly effect on her humming and during this the nature sounds in Eden disappear.

4.3.5 The finishing touches and final mix

The last things to be added to the mix were some ambient sounds - such as an eerie wind to accompany the Warden's storyteller part - and the finished mix of the music. The music plays a strong role, much more so than was initially planned, and it could be discussed whether less music and more emphasis on ambient sounds would have worked better. Because the music is more or less constant throughout the story there was not much room for other ambient sounds. On the other hand, with the music being quite ambient, it conveys the different moods strongly by itself.

It was not until this stage that the soundframe was recorded and added to the beginning and end of every episode. It was important to advise the listeners to use headphones and to include end credits.

In the beginning of the editing process a master fader track was created in order to keep an eye on the levels. The compressor for the final mix was inserted on the master fader. The levels were constantly checked and worked on during the editing so there was not much tweaking that had to be done at the end.

The headphones mainly used during mixing were the AKG K240 MKII. During the final mix it is important to try and listen to the project on many different platforms in or-

der to make sure it sounds as good as possible. There's no denying most listeners won't have access to professional studio headphones but will use cheap in-ear headphones, and some will even listen straight from the laptop speakers or even from their phone speakers, which is why all these different options were tested before exporting the final mix.

5   SUMMARY OF THE CASE STUDY

The different production stages all play an important part in the sound design of an audio play. The creation starts in pre-production, where analyzing the script and setting up a sound plan is of utmost importance for the work to run smoothly in the next stages. First and foremost it's important that the sound designer and the director share the same unified vision of the audio play and the story they are about to create. If other creative roles are involved, such as a music composer, they should be invited to meetings at an early stage as well.

The script needs to be analyzed well and broken down into a list of sound effects and foley needed, and a plan of how and where to acquire them has to be made. If the intention is to record everything and not use any existing library material, seasonal restrictions have to be kept in mind. *Purgatory* was recorded in the heart of Finnish winter, where recording summer nature sounds would have been rather impossible. At this stage it is beneficial to start listing what sounds, beside dialogue, are needed from the voice actors as well.

Casting voice actors is important for the final outcome of the audio play. Several aspects need to be considered: whether they sound good together and if one voice easily mixes up with another one. In *Purgatory*, it was also a case of finding fluent English speakers in Finland, preferably with an acting or voice acting background. A good performance during the recordings is going to help the editing stage and raise the overall standard of the audio play. For example, if the actor knows how to "work" the microphone it will save time in the edit.

The choice of microphones and their arrangements is important for getting the best quality sound with the best quality performance. Placing the microphones opposite each other to reduce leakage also lets the actors keep eye contact, which then helps their performance.

Once the editing starts the project timeline should be kept as clean and organized as possible. It is important to take all the dialogue tracks through an equalizer to make

them sound as clear as possible. In *Purgatory* it was agreed that a rough first cut, with dialogue and storyteller in the right place together with some reference sound effects, was to be sent off to the composer as soon as possible for him to begin his work.

Even a rich soundscape in an audio play is often thinner than the soundscape in a film. Unlike in a film where the sound effects are usually supported by something that is seen on screen, the sound designer for an audio play has the freedom to decide which sound effects to incorporate.

The different locations are distinguished with different keynote sounds. In addition to this, a realistic reverb has to be added both on dialogue and sound effects. Audio plays are often recorded in acoustically damped studios, which makes it easier to create the locations in post-production. In *Purgatory* one of the most challenging locations was the church, as well as making dialogue and effects that were recorded in Arcada's studio sound like they are outside in exterior locations such as Eden.

One of the biggest factors in enhancing the listener's experience is placing the characters and events in a spatial sense. *Purgatory* is purposefully mixed for headphones and could thus take huge advantage of a wide stereo image. In order to create an illusion of space and the characters moving, panning from left to right is used extensively. Even in a dialogue between two characters one of them would be panned slightly to the left and the other one slightly to the right.

The music sets the final tone of the audio play. In *Purgatory* the music is present throughout the story, mostly non-diegetic but also in diegetic form. It is important to keep in mind that music is a strong effect that evokes feelings in listeners and using it extensively can make it very dominant.

Before finally exporting the audio play it is worth listening to it on as many different platforms and using different headphones in order to make sure it sounds as good as possible. Many listeners will not have access to high quality speakers or headphones, but will rather listen straight from laptops, phones or using cheap in-ear headphones.

