

# **THE OTHER SIDE OF MONITOR ENGINEERING:**

Exploring the Human Component of  
Monitor Engineering through  
Occupational Stress

Kimberly Grice

Bachelor's/Master's thesis  
April 2018  
Degree Programme in  
Media Music Production



## ABSTRACT

Tampereen ammattikorkeakoulu  
Tampere University of Applied Sciences  
Degree Programme in Media Music Production

Kimberly Grice:

THE OTHER SIDE OF MONITOR ENGINEERING:

Exploring the human component of Monitor Engineering through Occupational Stress

Bachelor's thesis 59 pages, appendices 54 pages

April 2018

---

Monitor engineering is a profession that is generally regarded as highly technical in nature. Yet at the core of this vocation is a line of collaboration between the artist and the engineer that is profoundly based on intimate human interaction that is rarely acknowledged.

The goal of this thesis was to examine the human side of “Monitor Engineering” by delving into the occupational stress that a sound engineer, particularly a monitor engineer might encounter and must ultimately overcome if they are to be successful in the field. This thesis does not focus on the subject from the perspective of a particular country or said culture though certain aspects of research study material was drawn from specific countries. Instead this thesis looks at the entertainment field, as a unique sub-culture within any given culture. As it is often the case that a monitor engineer will work in concert with specific individuals, e.g., performers, lighting technicians, pyro technicians, or other sound technicians within the world of live event from various cultures. A brief theoretical view of stagehands as related to live performance is given, followed by a brief description of the different audio professions in the live event industry. As it is important to understand the differences in the vocations that exist within the technician’s world of “live performance”, after which numerous stress factors were investigated using research studies, tomes, and expert interviews.

This thesis explored the following questions by way of looking at the work-related stress that exists within the live event field:

1. Is monitor engineering more people oriented than technical?
2. Should conflict resolution, psychoacoustics, and psychological training be a part of the curriculum for those going into field of monitor engineer?
3. Do monitor engineers contribute to the occupational stress experienced by performers and themselves when they are unable to perceive and contend with the mental and emotional states around them?
4. Can having conflict resolution, psychoacoustics and psychological training help monitor engineers perform their jobs and deal with occupational stress on a personal level?

This thesis is not a psychological analysis. Instead this thesis will endeavor to illuminate the elements of stress that are experienced in the entertainment industry by a monitor engineer for future students who are interested in the vocation.

---

Key words: monitor engineer, occupational stress, live event industry

## CONTENTS

1	INTRODUCTION .....	7
2	THE INSIDERS: INTRODUCTION OF THE INTERVIEWEES .....	8
3	STAGEHANDS .....	10
3.1	Throughout History.....	10
3.1.1	Stagehands: From the Beginning of Time .....	10
3.1.2	Stagehands in today’s music industry .....	12
3.2	THE SONS & DAUGHTERS OF THUNDER: Sound Technicians .....	16
3.2.1	Sound Crew Chief.....	16
3.2.2	Stage Technician .....	16
3.2.3	Systems Engineer .....	17
3.2.4	Front of House Engineer .....	17
3.2.5	Monitor Engineer .....	18
4	OCCUPATIONAL STRESS FACED BY MONITOR ENGINEERS .....	21
4.1	Definition of Occupational Stress .....	21
4.1.1	The Human Cocktail .....	22
4.1.2	Performers .....	22
4.1.3	Performing Arts Support Workers.....	22
4.1.4	Peers .....	23
4.1.5	Fans .....	23
4.2	Viewing Distinct Forms of Stress .....	24
4.2.1	Working with Performance Careerists:Feast or Famine .....	24
4.2.2	Threats to Job Security .....	25
4.2.3	Butterflies in the Stomach .....	28
4.2.4	Difficult Personalities .....	29
4.2.5	Competition .....	30
4.3	The Office for Today.....	32
4.3.1	Club Circuit .....	32
4.3.2	Tours and Night-Liners .....	33
4.3.3	Outdoor Festivals .....	36
4.3.4	Television Sets .....	38
4.4	A Taskmaster Called Time.....	39
4.4.1	Travel .....	39
4.4.2	Swing Shifts: Pandora's Box .....	39
4.5	The Sound of Music.....	42
4.5.1	Music Induced Physical Stress .....	42
4.5.2	Music Induced Emotional Stress .....	45

5	PYSCHOLOGY & CONFLICT RESOLUTION .....	48
5.1	The Submarine Principle .....	48
5.1.1	Developing a People Skill Set .....	49
5.1.2	Psychology .....	49
5.1.3	Psychoacoustics .....	49
5.1.4	Conflict Resolution .....	49
5.2	Current Curriculum .....	50
5.2.1	Contingent Answers from Interviewees .....	50
5.2.2	Martin Arnie Annables .....	50
5.2.3	Viljami "Viltso" Haapala .....	51
5.2.4	Mika Laasonen .....	51
5.2.5	Olavi Köykkä .....	52
5.2.6	Jarkko Aaltonen .....	52
6	DISCUSSION .....	53
	REFERENCES .....	55
	APPENDICES .....	60
	Appendix 1. Interview with Olavi Köykkä .....	60
	Appendix 2. Interview with Martin Arnie Annables .....	65
	Appendix 3. Interview with Jarkko Aaltonen .....	71
	Appendix 4. Interview with Mika Laasonen .....	85
	Appendix 5. Interview with Viljami "Viltso" Haapala .....	103

## ABBREVIATIONS AND TERMS

Archaeoacoustics	is the use of acoustical analysis as a methodological approach within archaeology.
Circadian rhythms	are biological processes that repeat innately on a twenty-four-hour cycle.
Classical Antiquity	is defined as the ancient Greek and Rome civilizations; also known as the Greco-Roman period.
Early Modern Period	pertains to the end of the middle ages and the beginning of the industrial age.
Ethnology	a branch of science that deals with the division of human beings into races and their origin, distribution, relations, and characteristics.
Ethnomusicology	is the analysis of music in its cultural context.
I.A.T.S.E	International Alliance of Theatrical Stage Employees
I.F.P.I	International Federation of Phonographic Industry
I.L.O	International Labour Organization
Middle Ages	also known as the “medieval age” spans from the 5 <sup>th</sup> to the 15 <sup>th</sup> century.
Monitor Wedges	are monitor speakers that are located on stage and are pointed inward towards the performer, to allow them to hear themselves.

Monitor World	is an area on or normally near stage left where the monitor system, the monitor mixing desk, and the signal inputs are located.
NIOSH	National Institute for Occupational Safety and Health
Parasympathetic Nervous System	controls subconscious functions of internal organs such as the heart, stomach, some muscle within the body and intestines.
Patching	is the routing of a signal to and from an external device; example a splitter.
Patch Bay	is a unit that amalgamates signal routing between audio devices
Prehistory	pertains to the time span before recorded history.
R.I.A.A	Recording Industry Association of America
Stage Left	is the left side of the stage from the point of a performer who is on stage facing an audience.
S.M.A	Stage Management Association

## INTRODUCTION

Although my love of music spans a lifetime, my interest in “monitor engineering” has a much shorter history. The history began in 2015 at a meeting to finalize what positions would be maintained by which live event students, during concert showcase of artists at the International Week at Tampere University of Applied Sciences (TAMK), Mediapolis. By happenstance I, along with two other students were designated to handle the monitor engineer position. By the end of the International Week concert sets I knew that I had found my place in the industry. From that point on I have been on a quest to learn as much as possible about what it takes to become a world-class monitor engineer. I have sought out seasoned engineers in which to gain a glimmer of understanding concerning this career. What struck me about my conversations with these engineers was how often the subject of people and not technology came up. It was then that I began to question the importance of being able to understand and work with performers and people employed in the industry in addition to the technical aspects of the job. I began to question the importance of having substantial courses in psychology in the curriculum, alongside technical courses to aid in the development of people skills and personal understanding. I decided to follow that line of thought by researching what are the various elements of occupational stress that are experienced by monitor engineers, their cliental, and others working in live event industry; would these elements that were unearthed, make working in the live event industry difficult or in some cases hazardous without proper precautions and safety measures in place both mentally and physically for a monitor engineer.

Hence this thesis explores the possibility that monitor engineering may be in fact a more people based occupation than the profession is given credit for, analyzes numerous elements of occupational stress found to exist in the world of monitor engineering, and explores the idea of introducing extensive studies in psychology, psychoacoustics, and conflict resolution in order to create a foundation from which the occupational stress of working as a monitor engineer can be effectively managed.

## **1 THE INSIDERS: INTRODUCTION OF THE INTERVIEWEES**

### **1.1 The Insiders: Introduction of the Interviewees**

While research studies and tomes are valid forms of information that can have their origins in the an interview process, they are stagnate and allow for limited discoveries in the subject matter when seeking answers for the thesis questions concerning this particular dissertation. In contrast, theme interviews bring the subject to life, allowing for new avenues of discovery and interest. Hence, I felt it was necessary to conduct individual theme interviews with experts and professionals working in the industry. The professionals interviewed for this thesis are presented as follows.

#### **1.1.1 Olavi Köykkä**

Olavi Köykkä is a monitor engineer and P.A systems designer with over ten years' experience in the sound industry. His experience includes designing large scale P.A systems for tours held in indoor arenas such as Hakametsän jäähalli, located in Tampere, Finland; outdoor festivals such as Pori Jazz and monitor engineer on T.V sets. Recently, as of 2016 he has served as the head of sound at one of Finland most prestigious live event companies, Akun Tehdas. (Köykkä 2017.)

#### **1.1.2 Martin Arnie Annables**

Martin Annables is a twenty years plus veteran in the music industry. He has held the positions of monitor engineer, front of house engineer, systems/ monitor/ drum technician and stage manager. His list of clients includes Motörhead, Prodigy, Avatar, and Phil Campbell and The Bastard Sons to name a few. (Annables 2017.)

#### **1.1.3 Jarkko Aaltonen**

Jarkko Aaltonen is the bassist for one of the most notable bands in the Folk Metal genre, Korpiklaani; his years of experience as a professional musician has allowed him to tour extensively throughout the world, as well as develop insight into both the performance and business side of the entertainment industry. (Aaltonen 2017.)

#### 1.1.4 **Mika Laasonen**

Mika Laasonen is an old-timer of 38 years' experience in the industry, who is a live sound engineer with profession background in electronics. He has work as both front of house engineer and monitor engineer for major European festivals and bands alike. He is currently the sound engineer at Olympia-kortteli, as well as, the sound engineer for the band Peer Günt. (Laasonen 2017.)

#### 1.1.5 **Viljami "Viltsu" Haapala**

Viltsu is an experienced live sound engineer of 20 years, who also holds a degree in studio recording. He spends most of the year touring the world, where he has worked both F.O.H and monitor engineer positions, and that of production and tour manager. Currently, he is the monitor engineer and tour manager for the groups H.I.M and Children of Bodom. (Haapala 2017.)

### **3. STAGEHANDS**

#### **3.1 Throughout History**

In order to begin to understand and enter the world of the monitor engineer it is prudent to consider the presence and importance of stagehands in general throughout history. In this section of the dissertation thought will be allocated to looking at the theoretical probability that stagehands have existed since antiquity and their importance in modern day society.

##### **3.1.1 Stagehands: From the beginning of time**

It could very well be that “stagehands” in some form or fashion have existed since the beginning of time. In order to begin to formulate some semblance of perspective concerning the opening statement, the terms “stagehand and performance” must first be defined. Next, it must be ascertained how far back the concept of performance actually occurs in human history.

According to the (I.A.T.S.E 2017), a stagehand is indicated as “a person who works backstage or behind the scenes in theatres, film, television, or an onsite performance.

When examining human history, according to Professor and Researcher Iegor Reznikoff (2014, 105), ethnology and ethnomusicology fundamentals teaches us that there are no ancient civilisations without some notion of an invisible world and without rituals related to it. The word ritual as stated by the (Cambridge Dictionary, 2017), is defined as “a set of fixed actions and sometimes words performed regularly, especially as part of a ceremony e.g. performance”. The (Cambridge Dictionary, 2017), in turn defines the word “performance” as the action of amusing other people by dancing, singing, acting, or playing music.

Using the fundamental teachings of “ethnology and ethnomusicology”, combined with the definition of the words ritual and performance, it can be theorized that the artistic expression of live performance has been part of human experience in some form or fashion throughout the world since the beginning of time.

With that being said, studies in the field of Archaeoacoustics, such as and “Acoustic Measurements at the Rock Painting of Värkallio” (Rainio, Lahelma, Äikäs, Lassfolk, & Okkonen, 2013) have opened a dialogue within the scientific community to explore the

possibility of rituals e.g. “performances” in the form of spiritual reverence involving sound, dating as far back as 3000 B.C. in relationship to prehistoric sites.

If the possibility of rituals being held, in this case to please the gods and spirits of the invisible realm rather than human beings at these sites are proven to be accurate; it would be theoretically possible that there were individuals that amounted to stagehands, who assisted in the preparation of the performance.



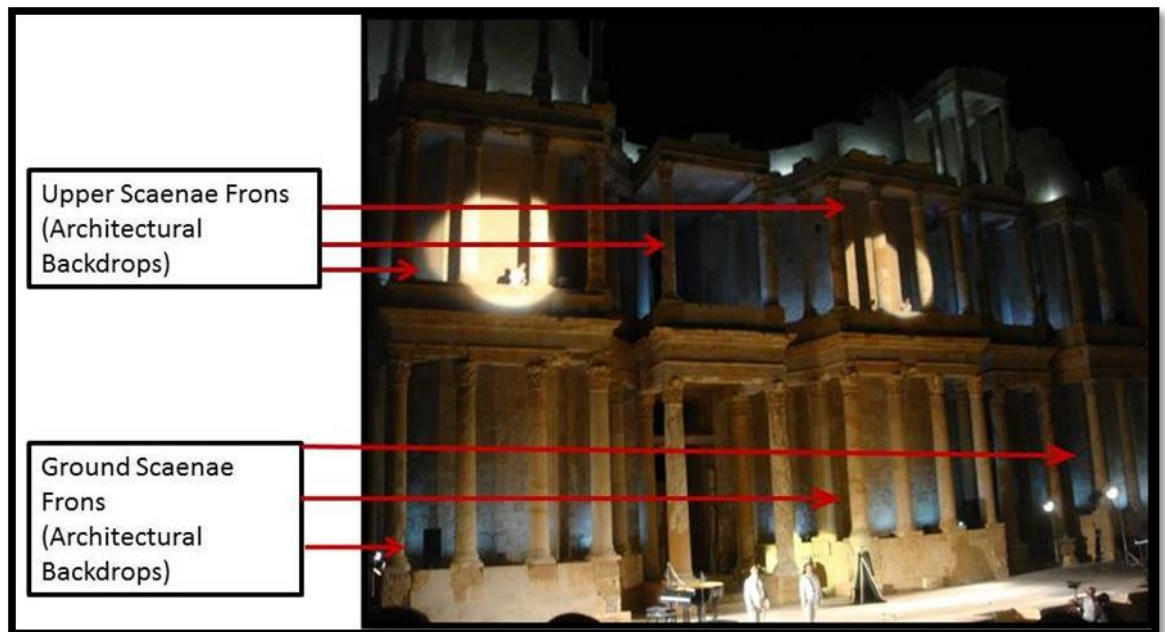
PICTURE 1. Värrikallio, Suomussalmi (Photo: Ismo Luukkonen 2015)

While the exact nature of what took place ritualistically at these sites throughout prehistoric era may be forever lost in time, science and history have however established the existence of live performances during Classical Antiquity. The Roman civilization of the ancient past is a prime example of a culture where the art of live performance flourished; as stated by Martin Lisa, Jen Holger Rindel, & Anders Christian Gade (2005, 2179) Roman open-air theatres were used for live event performances, ranging from prevalent plays of that day and age to musical events with an audience numbering upwards of 7000 individuals as in the Aspendos theatre. Studies, along with archaic artifacts in the form of the actual theaters and mosaics have

shown that these ancient performances displayed many of the facets that are seen in modern day performances e.g. backdrops, venue acoustics, performer acoustics, lighting and costumes.

Thus again in theory it is quite possible that there were individuals to assist in the creation of said performance: Stagehands.

Similar theoretical assessments can be made for later time periods such the Middle Ages and the Early Modern Period, simply by examining the artifacts and in some cases, surviving book references directly surrounding the performance culture during those time frames. All of which lead support to the theory of stagehands being present throughout human history.



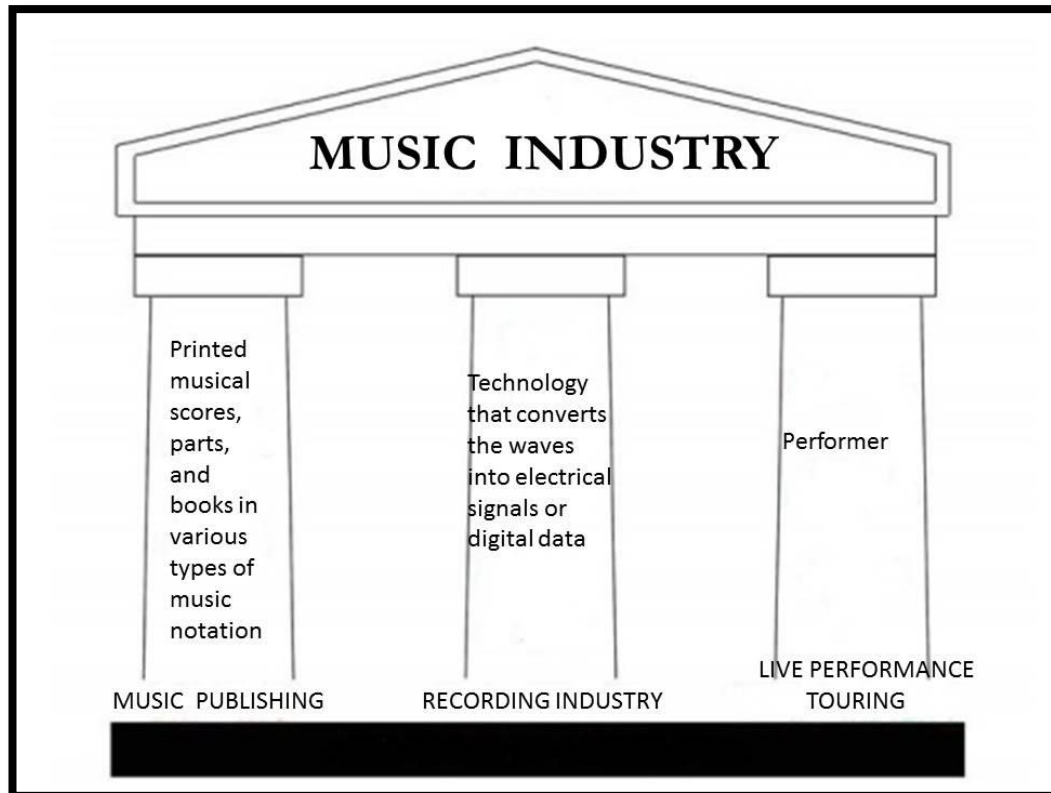
PICTURE 2. Theatre at Sabratha (Photo: Tonito 2010, modified)

### 3.1.2 Stagehands in Today's Music Industry

In order to understand the importance of stagehands in today's music business, one must first understand the basic structure of the music industry and then the economic crisis experienced by the music industry in recent history brought on by the digital age.

Entertainment attorney Steve Gordon (2015) "states it is a mistake to equate the recording industry with the entire music business. There are two other major components: music publishing (which is the business of generating money from songs rather than records) and live performance and touring." (Gordon 2015, XXV.)

Thus the music industry can be envisioned as being sustained by three pillars of revenue; the recording industry, the music publishing industry, and the live performance and touring industry.



PICTURE 3. Foundation of the Music Industry (Illustration: K. Grice 2017)

Live performance and touring industry pre-dates the recording and music publishing industries. Dave Brooks of Billboard magazine quotes Live Nation CEO Michael Rapino as saying:

“Live is a truly irreplaceable entertainment form — it cannot be replicated. It is elevated, not susceptible, to technology and is borderless.” (Billboard Magazine 2017.)

However the recording and music publishing industry were crafted based on the advancements in technology. Hence these two streams of revenue have been heavily affected by technological advancements; as noted by

Steve Gordon (2015) the irony is that technology created and nourished the recording and contemporary music publishing businesses—from the invention of the record player and the radio to the introduction of new distribution formats, such as the CD. But in the last 15 years, newer technologies, specifically the Internet and high-speed digital networks, have taken back much of that financial success by creating a panopoly of

ways-some illegal and some legal-to consume recorded music without paying for it. (Gordon 2015, XXV.)

The economic impact of technological advancements on the music industry can be seen in figure 1, which shows a financial decline in the U.S recording market from 14.5 billion to less than 7 billion between the years 1999 to 2013 (Gordon 2015, XXVI).

