



Using Different Cultural Elements in Producing Music

Integration of the influences of Iranian and Finnish music and cultural elements in Progressive Rock music

Ahmad Tokallou

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ABSTRACT

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TOKALLOU, AHMAD:

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With increasing globalization and diversity, the need for intercultural dialogue and understanding has become more critical. This thesis explores the practical application of producing an album with the aim of employing diverse cultural and musical components. As in the beginning of this study, an investigation and analysis of different cultural aspects of Iran and Finland was done to some extent.

The study focused on the pre-production, production, and post-production stages of the album. It used a mixed-methods approach, including qualitative data gathered through interviews with music producers, artists and drawing on theoretical frameworks of intercultural communication, cultural studies, ethnomusicology, and globalization theory.

Ultimately, the thesis offers insights into how the production of music can serve as a tool for cultural diplomacy, bringing people of different cultures and nations closer together. Additionally, it delves into the advancements made in term of sound engineering during the production of the album.

Key words: Culture, Music, Production, Globalization

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GLOSSARY or ABBREVIATIONS AND TERMS (choose one or other)

Micing (Miking)

The process of placing and positioning microphones to capture sound from a source, such as a musical instrument, voice, or ambient environment. Effective micing techniques are crucial in recording and live sound reinforcement to ensure high-quality audio capture.

1 INTRODUCTION

Music is a remarkable medium that has the ability to break down cultural barriers and unite people from all walks of life. Its power lies in its ability to communicate across different languages, cultures, races, and backgrounds. Through music, we can create a world that is more tolerant, harmonious, and connected. (White 1965, 1-11.) Throughout history, music has served as a powerful form of communication, allowing people to express their emotions, convey stories, and uphold cultural traditions. In the present age, where the world is becoming increasingly interconnected, music continues to play a crucial role in promoting cross-cultural understanding and unity. (Cultural Infusion 2020.)

Music has the power to challenge stereotypes and prejudices by showcasing the diversity and complexity of different cultures. Can producing music that incorporates elements from different cultures help promote diversity and inclusivity in the music industry and beyond? How can the power of music to break down cultural barriers and unite people from diverse backgrounds be harnessed to promote cross-cultural understanding, collaboration, and innovation in an increasingly interconnected world in the future? This thesis explored how music can serve as a means to gain insights into diverse cultural perspectives across two different nations, by examining the role of cross-cultural collaboration, fusion, and innovation in music production.

2 Cultural Musicology

According to Van Der Meer (2016), the idea of cultural musicology is to investigate any type of music in any part of the world, unifying various perspectives, including cultural and systematic ones. The cultural perspective explores the meaning of music as a medium of communication between self and others, while the systematic perspective encodes the form of music through music theory. Cultural musicology integrates methods and approaches from ethnomusicology, the anthropology of music, and new musicology, as the cultural analysis of music and

the musical analysis of culture. It studies music in its cultural frames and pays attention to the mediation of hybridizing processes, leading to the emergence of new meanings in new world hearings as a result of music's travels. It is not confined to a Eurocentric approach but requires the application of indigenous methodologies and the development of new methods of analysis. (Van Der Meer 2016.)

2.1 The Historical Context of Cultures

In accord with Ministry of Foreign Affairs of Iran (2024), Finland and Iran have had diplomatic relations since the 17th century. After recognizing Finland's independence in 1918, Iran designated an ambassador to Helsinki in 1934. The first Iranian king/president to visit Finland was Mohammad Reza Shah in 1970. Also the Consulate General of Finland in Tehran was upgraded to embassy level in 1974 and Kurt Uggeldahl became the first permanent ambassador. Relations were renewed after the Islamic Revolution in 1984.

Persia recognised Finland on 23 July 1918. Diplomatic relations were established on 12.12.1931. (Finland Abroad n.d.).