6 CONCLUSION

In the early 20th century the radio became an important part of the family home; a source of information, entertainment, company and comfort that people could turn to during hard economical times and wartime unrest. The Golden Age of radio brought forth many entertainment programmes, discussion shows and the first radio dramas. Unfortunately, this experimental time within audio storytelling lasted for merely 30 years whereupon radio had to give way to television and a more visual culture. Radio was no longer the primary source of entertainment in the Western World, although it would still remain important for different social groups and ethnic minorities (Hilmes 2012).

Thanks to digitalization, we are surrounded by screens everywhere we go. However, the digitalization is also responsible for the increasing interest in audio storytelling; availability of different portable listening devices has made people walking around wearing headphones a common sight. The ability to embed soundscapes with one another and for people to create a "soundtrack" for their everyday life is a fascinating subject. Even if it is fair to assume that most are listening to music of some kind, studies have shown that for example podcast listening has grown remarkably within the last few years (Edison research 2016). The digital era has also made it possible for the layman to create audio stories from the comfort of their own home. The technical equipment from microphones to recording and editing softwares are affordable and the audio stories can be uploaded online and easily be disseminated for free on social media.

When radio dramas first aired in the 1920's the experimentation with sound effects and realistic sequences made the public uncomfortable and even allegedly caused mass hysteria, such as in the case of Orson Welles radio drama *The War of The Worlds*. Today's people, who have become familiar with the most imaginative use of both visual and sound effects all over films, television and online are a whole other public indeed. Studies show that when listening to audio stories the listener benefits from the incorporation of sound effects and sound shots. The more lifelike the effects are and the better the characters are placed spatially, the easier it is for the listener to use their imagination. It also improves the listener's level of attention (Rodero 2012).

Based on that information, a successful soundscape in an audio play consists of realistic sound effects in addition to the dialogue and storyteller. But in order for a sound designer to recreate a realistic soundscape, he/she must know what components different environmental soundscapes consist of. The three-way breakdown between keynotes, signals and soundmarks (Schafer 1994) gives a guideline to the distinction between the environmental sounds in our surroundings, and when complimented with dialogue, storyteller and soundframe (Wissmann & Zimmermann 2010) all the necessary components for a successful audio play can be realized.

The soundscapes in audio plays are far thinner than those of the real world or even those in film, due to the listener only being able to focus on a certain amount of cues before getting distracted (Aro 2007). This is why for example to convey a seaside soundscape only the cry of seagulls might be enough; the sound designer has the freedom and responsibility to decide what effects to use. However, it's important to keep in mind that many listeners have an *idea* of what something sounds like without *actually* knowing what it sounds like. It's up to the sound designer to decide what to give to the public (Gibbs 2007).

In order for the soundscape to sound realistic it must be of high quality, which means it has to be recorded well and edited skillfully. It is crucial for the sound designer to start their work early in pre-production by analyzing the script and making lists of sound effects needed and planning how to acquire them. The casting of voice actors and the preparation for recording sessions will affect the final outcome of the audio play greatly. A lot of consideration should be put into the recording stage to make post-production as seamless as possible.

The finished audio play will, however, only get so far by itself. For the story to come to life an active listener is needed and should never be underestimated. The audio play has to rely on the listener's understanding of the different sound events and symbols as well as them being capable of using their imagination to put the final touches on the creation of the world. That is where the creation of an audio play becomes a team effort between the creator and the listener; one cannot function fully without the other. And, if for the sound designer the way to help the listener to visualize a story and stimulate their

imagination is by the use of sound effects and spatial placement of characters, then the emphasis (when creating audio plays) should be on achieving high quality soundscapes consisting of a good mix of sound effects, dialogue and storyteller. By paying attention to this, audio storytelling will potentially reach a great future.

FIGURES

GLOSSARY

Bounce   To export audio from Pro Tools

Diegetic/ Non-diegetic   The origin of the sound is within the story/The origin of the sound is outside the story i.e. music represented as coming from instruments in the story space/mood music

De-esser   A Pro Tools native plug-in used to eliminate the excessive prominence of sibilant consonants such as "s", "z" and "sh"

Equalization/EQ   Boosting or reducing (attenuating) the levels of different frequencies in an audio signal

Foley   The reproduction of sounds that are added to the media in post-production to enhance the audio quality

Precedence effect   An acoustic phenomena in which a listener correctly identifies the direction of a sound source that is heard by both ears, but which arrives at each at slightly different times

Reverb   The acoustic environment that surrounds a sound. A reverb is created when a sound is reflected causing a large number of reflections to build up and then decay as the sound is absorbed by the surfaces of objects in the space