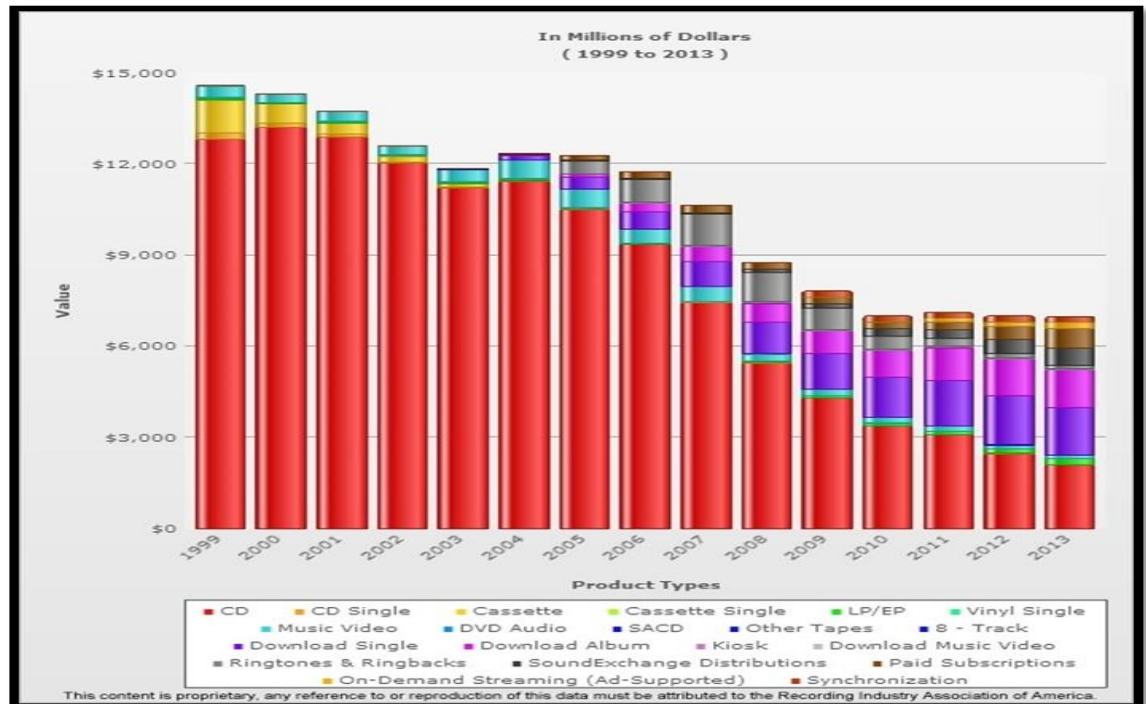


FIGURE 1. U.S sales and licenses figures for recorded music from 1999 to 2013

The same year in which the recording industry financially grossed less than 7 billion in 2013, marked a financial record high in the tour and live performance industry. According to Pollstar Trade Publication (2014) the gross figures for the 2013 North American concert industry topped out at a record high of \$5.1 billion U.S dollars. This historical high according to Gordon (2015, XXXIX), was a live performance revenue growth of more than threefold during the same interval in which the recording industry lost three-quarters of its proceeds in the U.S and around the world, while the music publishing business remained stagnant.

Last year's business financial figures and ticket sales continue to support Gordon's assessment of technological advancements on the economy of the recording industry, despite growth in the digital market. According to the I.F.P.I in 2016, the global recording music market strengthened by 5.9 (Global Music Report, 2017). Bring the year's gross for the recording industry globally to 15.7 billion at the close of 2016.

Even though recording industry has regained some measure financial stability, this stream of revenue still remains secondary to the touring and live performance industry on a global scale. According to executive director of Billboard Magazine Ray Waddell (2016) the touring and live performance industry at the conclusion of 2016 had an estimated of gross value of 25 billion U.S dollars. This is a difference of 9.3 billion U.S dollars when comparing the two separate revenues. In addition, there is now indication that the digital recorded industry is feeding the touring and live performance industry. According to managing partner of Creative Artists Agency Rob Light (2016) streaming makes unearthing new artists and, especially, rediscovering longstanding artists easier; then, “seeing them live becomes part of everyone’s shared need (Rob Light 2016).

This communal need to see artist perform live is reflected in the financial 2017 Mid-Year Business Analysis by Pollstar. Although, the year 2017 has not yet come to a close, the mid-year reports by (Pollstar 2017) have indicated that the top 100 North American tours have a combined gross of \$1.64 billion, which represents an 11% increase in revenue. Looking at the industry from a global scale, it was reported by (Pollstar 2017), that the top 50 worldwide tours have a combined gross of \$1.97 billion.

These records of financial growth shown by tour and live performance industry, in addition to being steadfast in the face of constant technological advancements, would indicate that this stream of revenue has become the backbone of the music industry; which in turn would signify that stagehands are a vital, indispensable segment of the industry, as they are the individuals solely responsible for the physical set up, execution of equipment use during a performance, tear down and transportation of stage, concert and tour equipment.

## **3.2 THE SONS & DAUGHTERS OF THUNDER: Sound Technicians**

*“Most people that you see on the street have no idea of what it takes to put on a show”*  
(Annables, 2017.)

*“The crew is an integral part of the band”* (Aaltonen, 2017.)

Quite often the world at large rarely has the opportunity to see behind the curtain when it comes to the touring and live performance industry; which means that the public at large do not often know or have limited knowledge concerning the various positions within the specialized departments e.g. rigging, lighting, video, pyrotechnics, and sound as related to technical crews when it comes to the production of a live performance. In this section focusing on the field of sound, I will briefly discuss the various positions on a typical sound team, in order to give an over view of this particular branch of expertise. When discussing sound crews it is not uncommon to find individuals whose skill sets and responsibility overlap when handling smaller productions. Although, there is still a measure of overlapping responsibility on the larger tours and events; it is on the larger productions where the different roles and levels of expertise on a sound crew which indicted below can be more readily observed.

### **3.2.1 Sound Crew Chief**

The primary individual responsible for everything related to the sound crew is known as Sound Crew Chief (Soundgirls 2017). This individual is responsible for the logistics of transporting the crew and equipment, establishing the times for crew call, and management of the load in, set up, and load out of equipment.

### **3.2.2 Stage Technician**

Once the stage is built it, it is the responsibility of the stage technician to set up the wiring and cabling for the stage that will be used by the sound systems

(Soundgirls 2017). Stage Technicians also play a vital role during performances by preparing microphones, stands, and cables needed during changeovers, as well as providing correct cable patching to patch bays (Soundgirls 2017).

### **3.2.3 Systems Engineer**

On larger tours and events, the sound systems that are used are general designed, installed, and calibrated by systems engineers.

As noted by Köykkä (2017) the station of system engineer is highly technical in nature; it is more physics than art.

Working in concert with systems engineers are systems technicians, who are responsible for the actual rigging, cabling, and setting up flying P.A sound systems on site (Soundgirls 2017).

### **3.2.4 Front of House Engineer**

Front of House Engineer, also known as “FOH”, as explained by Annables (2017) is responsible for mixing the overall sound heard by the audience at a concert or event; making that band sound right for that particular room or venue.

Moreover where the position of system engineer is deemed highly technical, the position of front of house allows the engineer more artistic license when it comes to mixing sound. As expounded by Köykkä (2017) FOH engineer can conceivably mix sound in accordance to their own personal tastes, while keeping within the stated inclinations of the band. If indeed, the band has made any inclinations towards preferred sound mixes known.

The FOH is possibly the most recognized station on a sound team and arguably most prestigious from the perspective of many individuals outside the industry. Undoubtedly, this is because the FOH is generally positioned in the section of venue that bears the same name “front of house”; which puts the FOH Engineer out in front of the stage, amidst the audience. In addition, the Front of House Engineer tends to be perceived as having direct access to the band because they are mixing the sound of the band.

On larger tours and events FOH engineers are assisted by front of house technicians. The Front of House Technician is responsible for the preparation and maintenance of the front of house equipment (Soundgirls 2017).

### **3.2.5 Monitor Engineering**

*“I want to work with the monitor engineering.”*

*“Ah....you picked the worst one!”*

(Annables, 2017.)

Mirroring the position of FOH engineer is the station of monitor engineering. The station of Monitor Engineer mirrors that of the FOH engineer save for four elements; the first difference to note is that in lieu of mixing sound for the audience, according to Annables (2017) the monitor engineer mixes the sound the musicians or performers listen to onstage during a performance through either monitor wedges or IEM. Hence there can be as many mixes as there are musicians/performers on stage, each mix uniquely tailored to suit the preferences of what instruments and or vocals the musicians/performer wish to hear in addition to the front of house mix.

Next, unlike the FOH Engineer who is positioned out in front of the stage, the engineer having a clear view of the stage and an unobstructed listening vantage point, the monitor engineer is generally positioned stage left, hidden from the public, with an unobstructed view of the performers.

The third element of difference is found in the fact that the monitor engineer maintains contact with the performers though out their performance. The reason for this level of constant communication according to (Soundgirls 2017) is that the monitor engineer must maintain the mixes during the performance to insure each musician is comfortable with their mix, while simultaneously guarding against unwanted feedback on stage.

*"Is not an easy task, and you are in the hot seat at all times." (Ebert, 2011.)*

The final variance between FOH and monitor engineering is reputation. Christened the "hot seat", monitoring engineering has a notorious reputation within the world of live sound and not without good reason.

According to veteran monitor engineer Andy Ebert (2011) a monitor engineer must be able react the instant a musician asks for something on stage. Not reacting quickly enough and as well as acutely to a request of a performer, or outright mistakes gives rise to possible disastrous instants during a performance. (Ebert 2011.)

Aaltonen (2017) "clearly states that good monitor engineering is highly critical to a show being good from the beginning; if the first thing that you have to do on stage is that you have to start sorting out the monitor problems, then the day is basically ruined from that point if things are not fixed quickly. If you have to spend the whole fucking show asking for this or that from the monitors it is not going to work."

Ebert's description of a monitor engineer's responsibilities during a performance is a clear, intense image that speaks to the high levels of adrenaline simultaneously running on both sides of the equation, from the engineer and the performer. This portrayal of a monitor engineer at work reveals the subtle yet high levels of communication, both verbal and non-verbal that exists between the engineer and the performer; it also reflects the trust between the engineer and the performer. This brief account of what it means to be a monitor engineer merely scratches the surface, showing one aspect of human interaction and pressure a monitor engineer will have to contend with during the course of a performance. There are other stresses that exist, both blatant and subtle in the live event industry, many of which a monitor engineer will have to cope with and overcome in order to develop the high levels of trust and communication with the performers and other technicians need to be successful monitor engineers. But just what are these other stresses?



PICTURE 3. Monitor World at Tullikamarin Pakkahuone. (Photo: K. Grice 2017)



PICTURE 4. Monitor World at Logomo, Voice of Finland. (Photo: K. Grice 2015)

## **4. OCCUPATIONAL STRESS FACED BY MONITOR ENGINEERS**

### **4.1 The Definition of Occupational Stress**

The first step in analyzing the different types of stresses associated with the occupation of monitor engineer is to define the term, “occupational stress”, so as to establish a foundation from which to explore the topic.

When considering the term, “occupational stress” it is worth contemplating the word “stress” as a separate entity first, in order to see the subtle but important difference between the word “stress” and the term “occupational stress”. As ascertained by the I.L.O, stress is defined as the damaging physical and emotional reaction triggered by a discrepancy between the alleged mandates and the alleged resources and abilities of individuals to deal with said demands (I.L.O 2016, 6). Whereas the I.L.O (2016), defines “occupational stress” as being stress that is directly triggered by company organization, work design and labour relations, which can bring about stress when the requirements of the job do not match or overwhelm the capabilities, resources, or needs of the worker. Or when the knowledge or abilities of an individual worker or group to manage the work are not matched with the expectations of a company or the in cliental (I.L.O 2016, 6).

As can be seen from the definitions given by the I.L.O, there is subtle difference between stress and occupational stress; which in turn makes it possible for an individual to suffer simultaneously from both simple stress that is grounded solely in the individual’s perceived abilities and resources to do a job and the demands of a company, a work design, or labour relations upon a worker when required to do a job. This distinction between “stress” and “occupational stress” is an aspect that should be kept in mind when discussing occupational stress or when a monitor engineer is assessing a situation where stress appears to be a key factor in the behaviour of the people around them or their own actions towards others.

### **4.1.1 The Human Cocktail**

The next step in exploring the occupational stress in connection to monitor engineering is to consider the demographic segment of the population that an engineer would most often have to contend with during the course of his or hers career.

### **4.1.2 Performers**

At the core of this demographic segment is the “performer”. As stated by Annables (2017) the monitor engineer mixes the sound the musicians or performers. Hence it can be said, that the monitor world revolves around the performer. In the world of monitor engineering a performer can take the form of a musician from any genre with a band size ranging from one individual to a world class orchestra, actor or actress, dancers, or T.V/conference speakers.

### **4.1.3 Performing Arts Support Workers**

The next demographic segment is that of the “performing arts support workers”. This would include but not limited to television producers, production assistants, technical director, artist manager and tour manager. The performing arts support workers that a monitor engineer may well interact with on a regular basis are the stage manager and the management team of the performer, which consist of the artist and tour manager. According to the (S.M.A 2014), a stage manager is responsible for the overall management and execution of a performance production according to the directives of the show’s director or head producer.

According to Author and Associate Professor Paul Allen in the Department of Recording Industry at Middle Tennessee State University (2007), artist managers are concerned with developing long-term careers for their artist.

Whereas as according to veteran tour manager and lighting designer Mark Workman (2012), tour managers are responsible for the organizing and implementation of the

logistics in accordance to a tour itinerary given by the booking agent that corresponds to the schedule of performances of a band or artist at set venues or festivals. These two professions can and sometimes do overlap, thus it is possible to encounter an individual who is both the artist and tour manager for a performer.

Furthermore, according to Haapala (2017) in response to the present economy, there is a demand for live event technicians who can function as a tour, artist manager...or even stage manager in some cases, in addition to their duties as technicians.

While fulfilling two niches from two different spheres within the music industry brings with it a certain type of intensity and difficulties, it also bridges the two worlds offering the possibilities of mutual understanding and cooperation.

#### **4.1.4 Peers**

Another demographic segment that a monitor engineer will encounter on a continuous base, are other technical personnel working in concert to product a show; their peers. These technical personnel encompass teams from other fields of expertise, such as lighting, video, pyrotechnics, rigging, as well as other members of the sound team working on site. As stated by (Köykkä 2017) you are doing a concert, everybody is doing the same concert, everybody is working together, so you should know something about work of your peers.

#### **4.1.5 Fans**

The last fragment of human interaction, with which a monitor engineer has to contend with, are the fans of a band or artist. Under normal conditions monitor engineers and fans have little or no contact; which means in this particular case interact between the two parties is indirect in nature. The indirect link between the monitor engineer and the fan comes in the form of “fan expectations” surrounding the performance of their favourite artist or band.

As remarked by Aaltonen (2017) fans wait for months and in some cases even years to see their favourite artists perform, which raises fan expectations, and by default may decrease a fan’s level of tolerance for errors or problems that might disrupt or stop the show, created by faulty equipment, poor technical judgement, or the artist themselves.

## **4.2 Viewing Distinct Forms of Stress**

This section of the dissertation will begin the process of examining several forms of occupational stress. While reading this segment the following should be kept in mind when considering occupational stress; often times occupational stress is not a clearly defined and neatly packaged set of responses or working conditions to which one can point to and say this and only this is the cause. Instead occupational stress under working conditions can frequently be perceived as a three dimensional, fluctuating entity, which can have a domino effect causing an overlap in terms of how it manifests, which demographic segment it affects and how, and the time frame and duration of said stress.

### **4.2.1 Working with Performance Careerists: Feast or Famine**

When assessing the occupational stress of a monitor engineer working with performers, the first trait to be noted is that the relationship between the two is mutualistic in natural.

According to (Cambridge Dictionary 2017), mutualism exists when two parties depend on one another — whether in a biological, social, or financial relationship — and both benefit from the alliance.

This definition of mutualism accurately describes the interaction between a monitor engineer and their client. The artist depends on the monitor engineer to provide a feedback free, specified sound mix on stage either via monitor wedges or I.E.M system, throughout the duration of the performance. The monitor engineer exists to provide such services. The monitor engineer needs an artist or band in which to provide said services. In the end, ultimately it means that the fate of both is intertwined.

Subsequently, given the mutualistic relationship that exists between an engineer and a performer, the nature of “creative careers” in an overall sense should be considered. Recent studies have shown that the creative arts most commonly to fall into two classifications, “Protean Careerists” and “Subjective Careerists” as indicated by

(Eynde, Fisher, & Sonn 2016, 6, according to Bridgstock 2013, Hall 2004, & Chandler 2005). Of these two classifications, it is the elements exhibited protean careers that have the most profound effect on engineers. Research shows that protean careerists tend to work freelance and are subject to low job security, intervals of unemployment, intervals of paid work from within their field, multiple occupations outside their field to subsidize their income and high mobility (Eynde et al. 2016, 6, according to Bridgstock 2005, 42.)

As a result of the mutualistic relationship that exists with performance artists, many monitor engineers tend to work freelance or they are self-employed; prone to similar patterns of feast or famine when it comes to employment, job security, the subsidizing of income, and high mobility that affect their cliental.

Thus for example, in the Australian entertainment industry where studies show that 64% of the performing artists worked freelance or were self-employed, comparable work patterns and percentages were found among the technical crews (Eynde et al. 2016, 11, according to Bridgstock 2005, 43)

#### **4.2.2 Threats to Job Security**

Whilst the music industry can be most profitable it is also quite precarious in nature. As with all business, industries are based around a commodity or commodities; some commodities are stable in nature, others are stable until confronted with stress or change from within or outside the industry. Then there are those commodities that are fragile in nature. The performer or band is a commodity that can be defined as both stable and fragile; subject to periods of stability and fragility intermittently brought on from stress both from within and outside of the artist. Which in turn can increase or diminish the job security of an employee; in fact, the aspects that can diminish an avenue of revenue in the concert and touring industry for an engineer are legendary; the stories well documented, well known by the public at large. Headlines such as, “Nirvana rocker kills self fatal shotgun blast” or “Layne Staley, 34, Alice in Chains' Singer, Dies heroin and cocaine overdose” are merely two examples that reflect decades of talent lost in the performance world. And, while the world mourns the loss of a beloved performer, little thought is spared for the technical crew whose livelihood was tied to that of the performer.

Suicide and drug abuse are just two of three self-destructive behaviours that can diminish job security for an engineer; the third behaviour being alcoholism.

When examining these forms of occupational stress and the level of frequency in which drugs and alcohol abuse occur, the numeric data indicates abnormal levels of occurrence within the music industry when compared to those outside of the industry. In the case of alcohol, according to (Eynde, Fisher, & Sonn 2016, 135), over 90% of all responders in each class \*performers, management teams, and technicians\* indicated they had used alcohol, 83% stated that they are currently consuming alcohol, with only 14.6% reporting they no longer consume alcohol.

There were three reasons given for this level of alcohol consumption; alcohol relaxed and calmed, addicted to alcohol, and social pressure.

*“A lot of it was networking and networking through drugs. I’d see somebody who’s after a bit of a chat, he likes a bit of coke or whatever so I might bring him a bag of coke the next day or whatever. And you’ll bond over this.” (Anonymous 8 2016, 141)*

Slightly different reasoning and figures were presented when reviewing data related to drug usage. Part of this difference is directly related to the type of drug being considered; the usage of marijuana for example according to (Eynde et al. 2016, 139), averaged from 44.9% to 52.4% in a 12 month period depending on which demographic group \*artist, management, or technician\* being contemplated. And, while the reasoning was found to be consistent with the first two reasons for consuming alcohol, the third reason for marijuana usage differed. The third reason given for marijuana usage was that it fostered creativity (Eynde et al. 2016, 140).

Cocaine usage however was found to range from 20% to 34.5% in a 12 month period, again contingent on which demographic group was being reviewed (Eynde et al. 2016, 140). The three reasons given for cocaine usage were; it helps them to remain awake during long work hours, it allows users to cope with the stresses of the job, and job networking (Eynde et al. 2016, 141). Similar numbers and motives for usage were reported in the utilization of ecstasy, painkillers and tranquillizers, and sleeping pills.

Overall the frequency of drug usage across the spectrum was, 4 to 12 times greater within the industry than in the general population (Eynde et al. 2016, 141).

This in turn increases the likelihood of diminished job security.