Despite their unique cultures, histories, and geographical locations, Iran and Finland share some interesting commonalities. For instance, both countries have traditional bathing practices - Finnish Sauna and Iranian Hammam (Moayed & Tastelran 2019.) They also have similar sweet dishes, such as Finnish Mämmi

and Iranian Samanu. (Ghorbani & Rezaei Nia 2022). Although Iranian influence on Finnish culture or vice versa is hardly existent in any historical form or era. There have been, however, ancient connections. The Uralic and the Indo-Eurpean languages were born as neighbours and in the vicinity of each other, and they have influenced each other apparently right from the beginning, at least from the Indo-European languages to the Uralic languages. There are loanwords from Indo-Iranian like mehiläinen/bee and porsas/piglet and the trade word sata/hundred, udar/udder, varsa/foal, vasa/fawn, as well as vasikka/calf and tiine/pregnant, the words jumala/god, taivas/heaven, marras meaning dead/death, and syntyä/be born. (Kulonen 2018.)

Artistic director Elina Sorainen (2014) emphasize that Iran has a rich history of art, including fine art, sculpture, painting, calligraphy, graphics, music, literature, and film. People in Finland, including Loviisa, would love to experience a taste of it. In the other hand both Iranian and Finnish cultures have a significant appreciation for music. Iran has a rich history of traditional and classical music, while Finland is renowned for its symphonic music and contributions to contemporary genres such as heavy metal. (Helsinki Time 2014.)

2.1.1 Music of a Thousand Years (IRAN)

The history of music in Iran dates back thousands of years, it has had many ups and downs both culturally and structurally over thousands of years, from the evidence in the ruins of the Achaemenid and Sassanid empires until the culture was attacked by the Arabs, Turks and Mongols, and again in the nineteenth century the music rebuilt and restored itself, a completely new form is created from the experience musicians have had of resisting the onslaught of other cultures all these years and The distinction of the radif-dastgah tradition from the twelve-maqam system is highlighted by its distinctive historical journey. (Lucas 2019, 20-21.) which has started by Barbad, who invented "Lut" in the court of Sasanian ruler Khosrow II and developed a musical system consisting of seven "royal modes" (xosrovāni), 30 derived modes (navā), and 360 melodies (dāstān). (ENCYCLOPÆDIA IRANICA Foundation 1990.)

According to Nettl the American musicologist (2006) the influence of Persian music on South and West Asia, particularly on the musical terminology of Arabic, Turkish, and Azerbaijani cultures. It also mentions how Mughal emperor Akbar brought Persian musicians to his court, which led to major changes in Indian music.

The article goes on to discuss the dominance of Jalāl-al-Din Moḥammad Rumi's work and thought in Turkish classical music. In the twentieth century, the standardization of the Radif, a body of short pieces of music used as a point of departure for improvisation and composition, distinguished Persian music as a distinct system with a unique sound and structure. The use of the Western-based international system of music notation led to the formation of orchestras and distinguished ensembles, and the introduction of Persian music to Western audiences was facilitated by the Persian diaspora communities in Europe and North America. (Nettl 2006.)

According to ethnomusicologist Ann E. Lucas (2019, 15), In 2009, UNESCO approved Iran's application to have the RADIF inscribed on its "Representative List of the Intangible Cultural Heritage of Humanity."

2.1.2 Music of a Thousand Lakes (FINLAND)

The history of music of Finland and its emergence as an independent nation stemmed from Finnish-Russian tensions in 1809 and it led to intellectuals promoting the Finnish language, landscape, music, and culture as a way to assert independence and national unifying force. Elias Lönnrot collected and arranged folk song-poems to form the Finnish epic, the Kalevala which offered a mythical basis of Finnishness and inspired notable artists like Akseli Gallen-Kallela, Robert Wilhelm Ekman, and Robert Kajanus. But maybe we can realize how deeply music played its role through a thousand years when we look at this sentence according to physician and philosopher Elias Lönnrot and translator W. F. Kirby (2008) "Väinämöinen constructs a kantele or harp of pikebone, and lulls Louhi and her people to sleep". The musical works of Jean Sibelius and how he successfully transposed the epic quality of the Kalevala into music for greater

audiences in Finland and abroad. His works, such as the symphonic tone poem Lemminkäinen Suite and the choral symphony Kullervo, were inspired by characters and stories from the Kalevala. Sibelius also drew inspiration from specific places and regions in Finland, as well as grander notions of Finnishness, as seen in his Karelia Suite and the dramatic symphonic poem Finlandia. These musical expressions were intimately linked to the patriotic sentiment of his day and a call for Finnish independence. (Sturman 2019, 927.)