Sound effect   A sound recorded and presented to make a specific story-telling or creative point without the use of dialogue or music

Sound shot   A term used to describe the spatial placement of characters in an audio play

REFERENCES

Aro, Eero. 2007, *Surround sound in radio drama*. Available:
http://decoy.iki.fi/dsound/ambisonic/motherlode/source/Eero%20Aro%20Surround%20sound%20in%20radio%20drama.pdf Downloaded: 20.11.2016

Crook, Tim. 1999, *British Radio Drama, A Cultural Case History*. Available:
http://www.irdp.co.uk/britrad.htm Downloaded: 16.11.2016

Edison research. 2016, *The Infinite Dial*. Available:
http://www.edisonresearch.com/the-infinite-dial-2016/ Downloaded: 10.10.2016

Gibbs, Tony 2007, *The Fundamentals of Sonic Art & Sound Design*. Available:
https://www.dawsonera.com/readonline/9782940439966 Downloaded 20.1.2016

Greenhalgh, Frederick. 2012, *Field recording for Audio Drama: A Filmmaker's Guide*.
Available: http://www.finalrune.com/blog/wp-content/uploads/2016/03/FinalRune-eBook-Field-Recording.pdf Downloaded: 20.11.2016

Hand, Richard J.; Traynor Mary. 2011, *The Radio Drama Handbook: Audio Drama in Context and Practice*. New York: Continuum International Publishing Group.

Hilmes, Michele. 2002, Rethinking Radio. In: *Radio Reader: Essays in the cultural history of radio*, pp 1-19. New York: Routledge.

Huff, Chris. 2014, *Eight tips for improving clarity in speech*. Available:
http://www.behindthemixer.com/eight-tips-for-improving-clarity-in-speech/ Downloaded: 20.11.2016

Mchugh, Siobhan. 2015, *Audio Storytelling: Unlocking the power of audio to inform, empower and connect.* Available:
https://www.researchgate.net/publication/276317417_Audio_Storytelling_Unlocking_the_Power_of_Audio_to_Inform_Empower_and_Connect Downloaded 3.10.2016

Pownall, David. 2010, *Sound Theatre: Thoughts on the Radio Play*. London: Oberon Books.

Rodero, Emma. 2012, See it on a Radio Story: Sound Effects and Shots to Evoked Imagery and Attention on Audio Fiction. In: *Communication Research 39(4):458-479*.
Available:
https://www.researchgate.net/publication/254084558_See_It_on_a_Radio_Story_Sound_Effects_and_Shots_to_Evoked_Imagery_and_Attention_on_Audio_Fiction Downloaded 1.9.2016

Schafer, R. Murray. 1977/1994, *The Soundscape: The Sonic Environment and the Tuning of the World*. Rochester, Vermont: Destiny Books.

Sher, Aubrey J. 2013, *Those Great Old-Time Radio Years*. United States of America: Xlibris.

Truax, Barry. 2012, Sound, Listening and Place: The aesthetic dilemma. In: *Organised Sound*, 17, pp 193-201. Available: http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8749749&fulltextType=RA&fileId=S1355771811000380 Downloaded 21.1.2016

White, Paul. 2004, *AKG C414B XLS & XLII.* Available: http://www.soundonsound.com/reviews/akg-c414b-xls-xlii Downloaded: 21.11.2016

Wissmann Torsten; Zimmermann Stefan. 2010, From hear to there – Sound and the cognitive construction of world in popular audio plays. In: *Erdkunde 64(4):371-383*. Available: https://www.researchgate.net/publication/236735189_FROM_HEAR_TO_THERE_Sound_and_the_cognitive_construction_of_world_in_popular_audioplays Downloaded 1.9.2016.

Yewdall, David Lewis. 2013, *Practical Art of Motion Picture Sound*. Focal Press: Burlington.

APPENDIX

ABSTRACT IN SWEDISH

Ljudberättelser i dagens visuella värld – nödvändiga komponenter för en lyckad ljudvärld i ett hörspel

Bakgrund och syfte

Dagens samhälle är fylld av skärmar: TV apparater, datorer, tabletter, mobiltelefoner, digitala anslagstavlor, reklamskärmar osv. Underhållning, information och även kommunikation fokuserar sig på det visuella, vilket har varit fallet sedan televisionen uppfanns och som mångfaldigats sen digitaliseringen. I en sådan värld är det lätt att glömma ljudets betydelse. Men sanningen är att ljud följer oss överallt. Till skillnad från det visuella, behöver ljudet inte vår fulla uppmärksamhet och kan därför lyssnas till då vi gör annat, så som pendlar, tränar eller tar hand om sysslor i hemmet.