*“Working with a friend on bit of (occupation) work and I’ve worked one week with a guy (name) and the week after, he committed suicide. And he seemed pretty happy.” (Another respondent 2017, 148.)*

The suicide of performers and musicians in the entertainment industry has been the subject of several studies and the results reflect a disturbing trend. In just sampling the numeric data in overview of the subject, (Eynde et al. 2016, 149 according to Kenny 2014, 2015), estimate the rate of musicians and performers who committed suicide was 2 to 7 times greater than that of the general public in the U.S.A. The rate of suicide attempts by individuals working in the Australian entertainment industry has been shown to be double the general population. (Eynde et al. 2016, 169.)

As a threat to job security, suicide is best view from three separate stages, each stage progressively a potential threat to job security. The first stage is the actual presence of suicidal thoughts, whether it is momentary notion or more detailed and thought out process \*lifetime obsession\*. This first stage is known as “suicidal ideation” and though it does not always lead to suicide planning or attempts. It has been shown that 12% of the individuals who reach this stage advance to attempting to commit suicide according to (Eynde et al. 2016, 150, according to Pirkis et al. 2000).

The next stages to ensue are “suicidal planning”, which involves the gathering of necessary tools to commit suicide and actual “suicide attempts” themselves.

All of which increases the probability of little or no job security for an engineer.

Other factors that contribute to diminishing job security that are not directly grounded in self-destructive behaviour but could possibly lead to drug and alcohol abuse include performance anxiety and other forms of mental health issues.

### 4.2.3 Butterflies in the Stomach

While the overall subject of mental health issues is a broad and complex issue that will not be address in this dissertation, there is however one form of mental distress that will be briefly addressed due to the nature of the relationship that exists between an artist and the engineer during the performance and that is performance anxiety.

According to PharmD, FASHP, FCCP, Dean Emeritus and Professor Emeritus, Executive Director Emeritus, Research Institute of Pharmaceutical Sciences and School of Pharmacy Barbara G. Wells (2015, 674-675), performance anxiety is defined as a form of distress that is categorized as a “Social Anxiety Disorder” or “Social Phobia” that is specific to speaking or performing in public.

Essentially performance anxiety in its most rudimentary manifestation causes the artist to experience a rush of adrenaline, trigger by a “fight or flight” response to having to perform in public. This level of performance anxiety is generally known as “having butterflies in the stomach” and there are some performers that see it as something quite normal, even to some degree desirable. Aaltonen (2017) indicated that “having butterflies” right before a performance is good, because it means that you are alert, sharp and you care about your performance. Once the show starts, at some point during the first song the butterflies melt away, you relax and continue to perform.

(Aaltonen 2017.)

While it may be that experiencing a case of the “butterflies” could be considered helpful to some performers, performance anxiety becomes more problematic when it interferes or prevents an artist from performing. Symptoms of extreme performance anxiety in addition to experiencing the butterflies included but not limited to are, “diarrhea, sweating, tachycardia, and trembling according to (Wells 2015, 674-675).

Based on studies obtained from different countries, performers in different genres of music, it is estimated that on average 47% to 75% of performers had experienced some form of performance anxiety (Eynde et al. 2016). With such strikingly high percentage of performers suffering from performance anxiety, it is inevitable that a monitor engineer will work with a performer that experiences performance anxiety.

Which makes it paramount that the monitor engineer is not only aware when a performer is experiencing performance anxiety but how this anxiety may disrupt the lines of communication, making it difficult or even stressful to work with the performer.

#### 4.2.4 Difficult Personalities

In addition to performance anxiety creating stressful work situations, a performer who possesses a difficult personality can conceivably create a stress filled work environment. In fact, when looking studies conducted on the personalities of musicians for example from different genres, certain personality traits emerge; traits that in and of themselves do not indicate that the artist is being purposefully problematical but never the less, the traits can still cause stressful working situations. According to a study done by (Cooper and Wills 1989) rock musicians tend exhibited traits such as “tough-mindedness and suspiciousness. However, (Gillespie and Myers 2000, 156 according to Rieke, Guastello and Conn, 1994) indicated that jazz, popular, avant-grade, and classical musicians displayed traits of tender-mindedness, anxiety, and low self –control. Still in a more recent study by (Wayne Gillespie and Brett Myers, 2000) a wide range of personality traits were displayed by rock performers as specified in Figure 2.

#### *Rock Musicians*

TABLE 1  
NEO-PI-R Profile of 100 Rock Musicians.

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
<i>Trait</i>	<i>Abbrev.</i>	<i>Sample Mean</i>	<i>Sample SD</i>	<i>Population Mean</i>	<i>Population SD</i>	<i>z-score</i>	<i>z-test</i>
<i>Domain</i>							
Neuroticism	N	94.67	22.45	79.1	21.2	0.73	7.34*
Extraversion	E	113.73	16.79	109.4	18.4	0.24	2.35
Openness	O	133.98	17.97	110.6	17.3	1.35	13.51*
Agreeableness	A	117.42	14.11	124.3	15.8	-0.44	-4.35*
Conscientiousness	C	108.10	21.16	123.1	17.6	-0.85	-8.52*
<i>Facet</i>							
Anxiety	N1	17.29	5.43	14.3	5.3	0.56	5.64*
Angry Hostility	N2	14.53	5.19	12.4	4.6	0.46	4.63*
Depression	N3	16.52	5.45	12.3	5.4	0.78	7.81*
Self-Consciousness	N4	15.84	5.07	14.3	4.4	0.35	3.50*
Impulsiveness	N5	18.07	4.84	15.8	4.4	0.52	5.16*
Vulnerability	N6	13.36	9.18	10.0	3.9	0.86	8.62*
Warmth	E1	22.20	4.00	22.9	4.0	-0.18	-1.75
Gregariousness	E2	16.75	5.32	16.5	4.8	0.05	0.52
Assertiveness	E3	16.11	4.37	15.8	4.7	0.07	0.66
Activity	E4	18.44	4.37	17.6	4.4	0.19	1.91
Excitement-Seeking	E5	18.52	4.61	16.4	4.9	0.43	4.33*
Positive Emotions	E6	21.72	4.57	20.2	4.5	0.34	3.38*
Fantasy	O1	22.50	4.65	16.6	4.9	1.20	12.04*
Aesthetics	O2	23.97	4.05	17.6	5.3	1.20	12.02*
Feelings	O3	24.00	4.34	20.3	4.0	0.93	9.25*
Actions	O4	17.69	4.02	16.4	3.7	0.35	3.49*

Actions	O4	17.69	4.02	16.4	3.7	0.35	3.49*
Ideas	O5	21.99	5.42	19.0	5.0	0.60	5.98*
Values	O6	23.82	3.78	20.7	4.1	0.76	7.61*
Trust	A1	19.32	4.00	21.3	4.2	-0.47	-4.71*
Straightforwardness	A2	18.71	4.96	21.2	4.4	-0.57	-5.66*
Altruism	A3	22.53	3.34	23.6	3.5	-0.31	-3.06
Compliance	A4	17.26	4.22	18.9	4.0	-0.41	-4.10*
Modesty	A5	18.14	4.28	18.9	4.2	-0.18	-1.81
Tender-Mindedness	A6	21.54	3.01	20.5	3.5	0.30	2.97
Competence	C1	20.04	3.44	22.2	3.5	-0.62	-6.17*
Order	C2	15.82	5.15	19.0	4.2	-0.76	-7.57*
Dutifulness	C3	20.64	4.30	23.2	3.9	-0.66	-6.56*
Achievement-Striving	C4	18.63	4.64	19.5	4.0	-0.22	-2.18
Self-Discipline	C5	17.04	5.34	21.8	4.3	-1.11	-11.07*
Deliberation	C6	15.96	4.59	17.5	4.1	-0.38	-3.76*

\*Significant at  $\alpha = .0007$ .

Column 7 = (column 3 - column 5) / column 6.

Column 8 = (column 3 - column 5) / (column 6 / 10).

FIGURE 2. Profile of 100 Rock Musicians, 2000

Hence engineer who must work with an artist who for example, is “tender-minded” and thus are easily affected by criticism; or the reverse, an artist who is “tough-minded” hence that particular artist may have the tendency to be strong-willed and abrasive towards others, may find themselves in a relatively stress filled work environment, as they struggle to deal with these traits. Especially if the performer is unaware of how their personality traits affect others, which in turn only complicates the situation.

#### 4.2.5 Competition

Competition within the music industry for jobs is often very intense no matter what the position is that is being sought. While there is limited research related to this particular type of occupational stress for monitor engineers specifically, it may be possible to extrapolate how competition could potentially manifest by observing how competition occurs between performing arts support workers; bearing in mind the engineer and performing arts support workers all exist and work within the same industry, hence they may be in theory subject to similar forms of competition.

One of the rudimentary methods of learning the craft or gaining access to the industry is to work for little or no pay is described by (Eynde et al. 2016, 18 according to Hesmondhalgh & Baker 2009; Percival & Hesmondhalgh 2014). While this is a valet method of obtaining entry into the field, an environment where there is a seemingly endless supply of unpaid/ low wage workers to choose from is simultaneously destructive to both the entry level and more established, experienced employees; it

causes occupational stress in the form fewer jobs for wage workers due to unpaid/low wage workers filling the positions, threatens job security, perpetuates the belief that careers in the music industry are not necessarily “real jobs” hence no need to pay for the services and it also can open the door for worker/ employer violations in the work place.

In contrast to competition in the form of unpaid/low wage workers there is competition in the practice of networking. Within the entertainment industry many jobs are obtained through networking according to (Lee 2011) rather than the traditional means of acquiring work.

In its base form, (Merriam-Webster 2017) defines networking as “the exchange of information or services among individuals, groups, or institutions; specifically; the cultivation of productive relationships for employment or business”.

However, Emeritus Professor and Chair of Business Ethics at IESE, University of Navarra Domènec Melé (2010, 490) indicates that there are several types of networking that can exist simultaneously, two of which are “utilitarian” and “emotional” networking”. While the “utilitarian networking” retains a similar definition as that of Merriam-Webster’s dictionary generalized definition of networking, “emotional networking” adds a different dimension to the understanding of networking, along with ethical concerns.

Melé (2010) describes “emotional networking” as optimistic feelings toward network relationships or the desire to have a friendship with other individuals within the network who find enjoyment in each other or in the same things. Emotional networks can also manifest feelings of pride in an individual for being part of a network, regard toward the network itself, or affection toward those directly connected to one. (Melé 2010, 491)

Stress filled environments occur when accomplished networkers use their personal relationships to influence hiring decisions in their favour. This is a form of competition is difficult to overcome, simply because it is not strictly based on the occupational skill set of the worker and according to (Eynde, Fisher, & Sonn 2016, 18 corresponding to Grugulis & Stoyanova, 2012), networking can be used to exclude others, hence making it easier for a skilled networker to isolate possible employers so as to benefit from it.

*“It -the lifestyle- is really addictive.”* (Laasonen, 2017)

### **4.3 The Office for Today**

Often the work environment, office of a monitor engineer is a closed world to the general public, that frequently changes with each show or artist that they work with.

It should be noted that this term “closed world” does not just referring to an environment based separation but this separation also refers to a mental separation. This seemingly mental separation can be seen in the language that is used, as well as the attitude displayed towards those perceived as “outsiders”. (Eynde, Fisher, & Sonn, 2016), state in their study that it is not uncommon to hear those outside of the industry referred to as “civilians”. When asked during an interview, “How would you describe what you do to someone outside the industry? Veteran sound engineer Laasonen responded in a calm, direct manner “To a total civilian? I wouldn’t. They wouldn’t understand”

(Laasonen, 2017)

Laasonen’s response echoes countless others in the industry who share similar views. Some views when expressed are straight forward, others subtle, but never the less; however this view is expressed, this separation existences.

It is vital however to understand the environment in which a monitor engineer works, if an overall view of the occupational stress experienced by a monitor engineer is to be examined. Hence this selection of the dissertation will explore the some of the most common work settings for monitor engineers.

#### **4.3.1 The Club Circuit**

The (American Heritage Dictionary 2016) defines the term, “club circuit” as the following as an alliance of theaters in which plays, acts, films will move from theater to theater. Or in the case of music, the “club circuit” indicates group of nightclubs, show halls, or resorts that have monthly programs that present numerous artists.

In terms of work environment for a monitor engineer, the club circuit is best viewed from two different perspectives; the fact that venues and people -the guest engineer,

house engineer, and the crews- change; and each position, that of the guest engineer and house engineer brings with it different forms of stress and workload. According to Köykkä (2017) as a guest engineer you must contend with the sound equipment in that venue. Sometimes it requires you to cope with unfamiliar equipment, poorly maintained/broken equipment, or an absence of equipment; or you bring your own equipment when possible, that way you have what you need to do the job. The other aspect that must be contended with is the venue's acoustics, which vary from one venue to another. (Köykkä 2017.)

From a different standpoint, both Annables and Laasonen (2017) have indicated the importance of being able to quickly build a rapport with the local crew and the in-house guys if you are the guest engineer; you're using their equipment; it is best to get on their side straight away. From the perspective of the in-house engineer it is up to them to bring the guest engineers up to speed concerning the venue's equipment according to Annables and Laasonen (2017).

#### **4.3.2 Tours and Night-Liners**

Performers and their crews who tour around the world are often seen as living a glamorous and exciting lifestyle, all the while getting paid to seeing exotic places. While there is a certain amount of prestige to being on tour, traveling around the world, and a passion and love that is felt by the engineer concerning their craft, there are other aspects associated with the touring life that are less than glamorous.

One of the first things to consider is the actual logistics of global travel. While it has always been necessary to have a passport to travel outside one's native country, it can be a source of stress to have to continuously deal with ever changing, restrictive regulations and security measures when entering a country; as well as, being ever mindful of the political atmosphere concerning a government's stability and international policies. A prime example illustrating these sorts of difficulties in this aspect of traveling is the need for having two actual passports. According to tour veteran and writer Ryan George (2014) it is prudent to have two passports not only in case one loses one's passport but also it is advantage to have two passports when you

have to obtain a visa and you are already out of the country or when visiting countries who decline entry to holders of passports with stamps from enemy countries.

A large percent of traveling around the globe once the country entry requirements are met consists of mundane activities. According to Grammy nominated producer Matan Zohar (2015), a large portion of touring consists of waiting at airports, spending considerable time in flight and living out of hotels; all of which can take a toll on both the body and mind. Living day to day in this manner for months or even in the case of some tours years at a time without taking proper steps to maintain one's physical and mental health can lead to problems. According to George (2014) such a lifestyle without proper care can lead to but not limited to chest and stomach pains, angry emotions, and irritability which are symptoms of mental exhaustion; or symptoms such as but not limited to, anxiety, insomnia, and stiffness which indicate physical exhaustion.

Furthermore, this level of stress if not addressed can over time diminish a person's ability to recover from tour after tour, leading eventually to a burnout; which as stated by George (2014) can bring about a host of new sets of crises which include but not limited to heart disease, stroke, vulnerability to illnesses, excessive stress, or alcohol and drug abuse.

*"I'm going to me bunk!"* (Annables, 2017)

Then there is the dynamics of interacting with people over extensive periods of time, in close quarters, with the only privacy available being when you have your own hotel room, or in the case of night-liners the only privacy being your sleeping bunk when the curtains are drawn.

Frequently, the choice of whom one lives with on tour is dictated by factors that are not always controllable; such as the available budget for hotel rooms or night-liners.

Hence, having people skills is an invaluable skill set to an engineer's success on both the tour and their overall career. As indicated by

Annables (2017) it is being able to read the band or one's peers. If you see that somebody is having a bad time, it could be several things; it could be you if you're not giving them exactly what they want, tours go out for a long time and sometimes they have personal problems. So that can affect; it's not necessarily you. But if they are having a bad day then it can affect the overall thing. I think definitely, again 90% with the band,

having a good communication, and if there is a problem to be able to get over it without screaming and shouting because soon as people start screaming and shouting it touches everybody else and everybody else is in a bad mood, and soon they start screaming and shouting. (Annables 2017.)

Aaltonen (2017) indicated a similar perspective when he remarked...you end up spending lots of time in close spaces with twenty people. You have to start understanding people. You have to understand when someone needs space, when some people want to talk. You have to start acknowledging other people; you can't act as though you are by yourself. (Aaltonen 2017.)

With large bands where there are larger budgets, there is the likelihood of having several night-liners on the tour, and thus there is the prospect of separating the crews and the band, which to a certain degree acts as a stress release valve. Case in point Annables (2017) indicated instances of being on tours where the band and the crew had separate buses, that way the band could bitch about the crew and the crew about the band, without it turning nasty.

Having different tour buses for the crew and the band also speaks to the different schedules each group keeps. Haapala (2017) states that in general the crew must be up early to start the stage set up. If everyone is on the same bus the noise from the crew getting ready to start their day could easily irritate the band, who most likely just went to bed. On the other hand, after the show and tear down the crew needs to sleep, whereas the band does not necessarily need to or even want to go to sleep after a show. Here again, everyone not being on the same bus keeps the crew from becoming stressed while trying to rest. It is understand human dynamics. (Haapala 2017.)

Of course, there is the reverse of being under stress due to months of living in close proximity; the comradery of living in close quarters for months at a time. In this case the feeling of stress does not occur until around the last two shows of a tour or after being home from a tour a day or two. According to guitarist/vocalist of "Sleep On It" TJ Horansky (2017) returning to the mundane world of everyday life, the stress can manifest in terms of having to adjust everyday life, loneness due to the lack of close comradery that is found on tour...not being on the road, and just the plain desire to be back on the road.

Additional stresses that can manifest for an engineer while working on site as part of a technical team working in a constant, close proximity are; concerns as to whether or not one has the skill set needed to work the gig and what is one's standing within the social/technical context of the team. According to (Eynde, Fisher, & Sonn 2016, 85) those technicians between the ages of 18-29 tend to have higher levels of stress, anxiety, and uncertainty due to them trying to establish themselves in the industry but lacking the experience in which to show the more seasoned engineers, that they in fact do have a place on the team. It was also noted by (Eynde et al. 2016, 85), that women in this particular career manifested even higher levels of stress in relationship to striving to establish themselves while lacking experience. A possible underlining reason for the higher stress levels in women is the fact that the sound industry...the entertainment industry is predominately male oriented; hence women entering the industry must work twice as hard to earn the same standing on a team as her male counterpart.

### **4.3.3 Outdoor Festivals**

Festivals can easily be viewed as the crown-jewels of the music industry. Whilst festivals started off as countercultural events aimed at societal norms and government policies in the 60's and 70's, fast forward forty years later and festivals are a multibillion industry according to (The Financial Times 2017).

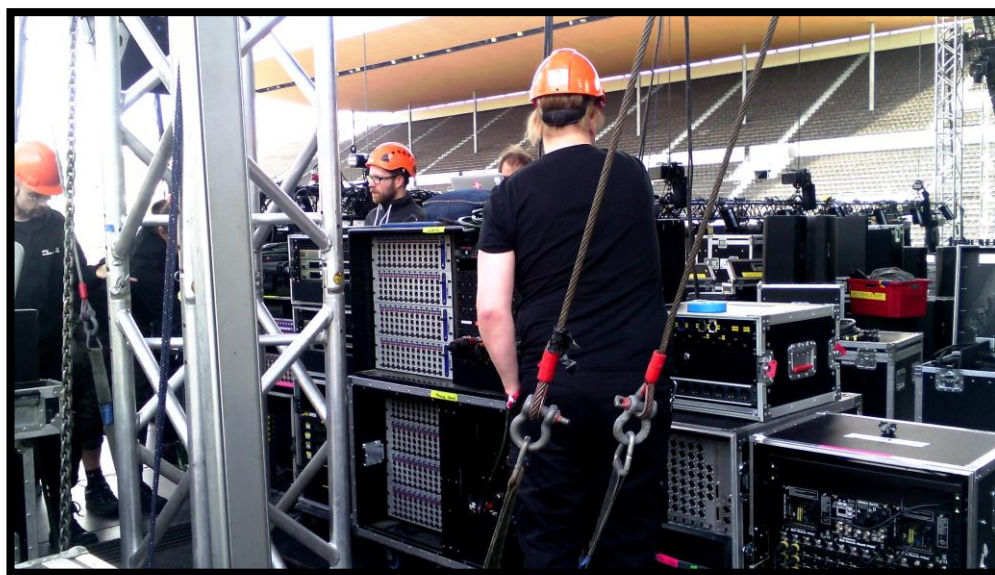
According to Live Nation's chief operating officer Joe Berchtold (The Financial Times 2017) the over 60 million people in 2015 that attended a Live Nation concert did so in a festival environment. The duration of a festival can range from one day to a full week and they tend to showcase a specific genre of music. As stated by (The Financial Times 2017), festivals are one once in a year event, thus all of the infrastructure and stages are erected temporarily. With all the stages and infrastructures being temporarily erected this introduces several complexities and stresses for engineers.