The coherence of music in Finland during its transition from Sibelius to globalization is due to the inherent tacit dimension in its education. In this approach, knowledge, skills, and values are primarily passed on through music-making rather than verbally or through written documents. Music educators are integral to this tradition, and professionals in music and music education possess a significant amount of tacit knowledge due to early musical studies. (Heimonen 2014.)

In addition, during the decades' Finnish music was globalized, and the most important parts of it e.g., Classical music, Jazz, Iskelmä, Rock, and Heavy Metal music played a big role in exporting Finnish music to the rest of the world. (Sturman 2019, 931-2.)

2.1.3 Emphasize Commonalities

Perhaps one of the most important commonalities between the two Iranian-Finnish cultures is the existence of epic literature. Around the year 1000, the Persian poet Ferdowsi wrote what is one of the world's great epics, Shahnameh (The Book of the Kings), using pre-Islamic Persian historical and mythological traditions. Shahnameh is a telling of Persian history through the history of Persia's kings, from the first kings through to the last king before the Islamic conquest of Persia. Because so much pre-Islamic mythological and heroic tradition is preserved in the epic, it is an invaluable resource for studying early Persian mythological, historical, and heroic traditions. But, in addition to its importance for the study of pre-Islamic traditions, because Ferdowsi's epic was so thoroughly accepted by the Persians that it has influenced virtually all later Persian literary,

folk epic, and romance traditions, it is an essential source for understanding later Persian tradition as well. (Gay 2006, 243.)

Ruth Hemstad & Peter Stadius (2023) emphasized after Castrén, that the terms Turanian and pan-Turanian were popularised internationally by linguists like the German-British Max Müller. Finnish nationalist historian Yrjö Koskinen explored the Turanian ancestry of the Finns in his 1862 doctoral dissertation.12 Clergyman and populariser of science, Johan Calamnius, praised the Turanian civilization as the first and oldest in the history of humanity.13 Turanian, applied to the Finns, was thus an accepted term. Finnish scholars were initially the driving forces behind its popularisation. However, in the late nineteenth century, Finns began to gradually abandon the idea, just as the term gained popularity among Hungarian authors. The term Turan initially reached Hungarian readers through second-hand translations of Persian and Turkish works. In the medieval Persian epic Shahnameh by the poet Ferdowsi, the nomadic steppe warriors of Turan (often interpreted as Turks) battle the heroes of Iran. The fascination for the Orient triggered a kind of proto-Turanism among Hungarian literati, conscious of the steppe nomad heritage of the ancient Magyars. In the early nineteenth century, the FinnoUgric language family was still only a fringe theory in comparative linguistics. (Hemstad & Stadius 2023, 242.)

Nowadays the only things that I can hint to it is music and art aspects in commonalities, In Finland, with over 10,000 people of Iranian background, it is common for both Iranian immigrants and many Finns to play, dance, and listen to Iranian music. They also participate in cultural ceremonies like Nowruz and Yalda, both UNESCO-listed festivities. Bands such as Road Ensemble in Jyväskylä, Baran Band in Helsinki, Aava Music Association in Turku, and Aalto Iranian Association (AIA) in Helsinki actively play and teach Iranian music across Finland, reflecting a strong cultural exchange. The history of Iranian music in Finland began with the immigration wave post-1979 revolution. Notable contributions include Zekrollah Aflatuni, who founded a family band and blended Iranian and Finnish music. In the past two decades, Iranian musicians have studied at Finnish institutions like the Sibelius Academy, forming bands that blend Iranian classical, folk, and fusion music. The shared appreciation for melody and cultural storytelling between Iranian and Finnish music traditions fosters ongoing

collaboration and strengthens the bonds between these communities. (Elävä Perintö 2023.)