Ljudberättelser i form av radio drama har existerat för nästan ett århundrade, då de första hörspelen sändes ut på 1920-talet. Radions tid som huvudsakliga källan för underhållning var dock kort – folkets uppmärksamhet vände sig mot televisionen som blev mer populär i hemmen på 1950-talet. Tack vare digitaliseringen och de olika plattformerna på webben har radion och ljudberättelser sakta blivit mer populära. Intresset i att lyssna på ljudberättelser har ökat på grund av bärbara lyssningsapparater och skapandet av hörspel och podcasts blir mer och mer populärt.

Då lyssnaren lyssnar på hörspel visualiseras berättelsen i hens fantasi. Desto bättre en historia kan fånga lyssnarens uppmärksamhet och stimulera hens fantasi, desto lättare är det för lyssnaren att skapa mentala bilder. Studier bevisar att hörspel som använder sig av ljudeffekter och som placerar karaktärer i ett rum ökar fantasiförmågan samt förbättrar lyssnarens uppmärksamhet (Rodero 2012). Således kan det påstås att en lyckad ljudvärld i ett hörspel är rikt, realistiskt och innehåller olika komponenter som existerar för att förbättra lyssnarens fantasi.

Syftet med detta examensarbete är att presentera idén att det ännu finns en marknad för ljudberättelser samt att ljudberättelser kan bra ha en god framtid framför sig. Arbetet föreslår att med fokus på skapandet av ljudvärldar av hög kvalitet som byggs upp av några specifika komponenter, kunde hörspel få en större publik. Med hög kvalitet anses bra ljudupptagning, talangfullt editerade och generellt kreativt ljudplanerade av professionella ljudmän.

Målet är att demonstrera hur ett hörspel skapas samt att svara följande frågor:
- Finns det behov av ljudberättelser i dagens visuella värld?
- Vilka är de nödvändiga komponenterna för att skapa en lyckad ljudvärld för ett hörspel?

Arbetet är samtidigt en fallstudie på hörspelet *Purgatory – An audio adventure* som producerades på Yrkeshögskolan Arcada som en del av detta examsarbete. Fallstudien demonstrerar ljudplanerarens arbetsuppgifter i de olika produktionsskeden; syftet är inte att analysera slutfälliga produkten utan själva processen av att skapa hörspelet från ett ljud- perspektiv. Det rekommenderas att läsaren bekantar sig med hörspelet som finns på nätet http://purgatory.sonicoak.com/

Huvudpunkterna som framkom via ljudarbetet för Purgatory

De olika produktionsskeden (pre-produktion, inspelning och post-produktion) spelar alla en viktig roll för ljudplanerandet av ett hörspel. Skapandet börjar med förhandsarbete så som med att analysera manuset och med att göra en ljudplan; dessa är extremt viktiga för att arbetet skall flyta smidigt i de följande stadierna. Det är ytterst viktigt att ljudplaneraren och regissören delar samma vision av hörspelet och världen de kommer att skapa. Om teamet består av andra kreativa roller är det viktigt att de är närvarande på möten i ett så tidigt skede som möjligt.

Manuset bör analyseras och brytas ner i en lista av ljudeffekter och foley som behövs och dessutom måste det göras en plan för hur man kommer att få dessa effekter. Om tanken är att själv spela in allting utan att använda något material från ljudbanker, måste olika årstiders begränsningar tas i beaktande. *Purgatorys* inspelningar skedde i februari,

då inspelning av somriga skogsambienser är mer eller mindre omöjligt. I detta skede lönar det sig också att lista upp andra ljud vid sidan om dialog som krävs från skådespelare: grymtar, hosta, suckar, gäsp osv.

Valet av röstskådespelare är oerhört viktigt med tanke på slutresultatet. Flera aspekter måste uppmärksammas: låter skådespelarna bra tillsammans och finns det möjligtvis en chans att vissa röster lätt kunde blandas ihop? *Purgatorys* huvudsakliga utmaning var att hitta skådespelare med flytande engelska i Finland, helst med tidigare erfarenhet av röstskådespeleri. Ett bra uppträdande under inspelningarna kommer att höja hörspelets standard samt att vara av stort hjälp i editskedet. Till exempel, en skådespelare som vet hur man kan använda sig av en mikrofon kommer att spara tid i editen.