The first of these complexities and stresses is the actual environment of stages at festivals. During the course of setting up and even after the complete set up, a festival stage is similar to an active construction site as opposed to stable elements found in a venue. When asked whether or not he would agree that a festival stage setting could be likened to that of a construction site, Laasonen (2017) responded, "I would say yes though I am more inclined to say that a festival stage setting is more like a cluster-fuck just waiting to happen". Working in such a potentially dangerous setting requires

alertness, communication, and trust among the technicians. Laasonen (2017) stated “I trust my team, I have to be able to trust them; everyone who works on site has already gone through several filters of sorts...trials by fire...they are always on the level...they have be educated along the way; I have to be able to know that everyone working on site is alert, can take responsibility for their actions, that if someone sees something dangerous, they will yell “stop!” indicating that “everyone” should stop because something potentially dangerous is about to happen! Lives depend on it!”

Also, due to the fact that outdoor festivals require stages to be built and equipment to be installed set and the festivals themselves can take place over several days, the amount of work hours involved often results in engineers working until the early morning, on little or no sleep.

Once everything is constructed and the equipment is installed the stress level of the monitor engineer becomes somewhat reduced; instead of an extensive amount of mixing Köykkä (2017) indicates that it’s more akin to you trying to manage with the space, know where you can put the console, knowing where guest engineers can draw power from; knowing all the lines; it’s more like managing the area; providing what they need.



PICTURE 4. On site set up for Helsinki Live Aid. (Photo: K. Grice 2015)

The reason for this subtle change in responsibilities for the engineer is based on the fact that the majority of the bands that will perform at the festival will have their own personnel and equipment to various degrees. This is especially true of the big headliners

who tend to have their own gear and a full team of technicians; they only need a power source and a P.A system.

In describing working as a monitor engineer at a festival, Köykkä (2017) notes that festivals are much more exciting! You have line check. You have a band and artists. There is no rehearsing. You check the lines and go. After the show, the band goes away, you have no idea how you did, and the band might go to the bus and say that it was a shitty sound or it might be good. (Köykkä 2017.)

*“It’s more everything...less time.” (Köykkä, 2017)*

#### **4.3.4 Television Set**

As opposed to the outdoor festival approach of “you check the lines and go...you have no idea how you did...” working on a television sets more complicated and stressful in terms of work environments and execution. The first element of complication is scheduling. Live broadcasting television programs have their own allotted time slots in which to show; these slots are fixed which in turn means time is a critical factor. As stated by Köykkä (2017) “there is no such thing as falling behind schedule.”

Usually there is a stress filled, immediacy to working on a television show as a monitor engineer that brings with it small margin for error. Many times as a monitor engineer, you rehearse once then the show goes live according to Köykkä (2017).

The last element of stress tied to working on a television set is the technical complexity that is involved. This technical complexity takes the form of coordinating monitor engineers, front of house engineers, broadcasting technicians, camera people, lighting, rigging, riggers, pyrotechnics, stage technicians, and performers. As remarked by Köykkä (2017) from a technical view it is more complicated! It is highly programmed.

## **4.4 A Taskmaster Called Time**

According to Annables (2017) time is “always” an issue in this industry. In this section this dissertation will look at several of the stresses imposed by “time” upon monitor engineers and others that work in the industry.

### **4.4.1 Travel**

The battle against time in essence can be triggered by anything. According to Annables and Haapala (2017) these triggers manifest themselves in the form of distances travelled from show to show, technical difficulties, lack of information to calculate touring logistics, and incompetent crews. According to Annables (2017) triggers such as “missing connecting flights or a crew that takes longer on the loadout can in turn pushes the drive time back, resulting in the entire entourage arriving an hour or two late or missing a much needed rest day because you arrived a day late via plane and must go straight to work; and if that crew at the new venue is no good, then there is stress, stress”.

### **4.4.2 Swing Shifts: Pandora’s Box**

Originally, the term swing shift was applied to employers and factory owners who increased their labour mass by offering more work shifts at non-traditional hours, which in turn increase the company’s production (Horn & Schaffner 2003, 535). So in essence the term “swing shift” applies to those work shifts outside the hours between 7am and 6pm.

Although, swing shifts were created to increase a company’s level of production, these non-traditional work hours have now become the standard by which some industries solely operate their businesses by; the live event industry is such an industry. With many live event productions occurring at night or in the case of festivals, that have performances occurring throughout the day, having teams of sound technicians’ working day, evening, morning or rotating shifts is part and parcel of work conditions in the industry. According to (Eynde, Fisher, & Sonn 2016, 74, 76) the non-traditional job

schedules of sound technicians which would include monitor engineers indicate that it is commonplace if not standard operating procedure that 78% of the technicians work evening/night shifts, 81% worked the weekends, and 76% worked unpredictable hours

Similar to Pandora's Box of Grecian mythology that when opened released all evil into the world; the aspect of working swing shifts on a constant basis can open up the door to allow for a host of ailments, ranging physical problems to work related accidents to emotional difficulties, and everything in between to manifest.

The first, most obvious, impact on an engineer's well-being is a change in sleeping patterns. Since swing shifts work against the human body's natural circadian rhythms, there is a strong probability of sleeping problems such as sleep deprivation, which in turn can lead to disruptive sleep or insomnia developing over time. As indicated by PhD, RN Research Health Scientist Claire C. Caruso for NIOSH (2014) there is mounting evidence that suggests there is a connection between working swing shifts and sleeping disorders (Caruso, 2014). The study by (Eynde, Fisher, & Sonn 2016, 76-78) seems to confirm the NIOSH suspicions. Their findings indicate that 76.8% to 53.7% of the sound technicians that worked swing shifts were experiencing some form of sleep disorder ranging from "feeling as though they do not get enough sleep, always feeling tired to outright insomnia" (Eynde, Fisher, & Sonn, 2016).

Increased sleep deprivation inevitability places stress on the brain to obtain the rest need to function properly, which in turn increase possibility of an individual falling asleep involuntarily, escalating the changes of work related accidents occurring. Consequently, for example according to a study by authors Linda Ng Boyle and Amit Paul of Department of Mechanical and Industrial Engineering, University of Iowa; Jon Tippin and Matthew Rizzo of College of Medicine, Department of Neurology, University of Iowa (2008) sleep deprivation increases the chance of an individual experiencing a phenomena known as "microsleep", which is when an individual for a split second falls asleep, while appearing to be awake (Boyle, Tippin, Paul, & Rizzo, 2008). Needless, to say an engineer that experiences a "microsleep" at a critical time such as hanging a P.A system or driving can cause a serious or fatal accident to occur.

Sleep deprivation also can increase the occupational stress experienced in a work environment in other ways as well, due to a person's inability to adequately interact with other members of the team on a personal or professional level. According to

(Caruso 2014) sleep deprivation can hinder communication skills, intensify irritability and bad moods; and make it difficult for a worker to fulfil the emotional demands of the job. Addition, health issues caused by sleep deprivation include heart disease, obesity, and digestive disorders.

The irregular hours of working swing shifts can also stressfully impact relationships, both on personal level, as well as the relationship of friends who work in the profession. Given the nature of the industry and the timeframe needed in order to set up a stage, for an artist to execute a performance, and then for technicians to tear down a stage requires huge amounts of time. Fundamentally, this makes it difficult if not impossible to maintain a social life with civilians, especially if it is a tour and not just a single performance in a venue or arena. This difficulty in sustaining social ties with family and friends outside of the industry was reflected in the study by (Eynde, Fisher, & Sonn, 2016, 79) where 58% sound technicians indicated difficulty in maintaining normal family time, while 63% found it difficult to retain a normal social life with civilians.

In the cases, where 42% did not find it difficult to maintain some sort of family time and 37% did not find it difficult to retain a semi-normal social life with civilians may be due to the ability of those civilians to communicate and adapt to the world in which sound technicians in their lives live. As stated by Haapala (2017) it takes a certain type of person to deal with the other being away. In addition, Aaltonen (2017) indicated that it is not that you can't spend time with family and friends; it is a matter of allocating time in a different manner. For example, instead of vacationing with family at the time of year when everyone is, you may have to do it at the end of the year.

The ability to sustain a relationship with friends within the industry does not seem to be as compromised as that of personal or family relationships. According to (Eynde, Fisher, & Sonn, 2016 79), only 45% of the technicians indicated that they found it difficult to stay in contact with friends in the industry. The reason for the lower percentage of difficulty may stem from the fact that there seems to be a loose yet stable form of network, much like that of a spider's web that exists within this closed world.

Aaltonen, Haapala, and Köykkä (2017) indicate that a very close knitted social structure exists; that even though you might only see one another twice a year there is the feeling that you are being supported by your colleagues as if you were family. Hence, this network does not necessarily provide the opportunity for physical interaction, given the

very real possible of performers and technical teams working on the opposite ends of the globe from other performers and their teams; the network does however create a system of support, communication, and understanding should the need arise.

## **4.5 The Sound of Music**

Quite often in the sound industry much thought is given to the protection of one's hearing. This aspect of having good hearing protection tends to be emphasised from the onset of a sound technician's career and rightly so; (NIOSH 2017) estimates that roughly 22 million American workers exhibit some form of hearing loss every year. While it is prudent to protect against hearing loss, very little attention or thought has been given it seems to the stress experienced by other parts of the body and the emotions when a sound technician works with music and sound in general on a regular base, as when on tour or working a standing gig at a venue.

In this segment thought will be given to exploring the theoretical possibility of sound and music stressing the body and emotions of a monitor engineer in their work environment.

### **4.5.1 Music Induced Physical Stress**

The use of sound and music to heal and soothe dates back to antiquity. According to psychiatrist, neurologist, and professor of psychiatry at the University of North Carolina, MD, PhD, DLFAPA Assad Meymandi (2009) the art of healing through sound was practiced by various ancient cultures. The ancient Egyptians are described as using musical incantations to heal the sick, Grecian healers were to noted use the vibrations from certain musical instruments to correct digestion problems, emotional difficulties, or induce a state of sleep. (Meymandi 2009.) Even Aristotle speaks of the healing wonders of sound and music, in his writing entitled "De Anima".

Yet, it is not until the 1700s that the world of science began to explore and record the effects of music and sound on the human body and psychic. According to

(Meymandi 2009) scientists such as Parisian researcher Diogel and later the Russian physiologist Ivan Tarkhanov were among the first to document how sound and music could lower a heart rate, increase the volume of blood pumped by the heart, and aid the parasympathetic nervous system.

Within context of modern history, according Head, Dept. of Physics & Electronics, Indian Academy Degree College & Post Graduate Research Centre, M.Sc., Ph.D., M.B.A, Meena Laad (2010), the first concentrated efforts to develop vibroacoustic units... systems to generate specific frequencies to use in the treatment of physical and mental ailments were created by clinical psychologist Petri Lehtikoe in the 1970's at Helsinki University, Finland; Norwegian educator and therapist Olav Skille in the 1980's; and American inventor Byron Eakin in 1985. (Laad, 2010.)

In terms of modern day medical treatments, the use of sound is now considered an established branch of medicine, as can be seen with the use of ultrasound in diagnostic medicine, the use of sound to remove a kidney stone safely, or relieve physical and mental stress. Within a medical environment the utilization of sound frequencies to treat ailments is a precise science that is overseen by professionals in the medical field, so as to promote health and well-being.

But what about exposing the body to unmonitored, sound frequencies on a regular base such as is found in some occupations?

Over past years, a new form of occupational disease has been increasingly becoming prominent in certain professions that expose workers to loud sounds; such as aeronautical technicians, military pilots, disc-jockeys, commercial pilots and cabin crewmembers. And, in recent years this malady has started to be found in non-occupational environments. The condition is known as Vibroacoustic disease or VAD.

According biomedical engineer, physicist, and environment scientist Dr. Mariana Alves-Pereira at School of Biomedical Engineering, Sciences and Health Systems, Drexel University and Centre for Human Performance in Portugal & MD Nuno A.A. Castelo Branco, MD, at Centre for Human Performance, Portugal (Alves-Pereira & Branco, 1999) VAD is a noise-induced, whole-body pathology, of a systemic nature, caused by excessive and unmonitored exposure to low frequency noise at (90 dB SPL, < 500 Hz) over time. (Alves-Pereira & Branco, 1999)

VAD is a disorder that over time causes a thickening of the blood vessel walls, the heart valves, and the pericardium sac which encases the heart; in the instance of pericardium sac thickening, the sac goes from three separate layers, to five separate layers. Also, in the more advanced, untreated cases of VAD episodes of epilepsy, rage-reactions, and suicide have been documented; it should be noted that in the cases of rage-reaction and suicide attempt the patients did not seem to remember the event.

At a conference held in the Netherlands, Alves-Pereira, Branco, João Joanaz de Melo & Maria Cristina Marques (2004) suggested that the thickening seen in the blood vessel walls, heart valves and the pericardium sac may be the body's way of lessening the unwanted effects of low frequency vibrations on body tissue and cells. No theories as to date have been offered to explain the epilepsy, rage-reactions, and suicide attempts that have been documented in patients with VAD.

At the time this dissertation was being formulated, there was no data available to indicate what percentage of sound technicians suffered with VAD, if at all any. The main reason for this is that organizations such as NIOSH tend to only acknowledge the damage that occurs to hearing and not to the body as a whole.

However, given the work environment of sound technicians...monitor engineers, it would be theoretically plausible that a fair percentage of sound technicians would manifest mild to medium symptoms of VAD based on their years in the industry if tested. The reason for this plausibility lies in the fact, that despite the regulations established by many countries, the World Health Organization, and International Organization for Standardization of Acoustics concerning sound exposure at festivals and concerts, it is "not" unheard of for set the limit which ranges from 80db-87db to be surpassed. Case in point, the study by the Radiation Protection Division, Swiss Federal Office of Public Health, conducted by Mercier V & Luy D, Hohmann BW (2003) at the Paleo Festival in Nyon, Switzerland indicated that exposure during a performance was typical 95db; although in some instances exposure surpassed 100db.

A study by SINTEF ICT, Acoustics Group in Trondheim, Norway (Tron V. Tronstad and Femke B. Gelderblom, 2016) reported similar findings.

#### 4.5.2 Music Induced Emotional Stress

In order to brooch the subject of emotional stress that has been induced by music in an engineer's work environment, the terms emotions and moods must first be defined.

Holder of a Ph.D. in physics, a master's degree in music composition, professor of musical acoustics at Sheffield University and classically trained musician Dr. John Powell (2016) defines moods as "an emotional state that is not induced or dependent on a specific event or stimulus; also moods tend linger longer than emotions and are wont to be described in terms of positive and negative aspects.

Emotions on the other hand are responses to a specific event or stimulus, which are also accompanied by actual unconscious biological reactions, which serve to aid in the organism's survival (Powell 2016, 31).

Examples of pure responses to a specific event or stimulus that induces emotionally aroused states would be "a sudden noise(specific event)...which induces an immediate flight or fight response or rotten food(stimulus) which in turns produces the emotion disgust, which protects an organism from digesting food that would damage the body."

Although this is a relatively new study as to why music has the ability to cause emotions when heard, it is believed that music triggers certain mental processes that are coupled with emotional responses needed for survival. The reason for theses emotional responses are due to the fact that the human brain does not register music as music per say but the brain registers music as strictly sound, to be interpreted in light survival.

As indicated by (Powell, 2016, 55- 56 according to music psychologist Dr. Patrik Juslin and Doctor of Philosophy and founded Europe's first MSc in Music Psychology John Sloboda 2013, 53) there are seven psychological mechanisms, that are linked to emotional responses, that aid in human survival, that can be triggered by music, they are:

1. Brain stem reflexes, which are responsible for the adrenaline increases in the body in response to a sudden or loud noise. In the case of music the adrenaline rush happens on an unconscious level before the other parts of the brain can signal that the loud or sudden noise presents no danger. (Juslin & Sloboda 2013, 53.)

2. Rhythmic entrainment can be thought of in terms as having the ability to do repetitive tasks again and again effectively. Rhythmic entrainment can be observed in the human body when the heart rate or breathing rate synchronizes to the beat of the music, which in turn causes the brain to believe that it is experiencing the emotion that fits the heart or breathing rate that is occurring. (Juslin & Sloboda 2013, 54.)

3. Evaluative conditioning is the act connecting a satisfying activity to sound (Juslin & Sloboda 2013, 54).

4. Emotional contagion is act of being empathically caught up in a piece of music (sound), it is a process that facilitates bonding between human beings (Juslin & Sloboda 2013, 55).

5. Visual imagery allows an individual to calculate the outcome of a possible action. In this case music (sound) can trigger visualize in pictures, very much akin to daydreaming (Juslin & Sloboda 2013, 55).

6. Episodic memory is the act of associating sound with different situations that have produced some sort physical sensation, such threats, fatigue, or gratification (Juslin & Sloboda 2013, 55).

7. Expectancy allows an individual to approximate what will happen next. In terms of music (sound) a person upon hearing a note (sound) creates mental probabilities as to what will happen next. (Juslin & Sloboda 2013, 56.)

It should be noted that all seven of these mental processes are triggered on an unconscious level, which means that it is impossible to condition oneself “not” to have these responses. It also means that these processes can be experienced separately or simultaneously by an individual, which can lead to music (sound) manifesting different emotional responses all at once.

At the time this dissertation was being formulated there was no research available pertaining to how sound technicians are effected emotionally by the aspect of having the seven psychological mechanisms listed above constantly being triggered due to a work environment that contains large volumes of sound stimulus.

However, it is theoretically plausible that being subjected to large volumes of sound stimulus on a regular base, thus raising the percentage of time spent in a state of emotional arousal can bring about some form of emotional stress; which might explain why many sound technicians when coming off of a tour do not listen to music when at home the first several days back or do not listen to music at home period. It may not simply be the fact that they are tired of “listening” to music and need a break from doing so. It might in fact be that on a subconscious level they need to rest from having their innate survival mechanisms being triggered so often.

## 5. PSYCHOLOGY & CONFLICT RESOLUTION

In the previous segments much thought has been given to the discussion of stress and its effect on people in different contexts but what about the individual on a personal level. How important is it to have a skill set in which to deal with people in different context of stress within the live event industry?

### 5.1 The Submarine Principle

When discussing the importance of possessing a proficiency in interrelating with people verses having a proficiency in technical equipment with the expert interviewees for this dissertation, they all agreed that being able to deal with people is vitally important in the industry.

The following illustration that was given by Viltso Haapala subtly yet potently underlines the importance of having people skills that was expressed by the other interviewees.

Haapala (2017) I usually start off with everybody knowing their shit but it is all about how they are as people. Everybody can learn the technical part of the job. Show you the basics, give you some guidance, then you just need to be in the same submarine, breathing the same air for how many weeks...by the end you will know the technical side of things. The technical side grows over time. This is not necessarily true of people skills and having the type of personality that cooperates well with others. (Haapala 2017.)

If having people skills is vital to working in the industry as a monitor engineer, the question then becomes; is it possible to gain the skill set to understand and work with people and if so, how?

### **5.1.1 Developing a People Skill Set**

In order to form some semblance of answer as to whether or not one can develop a skill set for dealing with people, this segment will take a brief look at the description for three disciplines that might possibly aid in developing people skills.

### **5.1.2 Psychology**

According to Etymology Dictionary (Etymology Dictionary, 2017) the word psychology comes from the ancient Greek word “psykhe” meaning “breath, spirit, soul, unconscious” and the Greek suffix “logia” meaning “the study of”; Taken as a whole the word “psykhe-logia” means the “study of breath, spirit, and soul” (Etymology Dictionary, 2017). In modern context psychology is the “study of the mind, the conscious, and the unconscious”.

### **5.1.3 Psychoacoustics**

Psychoacoustics is a specific branch of study within the field of psychology. According to (Oxford Dictionary, 2017) psychoacoustics is the study of one’s perception of sound and its physiological effects. It should be noted that psychoacoustics is not limited to human subjects.

### **5.1.4 Conflict Resolution**

According to social and personality psychologist Dr. Donelson R. Forsyth (2009) “conflict resolution is define as conceptualized methods and processes involved in facilitating the peaceful ending of conflict and retribution” (Forsyth ,2009)

Without going into a deeper analysis of Dr. Forsyth’s techniques for conflict resolution it should be noted that Dr. Forsyth’s methods include the five ways in which individuals prefer to address conflict. They are as follows: Avoidance, Yielding, Competitive, Conciliation, and Cooperative.

## 5.2 Current Curriculum

As it currently stands much of the curriculum for acoustic studies as related to working in the live event industry as a sound technician is solely devoted to the study of physics in relationship to acoustics, sound technology, electronics or electricity; with perhaps a mentioning of psychoacoustics in passing, simply because the term contains the word “acoustics” in it.

During the course of being interviewed, the expert interviewees were asked if they thought people skills could be taught or if adding substantial amount of “psychology, psychoacoustics, and conflict resolution” courses to the curriculum would be advantageous to those seeking to work in the live event industry as sound technicians to develop people skills.

### 5.2.1 Contingent Answers from Interviewees

The answers that were given whether yes or no seemed to contingent on one thing, “personality”, as can be seen in the interview samplings below.