2.2 In-depth discussions with professionals

The production of the album involved collaboration between musicians, producers, and artists from Iran and Finland. This collaborative process not only enriched the creative output but also facilitated intercultural dialogue and understanding. Through interviews with professionals such as Kayhan Kalhor, Arja Kastinen, Mahsa Vahdat, and Jussi Reijonen, insights were gained into the intricacies of Iranian and Finnish music and culture. These discussions highlighted the importance of mutual respect, open-mindedness, and cultural sensitivity in cross-cultural collaboration.

2.2.1 Kayhan Kalhor



PICTURE 1. Kayhan Kalhor (Womex 2019).

Kayhan Kalhor, an acclaimed virtuoso of the kamancheh (spiked fiddle), is renowned worldwide for his mastery of Persian music. He received WOMEX 19 artist awards in Tampere, Finland. Through collaborations spanning various genres, he has significantly contributed to the global popularity of Persian music. As a soloist, he has toured with esteemed ensembles and orchestras, including the New York Philharmonic and the Orchestre National de Lyon. His music has also graced the soundtracks of films, including Francis Ford Coppola's "Youth Without Youth." His recent albums include "Silent City," a collaboration with Brooklyn Rider, and "I Will Not Stand Alone" with Santoor player Ali Bahrami

Fard. Nominated for three Grammys, Kalhor received a Grammy Award in 2017 with Yo-Yo Ma and the Silk Road Ensemble. (Kayhan Kalhor n.d.)

2.2.2 Arja Kastinen



PICTURE 2. Arja Kastinen (Temps 2019).

Arja Kastinen, born in 1963, was the first Finnish folk musician to pursue a Doctor of Music degree at the Sibelius Academy, completing her examination in December 2000. She drew inspiration from ancient Karelian kantele improvisation and presented five solo performances centered on improvisation titled "Music based on the ideology and the acoustical phenomena of the kantele in the Karelian kantele improvisation" from 1997 to 2000. Kastinen also engaged in international collaborations, with artists and musicians from various cultures, including Alison Melville, Ben Grossman, Peter Phippen, and Tiit Raid. (Temps 2024.)

2.2.3 Mahsa Vahdat



PICTURE 3. Mahsa Vahdat (Womex 2011).

Mahsa Vahdat, an Iranian musician based in the San Francisco Bay area, is celebrated globally for her unwavering dedication to her musical journey and the advocacy of freedom of expression. Her captivating voice, deeply rooted in Iranian heritage, and innovative musical style have defied bans on music and solo female singers imposed by Iranian authorities since 1979. Through her performances and recordings, Mahsa bridges cultural divides, showcasing the richness of Iranian poetry and music to audiences worldwide. Collaborating with esteemed musicians like Mighty Sam McClain and the Kronos Quartet. (Mahsa Vahdat 2023.)

2.2.4 Jussi Reijonen



PICTURE 4. Jussi Reijonen (Soundi 2023).

Jussi Reijonen an international Finnish musician who brings together an ensemble of musicians from diverse backgrounds, drawing from his experiences growing up in the Middle East and East Africa, as well as living in the United States. His new album, "Three Seconds | Kolme Toista," reflects the interplay of various cultures and explores themes of identity and belonging. (Jussi Reijonen 2024.)

3 Setting sail on a journey for the lustering of the sun amidst the crisp embrace of the frost

As I set sail on a journey from my homeland in Iran to the enchanting landscapes of Finland, I found myself immersed in a world of contrasts - the lustering warmth of the sun against the crisp embrace of the frost. This voyage wasn't merely a physical transition but a profound exploration of cultural diversity and musical expression. Growing up in Iran, I was steeped in the rich tapestry of Persian music, with its intricate melodies and vibrant rhythms resonating deeply within me. The closeness, both spatially and culturally, between the migrant's place of origin and their new settlement has significant implications for how music influences the migration experience (Baily and Collyer 2006, 175.) However, now the place of my birth is miles away from the place of my education, both in terms of distance and culture. But, my relocation to Finland opened doors to a new realm of sonic possibilities, where the ethereal sounds of the northern landscape intertwined with the rhythms of my roots. Inspired by this fusion of cultures, I embarked on a musical odyssey, seeking to weave together the essence of both worlds into my compositions. Drawing upon my experiences and embracing the diversity around me, I began a creative exploration to produce music that transcends borders and celebrates the universal language of melody and rhythm.