Valet av mikrofoner och deras placering är viktigt för att få den bästa möjliga ljudkvalitén tillsammans med det bästa uppträdandet. Genom att placera mikrofonerna mitt emot varandra istället för bredvid varandra, kan ljudläckage förminskas samt tillåter det skådespelarna att ha ögonkontakt, som i sig förbättrar deras performans.

När editeringen börjar är det viktigt att göra dialogen så klar som möjligt. Alla dialogspår torde tas in i en EQ för att skära av onödiga låga frekvenser och höja mitten frekvenserna där skådespelarnas respektive röster befinner sig. I *Purgatory* var det överenskommet att ett första råklipp tillsammans med några referensljudeffekter skulle skickas till kompositören så fort som möjligt så han kunde påbörja sitt arbete.

Även en rik ljudvärld i ett hörspel är ofta tunnare än en ljudvärld i en film. Till skillnad från film där ljudeffekterna oftast stöds av någonting som finns på skärmen, har ljudplaneraren i ett hörspel friheten att bestämma vilka effekter hen vill använda sig av. Det är viktigt att komma ihåg att lyssnarens hörselförmåga kan endast uppfatta en viss mängd signaler innan de börjar grupperas eller ljud som anses mindre viktiga blir ignorerade (Aro 2007).

De olika platserna i berättelsen skiljs av olika grundtoner (keynote). Dessutom måste ett realistiskt reverb sättas både på dialogen och ljudeffekterna. Hörspel spelas oftast in i akustiskt dämpade studion som gör det lättare att skapa de olika platserna i editen. I *Purgatory* var en av de mest utmanande ställen att skapa kyrkan, samt att få dialogen

och effekterna som bandats inomhus i Arcadas studio låta som om de var exteriörer som till exempel Eden.

En av de viktigaste faktorerna för att förbättra lyssnarens använding av fantasi är att placera karaktärerna i ett utrymme. *Purgatory* är därför mixat för hörlurslyssning, för att kunna utnyttja en vid stereobild. För att skapa illusionen av att karaktärerna rör sig i ett utrymme användes panorering från vänster till höger. Även i en dialogsituation mellan två karaktärer är den ena panorerad lätt till vänster och den andra lätt till höger.

Musiken skapar den slutliga stämningen. I *Purgatory* är musiken närvarande genom hela berättelsen, mest i icke-diegetisk (non-diegetic) men också diegetisk (diegetic) form. Det är viktigt att komma ihåg att musiken är en stark effekt som väcker känslor hos lyssnaren och kan därför lätt bli dominant.

Före exportering är det värt att lyssna på hörspelet från så många olika källor som möjligt och med olika hörlurar. Många lyssnare kommer inte att ha tillgång till högtalare och hörlurar av hög kvalitet, utan kommer att lyssna rakt från bärbara datorer, telefoner och med billiga hörlurar.

Slutsats

Tack vare digitaliseringen är vi omringade av skärmar var än vi går. Dock är det också digitaliseringen som är ansvarig over det ökade intresset i ljudberättelser; tillgänglighe-ten av olika bärbara lyssningsapparater sen 1970-talet har gjort att folk som går omkring med hörlurar är en vardaglig syn. Möjligheten att omgiva sig av, och blanda ihop, olika ljudvärldar är ett fascinerande ämne. Även om det kan antas att de flesta lyssnar på nå-gon typ av musik, visar studierna att till exempel lyssnandet på podcasts har ökat an-märkningsvärt i Amerika under de senaste åren (Edison research 2016). Det digitala har också medfört att det är möjligt för vem som helst att skapa ljudberättelser hemifrån. Den tekniska utrustningen från mikrofoner till editeringsprogram är inte längre otroligt dyr och ljudberättelser kan laddas upp på nätet och marknadsföras gratis på sociala me-dier.

Då radio dramat först uppkom på 1920-talet experimenterades det redan med ljudeffekter och realistiska sekvenser gjorde lyssnarna obekväma och påstås även ha förorsakat masshysteri, speciellt i fallet med Orson Welles radio drama *The War of The Worlds*. Dagens lyssnare, som vant sig med det mest fantasifulla användningen av visuella- och ljudeffekter i filmer, tv och på nätet är en helt annan publik. Studierna visar att lyssnaren har nytta av ljudeffekter i hörspel: desto mer realistiska ljudeffekter och desto bättre karaktärerna är placerade i utrymmet, desto lättare är det för lyssnaren att använda fantasin och desto bättre fångas hens uppmärksamhet. (Rodero 2012).