### 5.2.2 Martin Arnie Annables

**Question:** Do think that it might be advantageous to have such courses as psychology, conflict resolution?

**Answer:**

**\*ANSWERS ENTHUSIASTICALLY\*** “Definitely! Definitely! That should be part and parcel of the package. The end result you know!” (Annables, 2017)

**Contingent Statement:**

“So these days for large bands there two buses, three buses, ten buses depend on the size of the venue but if you all are on the same bus it, again this personal people skill, thing is a “KNOWING” just when to go, “I’m going to me bunk!”, close the curtains”(Annables, 2017)

### 5.2.3 Viljami “Viltsu” Haapala

**Question:** Should psychology and conflict resolution be part of the curriculum going into the sound industry?

**Answer:**

“ABSOLUTELY!” (Haapala, 2017)

**Contingent Statement/s:**

“It is mostly about the personality, especially on touring. It’s about how you cooperate with people, that’s the thing.” (Haapala, 2017)

“People of a certain type tend to gravitate towards this industry.” (Haapala, 2017)

### 5.2.4 Mika Laasonen

**Question:** Given the occupational stress encountered by monitor engineers should psychological training be part of the curriculum for those going into the field?

**Answer:**

“...For those coming into the field, yes of course.” (Laasonen, 2017)

**Contingent Statement/s:**

“But everyone goes through multiple filters.” (Laasonen, 2017)

“The only thing that actually matters when you come onto a team is whether or not you have “sisu”, whether you have true grit. True grit...it doesn’t matter if you don’t know anything about microphones, amps, or mixing consoles, that will sort come along automatically. If you don’t know you or you don’t have the attitude in a positive way...true grit...that’s it.” (Laasonen, 2017)

“Psychology will let you know there is a game afoot but it does not teach you how to play. More graphic image...you can read...look through porn magazine but you don’t learn how to \*\*\*\*\*!” (Laasonen, 2017)

### 5.2.5 Olavi Köykkä

**Question:** Do you think that having people skills is something that is teachable to a degree? Or do you think that it is more personality?

**Contingent Statement/s:**

Köykkä (2017) I don't know. I don't know...I think that it is more personality. I don't know. Well, people in this industry are already good with people. I don't know why but almost everyone is super nice people. Do you know somebody that's not nice?

I think that in this industry that everyone is good with people and you have to be, its long days...you know... (Köykkä, 2017.)

### 5.2.6 Jarkko Aaltonen

**Question:** Would having an understanding of the psychology of people help to develop people skills?

**Contingent Statement/s:**

Aaltonen (2017) Psychological studies will help you in certain situations. How you should treat people in certain situations. But they won't help you at all if you don't know what the situation is, if you don't have the skills to read the situation, or read the people; then the psychological studies, your pre-learned patterns can't help you.

I don't think that you can get the skills you need in that sense to be successful in the job. Those skills you don't learn. I think although to a certain point you can learn certain things, I think it is something that you are born with and you can either handle people or you can't. (Aaltonen, 2017.)

## 6 DISCUSSION

This dissertation began as a quest to learn as much as possible, about what it takes to become a world-class monitor engineer. I wanted to explore the possibility that monitor engineering may be in fact a more people based occupation than the profession is given credit for, I wanted to analyse some of the elements of occupational stress found to exist in the world of monitor engineering, and explore the idea of introducing extensive studies in psychology, psychoacoustics, and conflict resolution in order to create a foundation from which the occupational stress of working as a monitor engineer can be effectively managed. I have done so.

At the conclusion of many months of research and interviews I have ascertained that monitor engineering is undeniably, without question a people oriented occupation; in fact it can be estimated that interacting, dealing with people is anywhere from 80%-90% of the job. This statement is easily supported by the mere fact that some of the most devastating aspects of occupational stress in this industry revolves around people and not technology; being successful...surviving on a tour or a gig revolves around having people skills; whether or not you obtain work; whether or not you survive in the industry as a whole is directly related to your skill set at interacting with...people.

With that being said, the question now becomes “how does one obtain a skill set for interaction with people in order to work in the industry?” I originally speculated that adding a substantial amount of courses in psychology, psychoacoustics, and conflict resolution would help to create the people skills needed to work and live in the industry. This does not seem to be an accurate speculation on my part; in fact my perspective on this matter of adding psychology, psychoacoustics, and conflict resolution to the curriculum and why has altered significantly.

There is sufficient evidence to indicate that having a personality that is pre-dispositioned for working in this industry is actually the foundation from which to build a career and people skills as a sound technician...monitor engineer; not technical skills or courses in psychology, psychoacoustics, or conflict resolution.

A personality that is pre-dispositioned for working in this industry will most likely have “natural” people skills; skills that can be sharpen, build upon with a considerable amount of psychology, psychoacoustics, or conflict resolution courses; actual working in the field would bring a fluency to their people skill set; add on the technical skill set and that would make that person a valuable member to any crew.

A person that is “not” pre-dispositioned may grasp some things from the courses but would not have inclination to apply the knowledge correctly.

Lastly, there is one other aspect, an aspect that had not been considered at the beginning of this thesis that could be contemplated; and that is using psychology, psychoacoustics, or conflict resolution courses as a sort of filter to indicate who may have the personality to actually work in the field. As indicated previously, most entering this field solely focus on the technical aspects or the idea of it being a glamorous lifestyle, having courses in psychology, psychoacoustics, or conflict resolution that are taught by people working in the industry, thus stressing actual problematic situations found in the industry, would introduce prospective technicians and engineers to the human side of things. It would be an opportunity for them to get to know themselves and their natural capabilities for understanding and interacting with people. After all, if individual cannot grasp the studies or simulations in a classroom, there is little chance that they will respond correctly as a monitor tech that is being shouted at crudely on an actual gig to get the lead out of their arse and do something, in front of a live audience or be able to decipher whether or not it is time to call it quits and say “I’m going to me bunk”.

## REFERENCES

Aaltonen, J. Musician. 2017. Interview on 23.4.2017. Interviewer Grice, K. Tampere.

Allen, P. 2007. Artist Management for the Music Business. Burlington: Elsevier Inc.

American Heritage Dictionary. 2016. Online Edition. Houghton Mifflin Harcourt Incorporated. <https://www.ahdictionary.com/word/search.html?q=online>

Reference in text: (Andy Ebert, 2011).

List of references: F.O.H Online: People, Production, Gear, & Gigs 2011. From the Wall to the Monitors Hot Seat. Read on 7.7.2017. <http://www.fohonline.com/home/20-features/5126-from-the-wall-to-the-monitors-hot-seat.html>

Annables, A. M. Front of House Engineer. Monitor Engineer. 2017. Interview on 19.4.2017. Interviewer Grice, K Tampere.

Britton, M.L. 2015. Insomnia, anxiety, break-ups ... musicians on the dark side of touring. [Article]. Released on 25.6.2015. Updated on n.d. Read on 4.6.2017. <https://www.theguardian.com/music/2015/jun/25/musicians-touring-psychological-dangers-willis-earl-beal-kate-nash>

Brooks, D. Billboard Magazine. 2017. Live Nation Posts Sixth Consecutive Year of Record Growth. [Article]. Released on 23.2.2017. Updated on 23.2.2017. Read on 8.8.2017. <https://www.billboard.com/articles/business/7701939/live-nation-posts-sixth-consecutive-year-of-record-growth>

Boyle, Ng. L. Tippin, J. Amit Paul, A. & Rizzoa, M. 2008. Driver Performance in the Moments Surrounding a Microsleep. [Article]. Released on 1.3.2008. Updated on 19.1.2010. Read on 13.8.2017. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2808128/>

Cambridge Dictionary. 2017. Online edition. Cambridge University Press <https://dictionary.cambridge.org/>

Caruso, C. C 2013. Negative Impacts of Shiftwork and Long Work Hours. [Article]. Released on 18.6.2013. Update on 2014. Read on 13.8.2017. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4629843/>

Castelo, B. Alves-Perira, M. 2004. Vibroacoustic Disease. *Noise & Health-A bi-monthly Inter-disciplinary International Journal* 6 (23), 3–20.

Cooper, L.C. Wills, I D G. 1989. Popular Musicians under Pressure. *Psychology of Music* 17 (1), 22–36.

Etymology Dictionary. 2017. Online Edition. Douglas Harper. <https://www.etymonline.com/>

Eynde, van den, Fisher, A. & Sonn, C. 2016. Working in the Australian Entertainment Industry- Final Report. Melbourne: Victoria University.

The Financial Times. 2017. Music festivals go upscale and corporate. [Article]. Released n.d. Updated n.d. Read on 6.10.2017. <https://www.ft.com/content/3816796a-3178-11e6-ad39-3fee5ffe5b5b>

Forsyth, R.D. 2010. *Group Dynamics*. 5th edition. Belmont: Wadsworth Cengage Learning.

Gillespie, W. Myors. B. 2000. Personality of Rock Musicians. *Psychology of Music* 28 (2), 154–165

Gordon, S. *The Future of the Music Business: How to succeed with the new digital technologies-A guide for Artists and Entrepreneurs*. 4<sup>th</sup> edition. Milwaukee. Hal Leonard Books.

Haapala, V. V. Monitor Engineer. Front of House Engineer. Tour Manager. Production Manager. 2017. Interview on 24.5.2017. Interviewer Grice, K Tampere.

Horansky, TJ. 2017. Post-tour blues: On going home, anxiety and taking care of yourself. Released on 9.10.2017. Updated on n.d. Read on 31.10.2017. [https://www.altpress.com/features/entry/post\\_tour\\_blues\\_op\\_ed](https://www.altpress.com/features/entry/post_tour_blues_op_ed)

Horn, van. E. C. & Schaffner, A. H. Work in America: An Encyclopedia of History, Policy, and Society.1.

I.A.T.S.E.-The International Alliance of Theatrical Stage Employees 2017.

Read on 16.6.2017. <http://www.iatse.net/>

International Federation of Phonographic Industry. 2017. IFPI Global Music Report 2017. [Article]. Released on nd.4.2017. Updated n.d. Read on 9.6.2017. <http://www.ifpi.org/facts-and-stats.php>

International Labour Organization. 2016. Workplace stress: A collective challenge.

1st edition. Geneva: I.L.O publications. [http://www.ilo.org/wcmsp5/groups/public/---ed\\_protect/---protrav/---safework/documents/publication/wcms\\_466547.pdf](http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/publication/wcms_466547.pdf)

Köykkä, O. Systems Engineer. Monitor Engineer. 2017. Interview on 19.4.2017. Interviewer Grice, K Tampere.

Laad, M. 2010. The Study of the Effect of Constant Intensity Level Sound of Varying Frequencies on the Blood Pressure and the Heart Rate. International Journal of Pure and Applied Physics. 6 (3), 293-304.

Laasonen, Mika. Monitor Engineer. Front of House Engineer. 2017. Interview on 5.5.2017. Interviewer Grice, K Tampere

Lee, D. 2011. Networks, cultural capital and creative labour in the British independent television industry. Media, Culture & Society. 33,(4), 549-565.

Mantysalo, S. Vuori, J.1984. Effects of impulse noise and continuous steady state noise on hearing. British Journal of Industrial Medicine. 41, 122–132.

Martin, L. Jens, H.R. Gade, C. Anders, C.G. National Acoustical Society-ForumAcusticum. 2005. How did the ancient Roman Theatres sound?.[Article]. n.d. Read on 9.6.2017. [https://www.researchgate.net/publication/252721145\\_How\\_did\\_the\\_ancient\\_Roman\\_Theatres\\_sound](https://www.researchgate.net/publication/252721145_How_did_the_ancient_Roman_Theatres_sound)

Melé, D. N. 2009. The Practice of Networking: An Ethical Approach. Journal of Business Ethics. 90, 487–503.

Mercier, V. B. Hohmann, B. W. 2003. The sound exposure of the audience at a music festival. Noise & Health-A bi-monthly Inter-disciplinary International Journal 5 (19), 51–58.

Meymandi, A. 2009. Music, Medicine, Healing, and the Genome Project. [Article]. Released on n.d.9.2009. Updated on n.d. Read on 9.10.2017. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2766288/>

Merriam-Webster, 2017. Online edition. Merriam-Webster, Incorporated <https://www.merriam-webster.com/>

National Institute for Occupational Safety and Health (NIOSH). 2017. Noise And Hearing Loss Prevention. [Article]. Released n.d.. Updated on 12.7.2017. Read on 10.10.2017. <https://www.cdc.gov/niosh/topics/noise/default.html>

Pollstar Magazine. 14.7.2017. 2017 Mid-Year Special Features. [Article] Released on 14.7.2017. Updated on 14.7.2017. Read on 8.8.2017. <https://www.pollstar.com/article/2017-mid-year-special-features-132376>. [https://www.pollstar.com/Chart/2017/07/2017MidYearBusinessAnalysis\\_584.pdf](https://www.pollstar.com/Chart/2017/07/2017MidYearBusinessAnalysis_584.pdf)

Powell, J. 2016. Why You Love Music. From Mozart to Metallica-The Emotional Power of Beautiful Sounds. 1st edition. New York: Little, Brown, and Company.

Rainio, R. Lahelma, A. Äikäs, T. Lassfolk, K & Okkonen, J. 2013. Eneix, C. L. (ed.) 2014. Archaeoacoustics. Florida: The OTS Foundation Publication, 1-9.

Reznikoff, I. 2014. On the Sound Related to Painted Caves and Rocks. The Archaeological Society of Finland.

Reference in text: (Ryan George 2014)

List of references:

This Tour Life 2014. Quick tour tip: 2 valid passports. Yes it is possible. Read on 7.5.2017. <http://thistourlife.com/2passports/>

The mental health of tour life on and off the road. Read on 7.5.2017

<http://thistourlife.com/mental-health-tour/>

S.M.A- Stage Management Association. Stage Management: A Career Guide.2014.

Read on 8.19.2017

[https://www.stagemanagementassociation.co.uk/sites/stagemanagementassociation.co.uk/files/Update%20SMA%20Career%20Guide%202014\\_1.pdf](https://www.stagemanagementassociation.co.uk/sites/stagemanagementassociation.co.uk/files/Update%20SMA%20Career%20Guide%202014_1.pdf)

Reference in text: (Soundgirls, 2017).

List of references: Soundgirls.org. 2017. What does a sound engineer do? Read on 5.7.2015. <http://www.soundgirls.org/what-does-a-sound-engineer-do/>

Tronstad V, T. Gelderblom B,F. 2016. Sound Exposure during Outdoor Music Festivals. Noise Health 18 (83), 220–228.

Waddel, R. Billboard Magazine. 2016. How 'The Shared Live Experience' & Even Streaming Fueled the \$25 Billion Concert Biz. [Article]. Released on 13.12.2016. Updated on n.d. Read on 17.6.2017. <https://www.billboard.com/articles/events/year-in-music-2016/7616524/concert-touring-business-2016>

Wells, G B. DiPiro, T J. Schwinghammer L T. DiPiro, V C.2015. Pharmacotherapy Handbook. 9th edition. New York McGraw-Hill Education.

Workman, M. 2012. One for the Road- How to be a Tour Manager. Road Crew Books.

## APPENDICES

Appendix 1.

1(5)

Interview Systems & Monitor Engineer Olavi Köykkä, 19.4.2017

### **When did you start and how long have you been in the industry?**

I started 2005; I went to a work placement at Akun Tehdas for two months. And it was after some time, after that they have been calling me. It has been more or less 11 or 12 years. First two years on hands training but after that I worked as profession since 2007.

### **Why sound?**

Why not? I don't know. I play guitar myself, I've always been interested in electronic and stuff like that.

### **Being a musician does it give you an insight into working with a musician as a monitor engineer or front of house engineer?**

I'm not real musician. But...Yes of course. And, a lot of our colleagues are playing some instruments. I know just a couple of people who doesn't play anything. But most of us play or have played in a band or play some instrument; maybe earlier in school or something.

### **How would you describe it to someone who is not in the industry what is the difference between the front of house engineer and the monitor engineer?**

The front of house is doing one mix for the whole audience. The monitor engineer is maybe doing maybe ten mixes for less people. More mixes for less people. I don't know, I don't know...I'm not sure who to explain...to explaining these things to outsiders, it's not easy. It's not easy.

**Which do you prefer doing, FOH or MOE?**

I prefer doing monitors, because it's more technical and less artistic. I think this way. The front of house is a different mix.

**So would you say for example that FOH is mixing according to perhaps their own tastes and maybe a bit of the taste of the band they are working with would like?**

Yeah, yeah...yeah...but with monitors you are working with people, and you are trying to help them to play together; it's...now days it is even more technical side. It's more than mixing, it's also because now people are using IEM, they need a way to communicate because everyone is having headphones, and like with big shows there are distances between people. The physical distant between players in big shows is many meters and everybody is having headphones, so they need to communicate, they need talkback mics. It's MOE mixing but it is also making talkbacks. It is more than MOE mixing. Making sure that everything on stage; everything is okay. That's why I like it!

In the FOH it's all about mixing and how it sounds and I don't have the golden ear. I am better at getting stuff done.

**I have a theory and my theory is that “although MOE is highly technical \*yes...\* it has a human component \*yes\* though and that in order to be successful in the field in some ways you have to master it.” Example: For example dealing with a performer who is having a difficult day himself but then it sort of makes everyone else's world more complex or difficult. But you have to be as an engineer you have to be able to master or build bridges or smooth things in order for things to go smoothly or well.**

Yeah, that's what I'm talking about, it's not only about the mixing; that's only part of the job. It's also about dealing and working with people.

**So the level would be a good mix, being capable of handling the IEM and then the wireless. These would be the basics to be able to function as a good MOE on the technical side of things and then comes the underline, unseen thing of people skills?**

Yeah, that is one part of it...and that is really one of the big things. People skills

**Do you think that having people skills is something that is teachable to a degree? Or do you think that it is more personality?**

I don't know. I don't know...I think that it is more personality. I don't know. Well, people in this industry are already good with people. I don't know why but almost everyone is super nice people. Do you know somebody that's not nice?

Yeah...But I think that in this industry that everyone is good with people and you have to be, its long days...you know...

**Let's talk about the long days. As an intern I have experienced long days. How much to you think that for example that working swing shifts, sleep deprivation, for those of the crew that are constantly on tour, how much of this do you think effects their nature capabilities to deal with people, if they are good with people to start with. How much of the occupational stresses of that nature will affect them.**

Everyone has bad days. That's for sure, so if you have long days like on tour, people who have toured more can give a better or more right answer. I think that everybody has a bad day. If you haven't slept at all but as a monitor if you are having a bad day it shouldn't be the artist problem. So even if it is a bad day, it is a customer serves. You have to maintain a certain amount of professionalism.

If you are having a bad day it may be your own reason or like flight schedules it is like that that can be really silly, so you didn't sleep. It's okay to be tired but you don't have to be not nice! Yeah...you have to remember to smile and if you are on the stage and

4(5)

there is the band and everybody, nobody wants to see a sad face. Keep the magic going on; on the stage...Sleep later.

Or if you are touring with a band and you are in some venue where the local technical provide, everything you own you don't have your gear, you have wrong desk, wrong that and that, that happens, but that is what it is, but you can save the bad vibe for the technical company/tech provider it's not the bands problem.

**How much anxiety goes into things when you getting ready to step up to the console, the band are getting ready to come on; how much anxiety? We know that the performers feel anxiety just as they're step onto the stage? How much of it do you actually feel as a technical person, do you feel a certain amount of performance anxiety as far as being the technical person?**

I don't know. That's hard... I don't know. Let's do it! Feel a surge of energy

**You have worked festivals, you have worked T.V sets...If I'm not mistaken you have worked venues as a guest. Which would you say is more complicated?**

The T.V shows are more complicated, well...it's a...it's more everything...less time. No falling behind schedule. From a technical view it is more complicated! Its highly programmed. You need to program it more. There's like...to do MOE in the T.V show, many times you rehearse once then its live T.V show. I don't know, the schedule is pretty tight in the T.V show and you have a lot of everything going on. If you are with a band like in some Finnish club, it's like, if your touring with the band is like the same as yesterday, as the day before, as last week, it's the same. T.V show is like one option. It's one show and lot of everything but if you are touring with the band you have the same setup every day.

Festivals are more exciting. You have line check. You have band. There is no rehearsing. You check the lines and go. After the show, the band goes, you have no idea how

you did, and the band might go to the bus and say that it was a shitty sound or it might be good!

But for real the festivals, like all the Finnish bands, like 90% they have their own engineers. This is how it goes now days. All the international acts like the shows at festivals they have everything with them. All the Finnish bands, most of them have their own MOE. In festivals it's more like you are trying to manage with the space, know where you can put the console, where everybody can have their power; all the lines; it's more like managing the area. Providing what they need...less mixing all the time.

You might provide the console so the band has asked for some console, you have rented from somewhere and it is your job to provide the console, you should know how to connect it and get sound in and out.

The big festival just less mixing and a lot of everything else; it's all about getting the communication; you have to make the talkback work, its more about providing gear. If the band doesn't have everything they order wireless, console.

Big headliners have everything; they just need power and that's it...and P.A.

As a guest engineer you must contend with the sound equipment in that venue. Sometimes it requires you to cope with unfamiliar equipment, poorly maintained/broken equipment, or a lack of equipment; or you bring your own equipment when possible, that way you have what you need to do the job. The other aspect that must be contended with is the venue's acoustics, which vary from one venue to another.

Appendix 2.

1(6)

Interview Front of House & Monitor Engineer Martin Arnie Annables, 19.5.2017

**How did you get started in the business?**

Many! Many! Many! Many! years ago. I was in a band at school playing drums and unfortunately I was rubbish at playing drums and ended up in sound. That is the long and the short of it; straight to the point.

**Do you love what you do?**

Ninety-nine percent of the time, yes.

**And, the other ten percent of the time?**

No, cause generally it is politics. Oh, everybody likes to get into politics. Not politics as in what's going on in the world. But just within the group or the industry; which is why I don't tour much. \*laughs\*

**The aspect of having people skills, being about to read a situation; How important is that to your survival rate in this industry?**

Most of it...that is most of, the most important part of it, because you're dealing with people every day. From the musicians which are the strange ones, to anywhere from the local crew, and in house guys, if you're just doing an in house and you're using their equipment; it is best to get on their side straight away. Unfortunately not all people at the other or at my end are in the same boat, once again to the same level. It makes it very difficult.

**You've worked as F.O.H?**

Yes...

**You've worked as monitor engineer?**

Yes...

2(6)

**For those folks that are outside the industry what's the difference between the two?**

The quick and simple way of explaining it is when I am doing F.O.H, I am doing it for the audience; making that band sound right for the room and the audience; sometime a lot of audience, thousands and thousands of people. Sometimes not that many; we all know that there are different levels of this from small clubs, ports, bars, to arenas, then when you get to the U.S the big sheds, the big silly outdoor... lawn features. So basically F.O.H is for all them people paying for tickets...not paying for tickets...

And monitors are purely for the three, five people on stage. You are giving them what they want to hear to keep time; to play along with the other members...hopefully...\*lols\* it's not always the case.

So basically monitor engineer there for the musicians to make what they hear either through the old school monitors or these days it's all fancy in ears radios.

**So in the course of doing monitor engineer how important is it to have a good rapport with the band, to know exactly that okay so and so is not having a good day so this is going to be a rough gig, let's work through this, get through this. How important really is it to start have a good rapport with the band, especially if it's long term?**

If is long term, again that's most of the job. There's being able to read the band...if you say that somebody having a bad time. It could be several things...it could be you at you're not giving them exactly what they want, tours go out for a long time and sometimes they have personal problems. So that can affect; it's not necessarily you. But if they are having a bad day then it can affect the overall thing. I think definitely, again 90% with the band, having a good communication, and if there is a problem to be able to get over it without screaming and shouting because soon as people start screaming and shouting it touches everybody else and everybody else is in a bad mood, and soon they start screaming and shouting.

3(6)

**Then when you are on tour, living on a night-liner...?**

\*he fills in with \* in close proximity \*shakes head to indicate not good\*

**How does that play living in close proximity for months at a time, because in all honestly sometimes people can't live in close proximity with themselves for long periods of time?**

There was a gentleman I used to work for, that when I was working for the band we never had the same bus as the band; we always had a different one. So that the crew and band had separate buses and basically he said that you have to have two buses so that the band can bitch about the crew and the crew can bitch about the band. You can understand if you're all on the same bus and doing that it could get nasty!

So these days for large bands there two buses, three buses, ten buses depend on the size of the venue but if you all are on the same bus it, again this personal people skill, thing is a knowing just when to go, "I'm going to me bunk!", close the curtains. Cause the bunk when them curtains are close that is your personal space and nobody...

**Actually it's your only personal space besides the toilet?**

SA: Yeah, but again it gets pretty crowded when there are twelve people on the bus, in the toilet... So it's not really a personal space... \*lols\*

**So how is it working with for example with other techs in the field; for example, pyro tech or your riggers?**

Let me tell you one thing. The most important people on the tour is the catering crew; cause if you don't treat them nice you don't get fed! And you know people don't work when they are not fed; food and watered are the most human basics to start with. Most of the time you have to have the respect for everybody, for what they are doing, cause at the end of the day it is a very dangerous job.

4(6)

**It's like working on a construction site?**

Mmm...yeah! Every day! Lucky...touching wood...on the tours I've been on we've had very few incidents. Maybe broken fingers...nothing...

So the rigger is very important cause when you think how high they are up in the air and the amount of weight they are hanging from there and everybody is underneath it.

So...most of the time you get along with everybody; there's always the asshole.

There's always you have to really get along with most people. Sometimes you don't, but maybe that person isn't that important to you, to your job. So you just get on with it. Avoid.

**When it comes down to occupation stress what would you say would be the top five besides just dealing with people in general?**

A: Relationships. Being away from home, I mean not so much now, but back when I started you could be away for 18 months. And never come back to your home, lodgings, hotel room! There was a point back in the day where I knew people that just rented a hotel room when they came back. Cause they weren't back long enough ...what's the point in owning a house, paying rent on a flat...apartment...or whatever when you're never there. So basically they stuff use to stay at the PA Company's warehouse and just use to check everything else they own on tour and back. Clothes washed up in a few weeks, keep things going.

Relationship is one of the five. I'm not saying which one is worse because for different people it can be different things.

Stress? Time! Time is always an issue. The distance maybe, you have to travel from one show to another. If one particular crew takes longer on the loadout and then there is always the drive time you may not get to the next show till an hour late, two hours later and if that crew is no good, then there is stress, stress. And again at the end of the day safety is paramount! Rushing is not usually good; very sad environment.

5(6)

Maybe equipment, not working properly, or have a problem but again time. You can always try and find the problem. You think you found but then you find you haven't found it. It all comes down to time and not having a lot of time. It could be something stupid...one xlr lead, that's causing the problem and if you think about in a system how many of those there are. You can narrow it down...but at the end of the day it's still time.

These days they have set it up with cat5 connectors and they are not really meant for throw in cases and plugging in, plugging out and I don't they thought the whole thing through with a lot of that. But it's evolved from other things...computer. Ahh...

### **What about sleep deprivation?**

It's not really stressful it just you do it. You have to do it, you deal with it. Generally, when you've done a lot of days straight, when you get to your hotel room if you are lucky enough to have a hotel room, and that it's good night. It's a lot of catching up whether you ever do actually catch up, if it's biological, physically possible if you've lost all that.

**Music and the human interaction. It's s been scientifically proven that music actually affects us on a physical level. Whether we want to or not, it's DNA code for us to be affect by sound. Have you noticed anything of how music affects you, pulls emotion from you?**

Ahh...this is a big one. Yes, it does affect people, if it didn't else why would you go and listen to it. Me I'm sort of less affect by it I think now because of the amount of time I've been doing it. You sort of get not immune...

**Conditioned?**

Could be one way of putting it; doing something every day of your life, changes the way you look at things. So when I'm on tour, when I come home I very rarely listen to music. But that has probably only happened in the last 10 or 15 years. But I have a music collection to be reviled.

**It sounds as though being a sound person, or one of the technical people on the job for a concert or tour it's made you appreciate it even more the whole system of how things works?**

Yeah, cause I know most people that you see on the street have no idea. They have no clue of what it takes to put on a show or to produce the music originally back on the day.

**Most of the curriculum that is being introduced for sound, riggers, anybody else in the industry it's all technical work. Do think that it might be advantageous to have such courses as psychology, conflict resolution?**

**\*ANSWERS ENTHUSIASTICALLY\*** Definitely! Definitely! That should be part and parcel of the package. The end result you know! Again, as I've said the technical side of things isn't really that much of the percentage of the whole.

## Appendix 3.

1(14)

Interview Bassist for Korpiklaani Jarkko Aaltonen, 23.4.2017

**What is your educational background music wise?**

Musical wise, I have no musical educational, except what for what you learn in school. We did have...I have to admit we did have when we got to the high school; we did have a teacher that was actually really encouraging. And he really pointed... at that time already played a few years badly, and he did point people sort of a direction and showed things that you really didn't know or care because you were stuck into your "yeah...I'm going to be the next heavy metal superstar". Then this guy was pointing you to directions that there is other are ways of playing too.

**How did you end up playing in a band? Was it something that you wanted from the start?**

To be honest I don't even remember how that happened. Couple older friends where playing, had a guitar, had a bass, like the brothers. Then you sort of get your first touch on the instruments there. Try to learn something. I had a friend the same age as me but he had been playing for a couple of years longer. A really talented guitarist, he had already been in some band things with his older cousin. And then he just said that we need a bass player you wanna come and play bass with us?

I'm like I don't know how to play...I don't have a bass, I don't have an amp! Yeah...we have it all, we'll teach you.

**So you didn't choose the bass?**

No, no it was given to me. But then again once you learn you're first thing, you then realize that oh this is cool. Then you start listening to what other bass players are doing in other bands, you think oh this is actually REALLY cool! That it's not that bad to be a bass player in a band.

**So you didn't have any preference for guitar or bass?**

No. No. Not at the time. I was equally bad with both at that time.

**So, are you a people person?**

No, I am not a people person. I have my friends who I am close with but don't particularly like large crowds or meeting new people.

**Do you understand people?**

Yes, I do understand people!

**When you first started in the music industry, what was the business side of things like as a performer?**

PerFORMER...\*chuckles\* When I actually first entered into the "real" industry was only like a bit over 10 years ago. Korpiklaani was the first band that you can call really professional that we have played in. I have played in bands way earlier that got paid for their shows but it was not that much. I wouldn't call it being in the industry, it was just a hobby that would get you a few markat.

**So, the past ten years what has it been like dealing with the business side of things?**

The more you know, the more you learn to hate it. You realize that it is just as bad as you have always heard and it's not getting any better. The business is changing fast but like in any business the old major companies are still clinging on to their old business models, that is trying to hold on to their revenue whatever the cost, which means offering worse, worse, and worse deals for the new bands and that kind of stuff. Luckily we are not a young...starting band, we know something about the business so we can't be fooled into anything stupid now. But I feel really about some other bands cause I know the kind of offers they are getting now days, if they even end up signed to a label; which I don't really think they should any more.

**Given the digital age now days?**

Yeah...the digital age has removed...\*first clears throat in a humorous way\* first of all I would like to point out that I hate the fact that people talk about “the files” being digital...cd is digital format...but...\*in a humorous tone\* any HOO...

We are signed on a major label and I have found it really hard to understand why the fuck is there at distributor...why do we pay for a distributor when it comes to the digital files, you get your stuff on iTunes...on Spotify or any of the other download services or streaming services and there’s the share that you get from the revenue, there is the share that the your label gets from the revenue, but then again there is also on top of all that, there is the distributor cost. Why the fuck is there a distributor? The distributor is owned by the record label. They are after their money. Any band can get their stuff on ...make a deal with iTunes and get their stuff streamed. A distributor does nothing but proved a set of file and that is it and for that they get 18% of your income.

**Would you say that record companies...the business entities cause a lot unnecessary financial stress and problems?**

I wouldn’t put it “that” way because in some cases I do have to admit that the record labels have...like if you have a record label that is really pushing your band, does the promotion and really works for you, then of course record labels should get paid, like everyone should get paid for their work. If the business is now like it is, in that the record label’s idea of promotion is that they ask are you to make a video where you talk about new album, then you make the video, you film the video, you edit the video, and then you send the video to the record label, and you do whatever else, then they post it to YouTube. And this is what they call themselves as like; this is where they say that they have done some promotion now. But then again, we are a small band on a major label so maybe it’s a different thing with others.

I do know for example because that we have been under a contract for the past 14 or 15 years to a record label, two different labels, we have actually seen

how the contracts have changed during the whole era of the digital revolution in the music business. The first contract was around 2002 or 2003 and it has no mention of digital stuff. There you have the clauses like for everything else. The royalty rates for everything else are defined rather clearly but then again there is just the quote everything else is 50/50. This is where you get the 50/50 split when normally you have something between 15%-25%. So for example, the old catalog being available on digital, we have been getting 50/50.

And then the next deal we had was with a different label. The digital sales were a minor thing, so we had the same thing...the physical sales something like 18% royalty rate and the digital was 50/50. Then that contract runs out and you get the next contract draft then suddenly there is no mention of any separate digital rate. It just says digital as physical. So they tried to lower our rate from 50% to 18% because the sales were moving to digital. It is easy to offer 50% of 5%, which was the old amount of digital sales; easy to offer that.

But then during that contract period business changed. It quickly turned from 80/20 split, 80 physical...20 digital in two years to the opposite, to 20 physical, 80 digital. And so suddenly the record labels are like..."Oh" we can't give 50% of this "money"! So they offered the deal in the reverse, which of course we didn't agree with it. So the question became like...we have been with you now for four albums and you are offering us a new contract that is "worse" than the previous one

We have been generating money for you, since you have you have been paying us royalties, it tells that you have received yours and more! So...how do you dare to offer us a worse contract? And then we got back to what it was in the new contract 50/50 split.

But I know this history...the development of these things. New bands signing now don't know this. They will probably be happy that they are getting maybe say not so low physical royalty rate but maybe they get say 20% royalty rate on "everything" and they don't even realize that the others..."the old school bands" are getting 50% on the digital. It is a matter of knowing the history and where it comes from but of course

whenever you are making a contract you should hire a lawyer who actually knows the business and not just sign anything that is offered to you.

**So outside of the industry, looking at a different side of the industry; what is it like for you as a musician, in a musician's environment? Living within this particular subculture?**

It is a really, really cool place to be; because it is ...I wouldn't want...I don't want to use the word family because it is really, really gay. But it has this feeling of that you are being supported, like by your colleagues, as if you were family. In many cases it is a very close knit, company of people. People don't necessarily, even know you all that well and they don't tend to like your band, like your music, and still whenever there is someone in need or whatever going on, there is always the support.

And then on the other hand people, you find friends from there that are very unlikely friends if you will. You just meet people you would not have met otherwise. You meet people at festivals, you end up having a few drinks with someone, you go with him cause some of his friends are having a drink somewhere else, someone knows someone...knows someone...in the end you end up with people you have never met before, you end up having the greatest time of your life, and you make new friends. And you don't meet that often, you meet twice a year, and still you have this same thing, you continue from the last time you met.

**It sounds as though you cherish that?**

I DO. I really do appreciate it; \*laughs...\* which doesn't go well with what I first said earlier in not liking people.

**Perhaps, it does? In the sense that it is select, that it is a subculture within itself? That not everybody can enter?**

Yeah, that is true BUT...it's not that...because anyone could enter. That's the funny part, no one is left out. But just it is a weird thing. I really find it funny, that what I like in the music business is, that we have really good friends in different bands. Musically

very different, completely different styles and probably like everybody hate everyone else music but still you have this understanding that you are not that far away. And that basically that your influences are the same, where you grew up...you come from the same kinds of backgrounds, and you have all this that is common but at some point something went in a different direction. And musically in your 40's you're completely different but still you have this weird connection with these people.

What I find really funny...as I said that it is a close knitted company. Especially here in Finland what I find is really cool, is that the bands that we have worked there is no animosity of any kind towards one another. For some reason, I guess things are different in other countries that we have been touring.

You find this huge...I do understand that the bands do compete with each other but the competition doesn't mean that you have to start hating, being cut-throat, slagging off bands. I find it funny especially in the genre that we work in; you have fans are putting bands into these boxes; fans are even sort of fighting over which one is the best of these.

And, then what really bothers them and messes up with these people is..."they see that...wait a minute...now all these guys are all on stage together...what the fuck are they doing? Why the fuck is that guy from that band playing with them? What is wrong with this? How can he do that? His band is so much better than the band he is playing with now on stage? They don't get this thing that we don't really care. That it is the company of good friends; they don't see the world beyond the stage.

**Would you say the closeness, the way things are here in Finland are due to the cultural background, as oppose to say for example American culture which is very competitive?**

If you think about Finnish culture in general, I would say that this is most competitive nation in the world. We have a competition for "everything"!

**Seriously..?**

Yes! Like for example, right now going on there is the world championship tournament of “beer-pong” in Hervanta!

**What the fuck is beer-pong?**

You know the... \*demonstrates\* ...

**Got it! Seriously?**

Yes!

Then there is the wife carrying! If you can think about it we have a competition for it!  
So that is not the thing.

**So it is not really about competition then? Competition in the Americas is very cut-throat.**

There is competition in Finland as well but here it's a fair game. Here the only thing that you do is that you try and make yourself better. You don't try and make others look bad. You don't undercut others. I remember these things from various festivals, when sometimes you're the smaller band at the festival and you end up working with bands that are way bigger than you. And the only bands that have been really, really big assholes, difficult, and annoying...not just for the other bands but for the festival promoters as well have been American bands.

But then again, you meet the band and the band as no idea what is going on there on the stage. But they have the crew that is acting as the biggest rock stars in the industry. And you have things like for example ...I will not say any names but I remember when we played the Masters of Rock festival and the heading band was some has been from the U.S.A that hasn't released any albums in like ten years. Anyway, when we were trying to set up there were basically these huge amount of cases; big, small cases, all covered by this really ugly fuck tarp thing! Way before our change over time, we said that those have to be gone; they can't be there during our fucking set. In the end, the result is that the festival actual promotor we know comes to talk to us and says “sorry

guys they will be there, they are an essential part of this band's set, they need to be there, and they cannot go anywhere, they have already set up before anyone else and that is it." They end up being there for every other fucking band! And when their show starts they are just rolled off like empty fucking cabinet cases, just like that. Just rolled off the stage; this is just an example of how some bands behave. Their idea of competition includes making others look worse than they really are! Not just trying to good as possible on your own. Sabotage others.

**Let's talk about you as a musician. What kind of gear are you using these days?**

It is a very simple set up; a bass guitar...B.C Rich Eagles, wireless unit and a pre-amp directly in line.

**It sounds as though you understand a bit of the technical side of things. When it comes to the technical, your gear, the maintenance, how much do you know?**

When it comes to my own gear that I use, I know everything about it. I never let anyone else touch my rack except for the crew to connect it. I never let anyone build my stuff. I never let anyone do anything. When we are touring, doing festivals I don't care. It's just when it comes to fixing stuff, building my rack I do it myself.

**Is that to know exactly what is going on in terms of your gear?**

I have the control and I know what condition the gear is in; if something breaks I have the understanding what could be the problem and how to fix it. When we are touring and doing festival I have two identical basses...or at least as identical as two handmade basses from forty years ago can be; two identical wireless units, two identical pre-amps; basically two of everything.

**I.E.M...?**

No, I am still using wedges. I don't have the I.E.M system.

**What do you prefer in your monitors?**

Well, it is easier now a day since everyone else in the band has gone to I.E.M. Yes, we started very early with the drummer going to I.E.M. Then we got the violinist and accordionist going to I.E.M; and then the vocalist...then the guitarist was the last one to go. Now I am the only one doing the wedges and I am very happy with this set up. On stage I can have just the guitar, drums, and bass combo in wedges; me being rather loud on stage. And then everything else vocals, accordion, violin just so I can barely hear them. So I know where we are going, what they are doing. But I don't want them to dominate, over flow the sound. In most cases I hear them loud enough from the P.A.

**It's my understanding that your manager is your sound guy. How does that actually work with your performance? Is there a certain amount of trust automatically or has it been built over time?**

Yes, he does the F.O.H. Why the fuck would I worry that; if I start worrying about everything that is going to be a rather terrible situation. You "have to trust" some people. And we have had him doing sound for how many years. When we changed the sound guy, the first thing we heard from the people was, "God! You sounded good this time!" And, I know that I've heard him do other bands, and I know that he does a good job. I like how he makes other bands sound.

But then again people may have a different view of how things should sound. It is not about being technically incompetent.

**Have you worked with monitor engineers before?**

Of course, we have had a monitor engineer.

**What is the relationship like between you and the monitor engineer?**

Usually, when we are on tours, we are technically self-sufficient. In the sense that we have our own desks \*F.O.H & Monitor\* and we just plug into the venue system. We start with the same set up as the previous day. Then usually when we are on tours we

don't do that much the soundcheck or monitor checks. Maybe one or two checks at the beginning, but then we don't do checks because then whatever you have to adjust you can adjust in the first song or two. Festivals are different because you don't have your own stuff but then again in most cases you have digital anyway. You can upload your stuff to their system and the basic setup is still there. But of course in a festival setting everything is much louder.

Because it is a gigantic open space, \*laughs\* and your drum kit is ten meters behind you!