På basis av den informationen, består en lyckad ljudvärld i ett hörspel av realistiska ljudeffekter samt dialog och berättare. Men för att en ljudplanerare skall kunna återskapa en realistisk ljudvärld, måste hen veta vilka komponenter olika ljudvärldar vi är omringade av består av. Indelningen mellan grundton (keynote), signal (signal) och ljudmärke (soundmark) (Schafer 1994) ger en riktlinje till hur man kan skilja åt ljud i vår omgivning. Då det kompletteras med dialog (dialogue), berättare (storyteller) och ljudram (soundframe) (Wissmann & Zimmermann 2010) är alla nödvändiga komponenterna för ett lyckat hörspel listade.*

Ljudvärlden i ett hörspel är tunnare än i den riktiga världen och även tunnare än den I film på grund av att lyssnaren endast kan fokusera sig på ett visst antal signaler innan hen blir distraherad (Aro 2007). Därför kan till exempel en ljudvärld vid ett hav förmedlas endast med användning av måsarnas skri: ljudplaneraren har friheten och ansvaret över att bestämma vilka effekter hen vill använda. Dock är det viktigt att komma ihåg att många lyssnare har en *idé* om hur någonting låter utan att *egentligen* veta hur det låter. Det är upp till ljudplaneraren att bestämma vad hen vill ge publiken (Gibbs 2007).

För att ljudvärlden skall låta realistisk måste den vara av hög kvalitet, vilket innebär att den måste vara bra inspelad och väl editerad. Det är avgörande för ljudplaneraren att börja sitt arbete tidigt med att analysera manuset och göra en lista av ljudeffekter som behövs samt hur de kommer att skaffas. Valet av skådespelare och förberedandet inför inspelningarna kommer att påverka slutliga hörspelet. Mycket hänsyn torde tas till inspelningsskedet så att editeringen blir så smidig som möjligt.

Det slutliga hörspelet kommer dock inte så långt för sig själva. För att berättelsen skall vakna till liv behövs en aktiv lyssnare som aldrig torde underskattas. Hörspelet måste lita sig på lyssnarens förståelse av olika ljudhändelser och ljudsymboler samt att hen är kapabel att använda sin fantasi för att slutföra skapandet av berättelsens värld. Det är därför ett hörspel är en "grupp- prestation" mellan skaparen och lyssnaren: den ena kan inte funktionera fullt utan den andra. Och, om ljudplanerarens sätt att hjälpa lyssnaren att visualisera berättelsen är med hjälp av ljudeffekter och placering av karaktärer i ett utrymme, borde skapandet av ljudvärldar av hög kvalitet betonas. Om dessa faktorer uppmärksammas, kommer ljudberättelser ha potential för en bra framtid.

*Obs! Den svenska översättningen av de engelska termen är gjord av författaren av detta examensarbete och kan skilja sig från andra översättningar.

Referenser:

Aro, Eero. 2007, *Surround sound in radio drama*. Tillgänglig: http://decoy.iki.fi/dsound/ambisonic/motherlode/source/Eero%20Aro%20Surround%20sound%20in%20radio%20drama.pdf Hämtad: 20.11.2016

Edison research. 2016, *The Infinite Dial*. Tillgänglig: http://www.edisonresearch.com/the-infinite-dial-2016/ Hämtad: 10.10.2016

Gibbs, Tony 2007, *The Fundamentals of Sonic Art & Sound Design*. Tillgänglig: https://www.dawsonera.com/readonline/9782940439966 Hämtad: 20.1.2016

Rodero, Emma. 2012, See it on a Radio Story: Sound Effects and Shots to Evoked Imagery and Attention on Audio Fiction. In: *Communication Research 39(4):458-479*. Tillgänglig: https://www.researchgate.net/publication/254084558_See_It_on_a_Radio_Story_Sound_Effects_and_Shots_to_Evoked_Imagery_and_Attention_on_Audio_Fiction Hämtad: 1.9.2016

Schafer, R. Murray. 1977/1994, *The Soundscape: The Sonic Environment and the Tuning of the World*. Rochester, Vermont: Destiny Books.

Wissmann Torsten; Zimmermann Stefan. 2010, From hear to there – Sound and the cognitive construction of world in popular audio plays. In: *Erdkunde 64(4):371-383*. Tillgänglig: https://www.researchgate.net/publication/236735189_FROM_HEAR_TO_THERE_Sound_and_the_cognitive_construction_of_world_in_popular_audioplays Hämtad: 1.9.2016.