**As a performer how vulnerable would you say a performer is emotionally or psychological when they are performing?**

Some people more than the others. It is a very personal thing. For example, I am not that much for example since you learn to cope with things or you don't. I can get a decent...it is a bit difficult to say.

For example, "having butterflies" right before a performance can be good, because it means that you are alert, sharp and you care about your performance. Once the show starts, at some point during the first song the butterflies melt away, you relax and continue to perform.

I know that some people are really...their performance...how good it is... relies very heavily on the audience.

It's because the performer and the audience are feeding off each other and when...if they don't get that connection early in the show... basically with their first step on stage they really lose that...

...what the fuck is the word...? This level of their...what the fuck is the word?

**Confidence...?**

Confidence is one word. Well, I'll use confidence. The level of confidence really drops! You are really hyped up! You hear the audience roaring and you step on stage and the first thing that you do is, you fucking forget the first word of the first verse. Or you realize that the monitors for some reason suck...or the first song starts and the only

thing that you hear is the fucking snare! You realize you can't do it like this but you know that you have to start anyway, while you are trying to win the audience over, at the same time you have to try and tell the fucking monitor dude that hey everything sucks here...DO SOMETHING!!!

Sometimes it is really hard to build yourself from that, because it takes people into pieces, it shatters you. It is really difficult to gather yourself from a horrendous beginning! I on the other hand, this is one of the reasons why I don't want to be on I.E.M. What do you do when you don't hear anything? You just don't hear anything! On the stage if I don't hear anything, I can at least move closer to the fucking drum set so I can hear them. And the songs I can deal with, if I can hear the beat. I can sort of know where we are. But good monitoring is very important for a show to be good from the beginning.

### **How so..?**

Exactly for that's the reason. Good monitor engineering is highly critical to a show being good from the beginning; if the first thing that you have to do on stage is that you have to start sorting out the monitor problems, then the day is basically ruined from that point if things are not fixed quickly. If you have to spend the whole fucking show asking for this or that from the monitors it is not going to work.

### **...If the problem isn't sorted out right away?**

Correct...

**I know what it feels like to be in the audience. When you hear the intro music, the build, at that moment I close my eyes...its YES...things start to unfold.**

Yeah, but you also have to try see how the band sees those things. When you are in the audience you have been preparing for that moment when you bought your ticket already two months ago, then you have been making plans with your friends to go to that place, you get to the venue, you watch the opening band, and then you are waiting for the headliner, the anticipation is growing, the lights go down, and you realize that

12(14)

now it starts, you get the intro, and then the band gets on stage, and that's the moment where everything has to exploded!!!

That's the moment when you either win or lose the show. That's the moment where you can create an anti fucking climax for the audience. Everything is building up and when the band gets on stage you have to come up with something that keeps building up and not start going downwards; and, if the first thing you have to start doing is fixing things, you are NOT off to a good start!

**What is it like for you?**

It is a difference. As sad as it is, some parts of the show become routine. It could be a once in a lifetime experience for someone in the audience but for the band it is different.

**Is there a moment where sometimes the music sweeps you up? No matter how many times you've have played the music?**

\*gives a genuine, warm smile\* Yes, there are always times...uplifting moments when everything clicks...your bands...the audience.

**In this industry for you as a musician what do you see as occupational stress?**

In the stress sense, it is like any work. It's the same as any work because in every job there are things that you like and things that you don't like. In most jobs you cannot postpone things indefinitely. In the music industry you cannot postpone things indefinitely either. You can postpone things to a certain amount but not indefinitely.

But the problem is that the things that you don't want to do start to piling up. That is for me the stuff that causes the most stress. There are things that I don't want to touch because it requires thinking, requires decision making, and requires telling other people things that they probably don't want to hear. You postpone things and only do

these things when you really, really have to do them. This causes me stress, the things that are not done.

**Some of the things that I have read in the research that I am doing, some of the occupational stresses are sleep deprivation, time management, relationships, trust, financial difficulties and substance abuse. What do you think?**

How do those differ from any other job? The only difference is that in the music business the substance abuse is one of the things that is allowed to a certain point, unlike a normal day job. The people would probably say something way earlier if it was a day job.

Many times your substance abuse is allowed up until you start fucking up your job. But even THAT is allowed to a certain level. Other than that I don't see that much difference to other jobs, same kind of problems...same kind of demands.

The work schedules are different but again it doesn't matter. Think about the standard touring band who tours half the year, then doesn't tour the rest of the year. It just means that your free time, your time with your family comes at different times.

**At the beginning of this you said that you don't like people but you understand them. How important is it to have people skills?**

You end up spending lots of time in close spaces with twenty people. You have to start understanding people. You have to understand when someone needs space, when some people want to talk. You have to start acknowledging other people; you can't act as though you are alone.

**Would having an understanding of the psychology of people help to develop people skills?**

Psychological studies will help you in certain situations. How you should treat people in certain situations. But they won't help you at all if you don't know what the situation is, if you don't have the skills to read the situation, or read the people; then the psychological studies, your pre-learned patterns can't help you.

I don't think that you can get the skills you need in that sense to be successful in the job. Those skills you don't learn. I think although to a certain point you can learn certain things, I think it is something that you are born with and you can either handle people or you can't.

Interview Monitor & Front of House Engineer Mika Laasonen, 5.5.2017

**How long have you been in the business?**

I have been in the business for 38 years professionally.

**How did you get started in the industry?**

First I was a musician, playing drums for a living since I was twelve years old. One thing led to another. We always owned our own gear and transport. We did a shit load of gigs during the late 70's, early 80's. So all that gear started to pile up, of course somebody had to take care of all that gear. There was no front of the house guys here in Finland at the time except for the really, really big bands. So I started to sort of use our own sound guy which wasn't me but then I transferred into the sound engineer thing, because it was interesting and a lot of fun. Plus I always thought that all the bands sounded like shit and somebody had to try and do something! \*laughs\*

All the gear we had, we use to build ourselves. There was no sort of real professional factories in Finland that made sound equipment. So everybody made their own gear, just sort got information wherever you could, so it was trial and error...move on since you've you would blow.

**So you have a background in electronics?**

Yes, electronics...that is my real profession.

**So it was actually pretty seamless in going from being a musician, to maintaining the gear, to putting it together, to sound engineer?**

Yep! Real old school shit. We use to build speakers out of anything we could get our hands on! Tube radios...use to build pre-amps from tube radios...that sort of thing.

**How would you describe yourself personality wise?**

\*laughs aloud...\* Different...

**Are you a people person?**

No... Not exactly...I pretty much tend to keep it to myself. I am more of an observer than a people person. This doesn't apply to everyone. I am not very good at sort of making new friends. The friends I have now sort of...someone always have to surprise me because I don't really pay attention anymore. I know hundreds...thousands of people that I've worked with, it is unbelievable how many people you know actually working in this business. But true friends they are sort of really rare and then they are all the people that really count to me.

**Would you say that you understand people even though you're not really a people person?**

Yeah...I've been watching assholes for 38 years and getting paid for it. So yeah, I have a good understanding of people.

**You have worked monitor engineer and you have worked F.O.H, for those people outside of the industry how would you describe the two?**

\*growls or groans quietly\* ...To a total civilian..?

**Yes...! To somebody who has no clue other than there is music coming from the stage.**

I wouldn't describe it in any way. I would be wasting my time. It doesn't matter what I tell them, they don't get it, so why waste time on trying to explain it. It's a job. I'm not

going ask a plumber what they are doing, I pay them...the job gets done...okay... I'm happy.

It's sort of like if someone would try and explain to me how to drive the space shuttle...someone would stand there in a funny suit...talk... it would go in one ear and out the other. I wouldn't get it...it would be a waste of time.

**Has anybody on one of your jobs ever asked you what you are doing?**

Yeah, plenty of times, I always say something different because I would be wasting my time explaining to them exactly what I am doing. Why... do... they... care? Why would they care? They always say that it is common courtesy...good manners to ask okay how is this or that? Honestly...I don't give a shit about that or anything else. I am there for one thing and one thing only; that is to make things sound great. I come with my friends we set up the shit, large screen...handle things for an hour or two...take the shit down...pack up...and go. That's it. We get paid. The end of the day; it's a job; it's not a sort of adventure or a fucking wonderland. \*laughs\*

**Which do you prefer to do...F.O.H or monitoring?**

Actually, I have been sort of turning towards the monitor thing more because it is more interesting. When you are working F.O.H and let's say there is a crowd of 20,000 people and there's sort of only one end user in the whole room and that is what you set yourself. Nobody else understands dick about it, nothing...zero! So there is only one guy that you are working for, that you have to please and that is yourself. The monitor thing you maybe have six or seven musicians that you are busy all the time making happy. That is hard...that's REALLY hard! Maybe that is why I like it...it's the hardest thing. The F.O.H...especially when outside, they are always fucked! The first breeze, wind they are fucked! And then you have two hundred people saying that it sounds like shit! No shit! Well...Please stop the wind!

**For the position of monitor engineer how important is it to have people skills?**

That is important! First of all you have to look like you didn't get the job that morning. You have to know your shit! You have to have experience. When the band is going to doing a monitor check and they don't have their own monitor engineer, you have to gain trust in a matter of five seconds. You have to show them that without a doubt here is a person that really knows what is going to happen next; the band is edgy, nervous at the time, you have to break the ice...there is no hurry. At least on my stage nobody is yelling, running, everything is on the up and up, which adds to their comfort factor. I always tell them the moment that you see me running that is the time to worry, that it's time get the fuck out of there! Other than that it is always OKAY! It doesn't matter the water, the rain or the storm, if I am not running, we are OKAY! We know what is going to happen next...everything is okay!

**So is it a combination of people skills and problem solving skills that are needed up front for this job?**

Yes, people have a habit now days to create new, interesting problems for basically really good solutions! We already have the solutions but people now days tend to have really good skills to create new problems to preferable good solutions. Well...it's partly because they are uncertain of themselves. A little bit edgy, they come to a new place, their first ever gig at a large festival; and they sort of don't know what is going on even though they have heard all the war stories before. But actually when you get there the first time and you see the stage, then you realize...okay...so this is the battleship Galactica now and we have been in sort of a teeny, tiny pod somewhere, hovering in space.

People tend to sort of create problems through their own uncertainty of things if they are not sort of at home. Especially with young people now days, they are different than us, different from us. They are much wiser in a way than us technical and musical wise but experience wise it is a whole different ball game. But technically...musically...their

skills are unbelievable now days. So...most of my job is to sort of to get them to calm down...set in and poof! No problems! The gear doesn't matter...the microphones...the lighting...it actually doesn't matter at all! It helps to sort of have top notch equipment! But it doesn't matter if you can't manage people! If you can't read a situation!

**So do you have to know yourself then?**

If you lie to yourself in life...in generally, then you're sort of really loss! If you lie to yourself general, you will lie when you get in front of a console. You will lie to the customer, the person who pays you. If something goes wrong, something happens a pro will take the responsibility! Here I am! That was my fault! You can't hide behind anybody's back! We are not there to fuck around, we are paid to get things right the first time around.

Responsibility...means that there is no such thing as somethings breaks down and you can't do!

**What is your relationship with people from other crews \*riggers, lighting, video...etc.\*?**

Well, everybody has to know a bit about everything, at least us old geezers. We had to do everything...we sort of created it what is going on now days. We had to sort find that shit out by ourselves, endless trying and fucking up! Boot camp! 27...28 years of boot camp! We had to do everything by ourselves and you know in the process we sort of created the standards that apply to today. I don't know about tomorrow, I won't be here when the next sort new revolution comes.

It doesn't matter if you are a sound guy, lighting guy, a rigger...you have to be safe! You have to watch everything all the time, everybody. If there is even the slightest possibility of something going wrong, you have to stop everything! If anyone yells stop! That means everyone stops! Everyone stops! Because something is going to happen maybe and then we have to sort it out, find out what is going wrong. It is all about

safety! I don't want to die there in a fucking mud hole in Pohjanmaa with a rig dropping on my head! I'm too young for that!

**I once heard a set...a festival stage being described as an active construction site. How accurate is that description?**

Yeah! An active cluster-fuck would be more accurate but..! It is a living thing so to speak! All that shit happens at the same time. So...it's sort of blocks you know...first the stage...lighting...then the sound guys...blah...blah...blah. But everybody has to watch everything.

**So it isn't like the cooperate world where everybody has their own box?**

Well, we have the boxes but we have to look over in the other guy's box too because something might be happening behind their back.

**We have talked about working with a band that is edgy and the things that you do to soothe the situation enough, to get them on the stage. How is it working with the manager of the band, as sometimes it is the managers that are the difficult ones?**

I don't care! They mean nothing to me. They do not exist! There are no managers in Finland, there are just some old fans that sort have sucked their way into the most up and rocking...rap...whatever up and coming group. Of course performers they're lazy, they always like to have people running around doing shit for them. But they have nothing to do with real management there is no real management in Finland. At least the way I see it. No professionals, just somebody's buddy doing something...some sort of odd job. Okay...selling gigs...you are not a booking agent, you are a manager automatically. If I have a problem with sort of crew or anything I always call the booking agent..."hello...what is what?" We are sort of on the same level.

Of course tour managers and products managers are different. They use to be us! They are professional! But talent management...artist management...

**So many of the tour managers, production managers are actually tech guys?**

Yes, and that is a good thing! Because you would get things like, you go to a festival in a mud hole somewhere, you usually meet the stage manager...who is the most important person at a festival; but because it sounds so great, a great title, the problem tended to be that was some promotor's drinking buddy whose looking to get laid...free booze or something, who is always in our way...not doing the work...fucking things up; now days we only deal with professionals. But you still run into them every now and then.

**What about dealing with bands that are coming from the outside of the Finland, having to deal with totally different cultures... perhaps different expectations?**

Actually it doesn't matter all that much. That is sort of minor in the way of something like that of a mosquito because the set is there. Here in Finland we are so... sort of to the letter, we actually read the technical rides, so if the band needs something we get it there. So everything is usually ninety-nine percent up and up when the band shows up! The problem is that if you read those rides...okay the F.O.H console must be blah, blah, blah... monitor console must be blah, blah, blah; sometimes you go through a lot of trouble finding them sometimes. Maybe they are consoles that don't exist in Finland. We are all practical guys...but okay we try and get them. After a long, long battle we might get an okay rent from Norway, Denmark, or Germany.

We set it up, then the guy comes in says,

“What the fuck is that?”

You say, “That is your monitor console.”

“I've never seen one of those before!”

“It's written down here in black and white! Your name! Check it out!”

“That must be somebody else's ride!”

We take things literally but that is the only way to operate! You ask for this...we give you that! You have never seen that sort of console...you have twenty minutes to learn!

We do our job really well planetary wise.

\*laughs\* this reminds me...

A couple of years back at the Tuska festival, some American metal band who I've never heard; some big name that has been at it for thousand years. We do not connect electrical plugs ever again anywhere in Finland; it's their job if they bring in gear that is not ours they have to plug in themselves. I am at the monitor console doing the monitor files and I hear this fucking explosion five meters away. BOOM! The guitar tech for the band and the lead guitarist are standing behind the Marshall stacks with black faces and smoking Marshall Amplifier and an I.E.M system that they blew up. Every outlet in the backline power is marked. The backline is 230 voltages; well if you stick the wrong thing into it "KABOOM" you go! They were really pissed about it but we didn't plug your shit in you did!

By the way we had to pay for it! They didn't take responsibility!

But you HAVE to take responsibility for your actions!

Well, its sort...you have to find out what is wrong...you are going to get busted anyway! So why not just say, "It was me." and move on!

But it is different I trust my crew, each and every one of them from the beginning. I trust my crew, they are always on the level, and they are always honest. We have educated them along the way! All the new guys that come in, they don't know it themselves but they get sucked into this sort of crucifying machine. You have to take responsibility of your own actions; it is the only way to get and stay safe on the road. Your life might actually depend on this!

And those that don't get it fall on the wayside. The ranks close to them.

**Does having to trust people at this depth develop a certain type of closeness?**

Yes. Hell yeah!

**Would you say that it is similar to people that are going into the combat?**

Without the horror part; you know the flying heads and legs. Yeah, that may be but I'm not sure cause I don't pay that much attention to it anymore because I automatically trust that anybody coming to crew has done this shit before. Inevitably, he or she has had to have been in some sort of contact with some of us, work somewhere else to get a bit of the crucifying thing, no bullshit, no lies, only the truth about what happens.

Notice that I haven't said one thing about equipment. Almost an hour about camaraderie and such things, the only thing that matters; fuck the speakers and the amps! You can get new ones from the shop! You can NEVER get a new human being!

**How about having to deal with egoistical individuals; especially with the new guys?**

Egos go away really fast when festival season starts. The young think...

"Okay I have to stay twelve weeks cooped up with these old geezers...I have to survive here. What do I do?"

Pretty soon they find out what NOT to do! But even at that point they have already gone through a filter...actually multiple filters. Everybody is CHECKED; filtered without knowing.

The only thing that actually matters when you come onto a team is whether or not you have "sisu", whether you have true grit. True grit...it doesn't matter if you don't know anything about microphones, amps, or mixing consoles, that will sort come along automatically. If you don't know you or you don't have the attitude in a positive way...true grit...that's it. Of course you have to have some basic stuff but that is something that you practice at the junior leagues. Working on crews are the major leagues. You never...ever...give up! No matter what! Never!!!

It's becoming professionals instead of being single wizards.

**When I say the words, travel, swing shift, sleep deprivation what comes to mind?**

I have a story about sleep deprivation. A few years back on a festival Olli and I had this really young crew, Matti...Saku...they were really young back then; their first time as I recall. Olli and I woke up Friday morning, well to weather, electricity...between Friday and Saturday; Saturday and Sunday we really didn't sleep at all. I think it was ah...71 hour day. It went well. When we started packing the trucks we started to notice...okay we can't get this shit to fit because we had more gear heading out than we had coming in, because somebody had order a bunch of additional shit. Nothing we were supposed to have. Everybody was dead tired; it had been raining for four days and was something like 8 in the morning. The Lithuanian stage crew started to sort of lean on us because they had to get to Ruisrock as fast as possible! We were really fucked! All the youngsters...I went to the trailer and there was this guy keeping a case by the wall and talking to it. A couple of the others were just walking around aimlessly because they were all SO DEAD TIRED! I looked at Olli... okay...what are we going to do now? We put the whole crew to bed told the Lithuanian crew to fuck off! Then took the small truck from the other stage only to find out that it was packed on the floor, not the way it should be packed! Okay...we emptied it and repacked all the shit, including the extra shit drove to Tampere. We drove to Akun Tehdas and unload the shit. Okay...we have 15 minutes spar time...what do we do? Let's go up to the sound department and let's try to sleep a little bit. After 15 minutes..."are you awake? Yes...what are we going to do? Let's go back there!" We did two trips back and forth...a 71 hour day.

I am sort of happy that it doesn't have anymore. It was a really bad year; had on 71 hour day and two 52 hour days. It was really bad. lol...we were really fucked when we got back late August.

Sleep deprivation of that level is enough to alter anyone's personality for a moment?

Yeah...but that is when the true grit comes out. Okay...actually we don't expect...actually I don't expect that kind of level from anybody. The younger people are wiser than we are, but you have to do some sort of things. Cause everything

depends on everything. We fuck up the load in...load out thing and maybe two days later elsewhere, across the country and somebody else is going to pay for it.

An hour...maybe two hours for the whole system from the start; I have tried to persuade them for a long time to get them to pay us more for the invisible that work we do.  
Sleep deprivation...Yes!

**What about the traveling? I know for example with myself...after a couple of months on the internship, every weekend I am going. I come back on Monday morning. The one weekend I get off, the first day it is fine...the next day I'm twiddling my thumbs...the next day...it's oh fuck!**

\*said with a quiet, knowing smile\* Yeah...It's REALLY ADDICTIVE!

But it is not as much like when you're in band work...working for a band. It's more...  
It's harder.

**How so...?**

Well, when you have a shit load of gear, you go for a festival, you set it up, you are there for four days, you load it out, and then you come home. When you are working for a touring band you change venues every day and you still might have the semi-trail full of shit to load. It's a lot harder...

**Well, on tour you're living in close quarters, I would imagine you sort of have to get comfortable if the personality chemistry works?**

It HAS TO WORK! If it doesn't the bus stops! If the bus stops, then somebody is getting thrown OFF and we go on! I have done that twice to a guy! Once in Lapland..."just stop the bus, get the fuck off now! It's raining...! Get the fuck off!"

**Which is harder for you, for sound engineers to deal with to actually deal with...festival season which you know at some point you know will come to an end or a touring session which for example may not come to an end until two years later?**

We use to do a shit load gigs back in the day, so all the guys my age and some younger use to 25...30 gigs a month for years. It was okay because there weren't that many festivals back then. So...that was sort of our boot camp; I have been sleeping in a hotel for a little less than nine and half years every day.

**And, yet it is addictive?**

Well, what's that it says \*pointing to a sticker on the wall at Majava Bar\*..."this planet's rock and roll" It's a world that you create unto yourself." Also, frustrating is that the whole thing of you can't talk to anyone about things. The first thing that I said...Fuck'em, I don't tell them anything. Why bother? Nobody believes these stories, nobody understand what it is like unless you do it yourself. I don't understand the life of a plumber because I don't do it.

**I interviewed a musician so my questions were from the perspective of the person who receives the services. One of the things that he did mention was this world in which he exists, where his friends are there \*in the industry\* but it would be hard to explain things to people who are not there. It's not that people couldn't enter the world but just the world was moving. Would you say that was accurate?**

Yes, that is pretty accurate!!

**And, this person is not a people person either...**

Very few of us are NOT people persons. You can only trust your friends.

**Yet, you have the skill to manage people?**

Yes...

**What I am about to say is not meant as offense or comparison to live event techs but the first group that comes to mind that don't particularly like people but understand people extremely well are psychopaths.**

Wow...this would be a dream job for a psychopath; you create your own world. You control everything that moves in your sphere. I bet that some people might very well be psychopaths but in sort of a good way.

**Putting their predatory skill set to use in a different manner?**

Predatory...a good word I have to remember that; yes, that is true!

**This sort of picture is beginning to form after several interviews. Predatory skill set and bartending skill set.**

\*laughs...\*yeah...we are only there to sell booze! That is the bottom line at every job. At every job...! That's true...

**Well, I didn't mean it in that way...**

\*laughs...\* we sort of laugh about it but it doesn't matter what we do the bottom line is we're there selling booze.

**Well, what I meant by bartending is that monitor engineering is sort of like bartender, you serve up exactly what the artist wants. We are behind the console just like a counter; you watch and make sure that the cocktail you have served is perfect and if it is not perfect...you fix it. Predatory Bartender...**

Yeah...that is correct. \*laughs...\*it's a little like the Battlestar Galactic, you are hopping in time and space as fast as you can so you don't get fucked. But you know...still 99% of are all same people. I don't know my neighbors, I lost contact with

my old school buddies...everybody I knew when I was a kid. I don't know what they do. It's sort of...maybe their common people...

It is all about the touring. Ahh...that has sort of separated us from you know...I won't say society...but...

**You exist in a subculture?**

Yes, that is it. I know that this may sound strange but I am so happy that there are not that many gigs around anymore. Not because of myself but because of the younger people. Well, because...from beginning of 2010 to the end of 2015 I did 1, 133 shows. That's more gigs than these youngsters are going to do in their whole professional lifetimes. And, that is nice to see that they actually have real lives because. Well, we are over the hill anyhow...grandpas. And, it is a good thing that they have a choice, that they have their own life...whatever it is that is supposed to be in a normal life. I don't know anything about it, whatever a normal life is.

**Even if they don't do as many gigs the time factor is amazing. The average person doesn't that the concert that they only experience for two, has been in the process all day, since 7am and won't wrap until around 3am. For the people that work on these gigs, the time factor works as a barrier to the so-called normal life. How much of this is a stress to the outsiders?**

I don't know about that, you would have to ask my wife. We have been together since 1985. Yeah, you should talk to my wife.

**There has been a study on about music and its effect on an individual physically and emotionally.**

\*growls quietly with a slight smile...\* I don't want to go there...

**Sound techs are exposed to music that they love...music that for them is so so...and music that they can't wait for the gig to be done. Do you think that**

**factors in as an occupational stress having to deal with music that is not conducive to them?**

I don't know. Some people can take it, some people can't. I feel for the astronauts who are up there in a space station for two months or more and you can see home all the time through the window. Yeah...lucky it is not like that anymore. Back 30...40 years that wasn't much of a living for anybody if it wasn't something that you didn't want to do. I have been pro all my life. I have been lucky not to have landed a real job...ever! Once I tried I ended in a company, setting up their sound systems, plus I did 150 gigs a year.

**So you were meant to be in the music industry?**

\*laughs\*...Yeah, I guess so! I don't know. Though, I've been told otherwise. \*laughs again\*

**Last questions for my thesis, I have speculated that being a monitor engineer first and foremost is being able to cope with people. At least, 97% of what you have stated has been about people.**

Yeah, we didn't talk about gear, it doesn't matter.

It has been my hypothesis that adding psychology courses to the curriculum might benefit the band, the artist...etc. I have three questions.

**Given the occupational stress encountered by monitor engineers, should psychological training be part of the curriculum for those going into the field?**

...For those coming into the field, yes of course it helps. Those of us who have been here since the Stone Age got ours along the way.

**Do monitor engineers contribute to the occupational stress experienced by the performers when they are unable to perceive and contend with the mental and emotional states of the performer?**

\*laughs\* Yeah, it's too much hard work to fight with them and work with them at the same time.

Can having psychological training help the monitor engineer to perform their job and to deal with occupational stress on a personal level?

Well, obviously it doesn't hurt but you have to be taught somebody who has been there.

**A musician that I spoke to remarked, "That it will not help if they cannot read the situation. That are somethings that can be taught, somethings that maybe over-time you can learn...but you have to be actually around those that know, those that can point out the markers.**

Exactly...! He or she is exactly correct!

The problem...Now days, I am a bystander, an innocent bystander watching this whole education thing in our field. Kids are taught the wrong things, at the wrong time, by the wrong people; ask your professors when was their last time working a gig somewhere?

You have these poly-tech schools...live event programs...we have all the lighting and sound gear here...we are going to be professionals. Yeah...right...they don't teach a single thing that will help them when they get chucked out of there and they are supposed to land a job in the field and they meet someone like me...someone like...

They have to be already prepared. And the most difficult thing to explain to them politely, is that you just spent four years in a place that taught you things that I'm going to wipe out right now.

**So it is the difference between learning the formal language and the spoken language? Mitä is the formal; classroom language...Tä is what is used in everyday life?**

Yes, but I have a more graphic sort of image...you can read...look through porn magazine but you don't learn how to \*\*\*\*\*!

\*pauses in thought\* It is sad actually. So much talent is sort of wasted in my opinion trying to guide people into jobs that actually don't exist, that are not a profession. Media assistant...that is not a profession but they spend four years in school though. Now days...Sound guy...lighting guy...rigging guy...video guy...they exist. Media assistant...? \*

**One of the tech guys that I interviewed, I asked him about the fact of there not being many women and one of the answers he gave in a general sense not just speaking about women, “*that the outside world doesn't know what goes on, so they don't know what jobs actually exist. There are some that go to a concert thinking that it is always like this, that is always set up; so if you go to a show THINKING this way, why would you think that there is an actual career behind it.*”**

\*considers the words thoughtfully before responding\*

Yeah...that's true. That is actually pretty sad though because there is a huge amount of silent information that we should be passing on pretty fucking quickly to the next generation. Nobody \*professors\* ever asks us to come and talk to their kids about our work, we...probably... because we mostly preaching the wrong gospel.

**Is there such a thing as wrong gospel?**

Actually there is. Yes, there is. But then again we are sort of a nightmarish thing from the Stone Age! \*laughs\*

It is a job just like any other job.

**One thing that we didn't talk about was substance consumption.**

\*he laughs...sitting there drinking a beer\*

One permanent gig that I used have was the only exception. But other than that I have never worked drunk...high...with a hangover...or anything else. Off days between shows is okay...that is different.

**Would you say that the industry \*technical part\* do you think that it a problem coming to work under the influence of a substance, substance hungover?**

Yeah, but I send them home. Anyone of my crew shows up under the influence and I will send them home. I don't care what they do outside paying hours, at work they better be on the up and up. If something drops from the rigging for example and it hits anybody, the police will come, breathalyze us all, okay...you were drunk! Off goes the insurances, off everything, that's the one guy that gets to pay everything; all the damages, of course damages for the sound company, the promotor, the sound and lighting crews. Some people might have that sort of money in their pockets, I don't have. It is my job usually to sort of be the boring guy. Hey, one trainee once asked me..."I have been watching you for a couple months and you seem to be doing nothing. What are you actually doing here? I mostly try and sort of send you back to your Mama in the same physical condition you were in when you come in...both hands...a head. And, he didn't get it!

It's not worth people getting injured.

Appendix 5. Title

1(11)

Interview Monitor, Front of House Engineer & Tour Manager Viltso Haapala,  
24.5.2017

**How long have you been in the industry?**

I have been in the industry 20 years.

**What was your entrance point into the industry?**

By accident, I used to play guitar but I was never really good at that so but I still wanted to do something with music.

**You are the third person that I have interviewed in quest of a thesis and it seems as though that by accident that you have ended up in the industry as with the other three. Is this a common theme?**

Yes, at least in Finland.

**So why sound and not lighting?**

No idea \*then laughs\*. It might have something to do with when I was doing my civil service instead of going to the army 20 years ago I was working for the city of Kerava. They built a demo studio while I was doing my civil service over there, so I just kind of picked up over there.

**So you started off as a studio person?**

Yeah, and I also studied for a year so I received my papers for record studio but that is purely radio and T.V., the school had nothing to do with live. I have never worked on radio or T.V.

**I am starting to see a bit of a pattern here. Musician...not so good at it, let's go to the technical part and do studio. But you never actually done studio work or have you?**

I did studio work in the late 90's for a couple of years. I did demos.

**What was the turning point that made you go live?**

The studio where I worked during school it was owned by the city and they did not have the money to hire more people so I needed to find something to do. So I asked a bunch of rental companies if they had something. The first one that I walked in hired me the next day.

**In doing live sound, what is it that has kept you in the business for 20 years?**

I have to say touring.

**Why touring?**

No day is the same, although the basic principles are the same but still it is always a different city, always a different venue, and different crew. The only thing that stays is our crew and gear but everything else around it changes.

I have never been a guy who likes to stay in one place. I tried that mid 90's and I was actually working in an office and I lasted for three months before quitting.

**Part of my thesis is dealing with monitor engineering but not from the technical side the reason being is because the technical side changes according to the new...**

That is something everybody learns. Everybody learns the technical side...

**You being on tour quite a bit, how much would you say people skills are mandatory?**

If I put it against the technical side as a percentage I would say that it is 70%.

As said, everybody can learn the technical but it's about how you cooperate with people, that's the thing. Especially when hiring somebody. I usually start off with everybody knowing their shit but it is about what they are like as people.

And, for me example when I start off doing monitors the touring job I got doing monitors was actually only the second or third gig ever doing monitors. The guys

3(11)

wanted me, so I kind of learned on the way but on the other hand the band had never had a monitor engineer before me so we kind of learned together.

**Between the F.O.H and monitor engineering which would you say is more people oriented?**

I would say monitor engineering.

**So would it be safe to assume that when working with a band you need to develop a connection with the band?**

Yes, because if you don't have a connection with the band...then usually as least according to the band it doesn't sound as good as when you have a connection. If you have a good connection with the band, it doesn't need to be technically high of that level to please them, which kind of helps when you are in these unusual countries when things are more complicated.

**Speaking of different cultures, how often are you faced with culture shock, at least, when you were first starting?**

I am use to it now. I can't really recall those thoughts but I was definitely amazed.

And even now I... every now and then I just...people just kind of amaze me about..."okay you can do it this way ALSO..."

Do you consider yourself a people person?

Yes, I wouldn't be here otherwise.

**This may be simply work ethics; you seem to be very focused, friendly but focused.**

Yes, that is how I operate. When I actually doing the stuff that I am paid to do, then I just want to get shit done, but that is only 10% of the time.

**Why do you consider yourself a people person?**

I would be doing something totally different if I wouldn't enjoy being around people. I would think that I would be hiding in a studio somewhere if I wouldn't like people.

**Do you think that it gives you an advantage in understanding people?**

Mms... somehow yeah but I really haven't thought about it.

**There is a difference between not liking people but being to comprehend and understand their motives and what moves them. Which in turn I would arguably say that is what is needed to build a connection with an individual?**

Yes...

**In this industry what would you see occupational stresses, say for example from the perspective of the performer, their managing team, and yourself as a technician?**

The things that annoys me the most is the not knowing. Yeah, when talking with management, since I do production and tour managing, so it kind of 360 for me.

**So this gives you an edge understanding people when you go to talk with them. Meaning you can shift from one perspective to another because you do it?**

Yes. I have to do that. To be honest I would just rather do monitors and be nice to the band and that's it. That's how I started and that's kind of what I like to do only. But now days since the budgets are tight and all extra is kind of under the magnifying glass, so double duties are the way to do it.

**So that is how you got into the managing part of things?**

Yes, tour management and product. This is kind of that part that I have to deal with, and especially that part I just don't get enough information.

**When doing the management part of things?**

Yes, but on the other hand it kind of depends on the management, some management give me all that I need, when I need it. Some management even give the information to me before I need it, then there are some management that I have to three or four times before I get anything.

**So this would fall under occupational stress?**

Yes, and since I also need to book flights, hotels, trucks, and what not so the earlier I get the info the cheaper it is. For example, the Europe run I did this March, I wasn't hired to that until mid-January, so I when I was hired, I was kind of three months late on the schedule than I would have like to have been.

**How often do you work evening or nights?**

\*laughs\* Pretty much every time! Well, next week I got two days that are kind of day shifts, Monday from 7am till 4pm and Tuesday is 8am to 4pm, seminars on Finlandia.

**How does that effect when talking about sleep deprivation?**

It is kind of hard to talk about it, because I am use to waking up around noon and not going to bed until 2 or 3 in the morning.

**So having been doing this for at least 15 years, would you say that sleep deprivation does not affect you readily? Affect your judgement?**

No...no...I am use to it.

**As oppose to those just coming into the field who may not be used to it?**

Yes. Yeah, I have noticed on, especially on those longer runs that the so called F and G, they might be young, have better health and stamina and what not compared to us old geezers. But still after maybe four weeks on the road the old geezers still go on without bitching about and the new guys are getting angry and what not.

**So that is where the stress lines start to show?**

Yes, it's not the year but the mileage!

**Since I've been doing my internship from last year all the way up to now I have classified/noticed several groups. The old schoolers, mid-schoolers, and the young ones; Old schoolers it's we need this, this, this...let's do this, this, this. Oh this is**

**not working, do this, this, this...go back to the beginning, fix it, it's working now. Good.**

**Mid-schoolers...are just about there. The flex a little bit...fuck! This is not working. But then they calm down and it's like watching the old schoolers work.**

**The rookies there are some that are very stable, you could almost mistake them for mid-schoolers or even old schoolers except they don't have the hands on knowledge.**

**I've said all of that to ask this question. Do you think that there are people who are personality wise suited for this industry?**

Yes! Yeah, pretty much everybody, especially in the live industry are a kind of character! People of a certain types tend to gravitate towards the industry.

**Whereas if they don't gravitate, they will eventually in time will drift away?**

Yeah. And, there are loads of guys that started around the same time as me that are no longer in the industry in the sense that I am. They all kind of...not all but a lot of them have going on to work for distributors, opera houses...

**Something little more stable...?**

Yes.

**What would you say is in that personality type that is suited for this industry?**

\*laughs\* some kind of mental illness!

**It is not a good sign that I thought it and you said it Viltu.**

**How do you see the changes in the overall record industry affecting the live event industry? The reason I ask this question is because the record industry is based on three tiers, the recording, the publishing, and the live event. Of the three only the live event seems to doing well.**

Yeah, because the thing is especially on the bigger...the so call next level, the bigger you get, the bigger you need to have your shows in order to make the money you did before with the record sales. All the records sales have gone down, it's all streaming and Spotify and what not, on which your song get plays a million times and you 9 cents. So, you have to get the money from somewhere else which is touring and merchandise. You sale a lot of t-shirts and play shows, and in order to get money out of the shows and t-shirts you have to make better shows; which means that you have to better productions and since everyone is trying to better that everyone else so it is constant competition between productions. We need to top that, they did that, we can't do that...but that is pretty much talking about the so-called A-level.

**So the A-level is what is sustaining the industry now?**

Yes...Yes...

**So with what you described that means the technicians actually are benefiting from the competition of the performers? They need only show up and do what they do best?**

Absolutely!!

**There are other aspects of live events, pyrotechnics, rigging, lights, and video. How do you deem your relationship with the other techs there?**

It kind of depends on the production. If I am on touring production it means that everybody helps everybody and we are just a big family that lives in the same submarine.

**The instant statement that comes to mind when you said submarine is either you all sink or swim, is that pretty much how it all is?**

Yes! That's exactly it! Then there is the cooperate part which are different departments working for the same goal but still different departments. For example, last week I did this church music festival in Helsinki and after we got the sound out from the venue and I was driving to the warehouse to empty the truck and the LD called me that the light

multi-core was still on the ground, so is it stuck or why didn't you take it off. And, that was the same guy that I had been touring with, so I replied that it's a different thing than being in some Spanish countryside with a rock band. Now we are in different departments so light crew takes care of the lighting, the audio crew takes care of the audio, video crew...video. And, needless to say that he is one of the new guys.

**So it takes being assimilated, into the industry to know how things sort of go?**

Yes, because different productions need different approaches.

**Then it goes back to experience?**

Yes, and that comes all the time!

**When you are dealing with a performer for example on tour, because tours, especially the bigger ones last longer, so that means you're in close proximity with no escape on a nightliner.**

Yes. Luckily, every now and then there is a separate crew bus. So for example the couple tours that I'm going to do at the end of this year, one U.S run, one European run, we are traveling on separate buses.

**Is that a good thing?**

That is definitely a good thing! People get more space.

**I once it said that it is a good thing to have a crew bus and a band bus, that way the crew can bitch about the band and the band can bitch about the crew and it keeps things civil.**

That is only one part of it. The crew and the band, they usually have different schedules. The crew gets in in the morning and the band doesn't get in until late afternoon, so when the crew gets up then there is noise on the bus and the band is still sleeping. So, they are irritable because of the noise. Then after the show in the night the

band doesn't necessarily need to go to bed since they don't need to get up until late. But the crew needs to hit the sack!

**In the industry, the live event industry changes with great regularity. As with any industry there are certain stresses that if you are not in the industry you really cannot understand. So how important is it to have emotional support system?**

I would say that it is an individual thing. But on the other hand most of my friends are also in the industry so there is an automatic understand of things, support.

The most stressing part is if you don't have your next gig schedule, at least for me. When the European run in early April ended, I had a total of four shows schedule for the next two months. So April is okay since I get paid from the tour and I actually kind of wanted a couple weeks off but in May I need to start working again but nothing is scheduled. And after two weeks still nothing so that was kind of the time...

**When it gets to that point of stress do you go forward and look for something or do you wait for it to come to you?**

I do both. And, when it goes to that point that I'm actually annoyed by the situation that is usually when I start asking, and when I start asking, the shows cause by me asking are two months away and I would need them now! \*laughs\*

But then again, there has always been something. Like three weeks ago I had scheduled two days in these three weeks. Looking at the calendar I ended up doing 13 days in all. But the thing is that one would just like to know well advance what is going on, that kind of helps organizing the life with the Mrs. and you know your financials.

**A study released from Victoria University in Australia and it talks about the occupational stress in the live event industry and it goes from the aspect of the performer, the management, and the technical crews. One of the main things that are a stress factor was the not knowing part. And the other part that they did not have anyone to confide in concerning the things that bothered them the most. For**

**example, an orchestra player indicates that their wrist has been sore for several days, the all of a sudden there is this thought that they might not be capable of playing. Do you find that these things happen with technical people?**

No, not really since as I said before it is mostly about the personality, especially on the touring side. In corporate events people get hired solely on their skills. But touring jobs the tech side is just something that comes along over time and you know some but you just need to be in the same submarine for how many weeks.

When comes down to those individuals who are not in the industry such close friends, significate others how does that effect your interaction with them when you are constantly on the road?

Talking about my wife for me it doesn't really matter where I fly from for the first gig. So the location isn't that important so it is up to the Mrs. But me being away, that is also kind is up to the Mrs. But we have been together for 17...18 years so she knows where we are at.

**So would you say that for those that are looking to have some sort of relationship but stay be in the industry and be on the move your communication skills have to be top notch?**

With the Mrs you mean?

**Yes?**

No not really, since they are also individuals... characters too! It requires a certain type of person to deal with the other one being away.

**So that falls back into the question that I asked, are there certain people who are inclined to live this lifestyle.**

Yeah. Yeah. Actually, my wife, she is happy that I am gone every now and then. She gets the home all to herself for that time. As long as I am not away too much, it was 2004 where she counted that I was at home for 47 days out of that year. I did three European runs which all lasted 3 months each and then I did a bunch of festivals with two different bands in Finland. So after that, she said that that was too much! So after that I am usually at home at least 100...150 days out of a year.

**In my thesis I am proposing that psychology and conflict resolution become part of the curriculum. What would you say to having psychology and conflict resolution as part of the curriculum for someone going into sound?**

Absolutely!