3.1 Culture and Tradition

The discussion of the influence of culture and tradition in music is very important, in a broader view than studying in another country with a different culture to a larger community, we realize that certain migrant groups utilize music internally, aiming to preserve their cultural identity. However, in many contexts, particularly in the United States, music serves as a means of engaging with the broader community, establishing the group's identity in the perception of others (Baily and Collyer 2006,172-173.)

For example, if we look at Bhangra music, a non-traditional example of Punjabi people's music who live in England, we can see that it was neither an imitation of Western music nor an attempt to appease older generations. It didn't conform

solely to Indian influences like film music, nor did it exclusively adopt Western styles like pop. Instead, Bhangra symbolized the maturation of a new generation, providing them with a platform to express their identity to their white counterparts. No longer were they perceived as shy, closed-off, or conservative; rather, they were depicted as ordinary, fun-loving young individuals. This emergence signified a significant moment for the British South Asian youth, who had finally found their voice — a voice that embraced both the cultural poles of their heritage and modernity, blending them harmoniously. (Banerji 1988, 211-212.)

Cohen (1997) concludes that while the re-enactment of cultural practices may offer solace and nostalgia, recent research has highlighted migrant culture as dynamic and innovative. Migrant groups are now recognized as sources of cultural creativity, making pluralism and enriching host countries. This shift in perspective underscores the need to move beyond rigid notions of authenticity and embrace the fluidity of cultural identity in a transnational context.

3.2 Education and Training

Music production education is a multidisciplinary subject that combines creative arts, media, communication, engineering, and business. Providing quality music production education poses several challenges, such as the need for physical space, high costs and maintenance of technical resources, simulating real-world scenarios, and diverse student cohorts. Additionally, the diversity of music genres requires equally diverse methods of music production, and the emergence of the 'artist producer' brings new challenges that require more knowledge of composition, song writing, commercial music markets, and marketing methods. (Toulson 2018)

Before the pandemic, TAMK's music production program emphasized a holistic approach that integrated theoretical knowledge with hands-on practical experience. Through a combination of coursework, workshops, and collaborative projects, students develop technical skills and creative abilities essential for producing music. while TAMK may not have met my initial expectations, the educational journey has been filled with challenging situations and transformative

experiences. Collaborating with a friend from Iran who joined me to study music production, we're integrating diverse cultural elements into our music production, culminating in the creation of an album for my thesis. it has added a personal and culturally rich dimension to our music production, resulting in something truly unique.

3.3 Martaat

Naming a band isn't crucial, but you can't start a band without a name. Once you have a unique name in mind, file a legal document to DBA (do business as) a fictitious name. This is the first step in creating a business entity, which allows you to do things like open a checking account in the name of the band. (Marks 2019.) our decision was once again influenced by our goal of fusing Iranian and Finnish cultures. We chose to use a shared noun based on scientific texts and opted for the plural form of "Marras", which is borrowed from the early Iranian language, as far as Holopainen (2019) explains that the Finnic word "mṛtá-" meaning "dead" is believed to be borrowed from Indo-Iranian. The source word is uncertain, but it may have been *mṛta- or *marta-. The substitution of *-ar- for *r in Finnic is believed to be a late borrowing, possibly from Proto-Iranian. The word's semantics don't provide much clarity. There is a debate among scholars regarding whether the word was borrowed from a Finno-Permic stage or a Proto-Finno-Ugric stage. It has been connected to Permic and Mordvin words, but they are likely parallel borrowings rather than cognates. (Holopainen 2019, 137-143.)

According to Kaisa Häkkinen's etymological dictionary (1990, 192-240-241.) the word "Marras" has two possible meanings. It can refer to someone who is dying or already dead. Alternatively, it can be associated with the spirits of the dead, known as "Martaat," which are believed to wander during the dark month of November (Marraskuu). The word "Marras" has equivalents in related languages, and it's believed to have been borrowed from an old Aryan or Indo-Iranian word.

"MARTAAT is a music band from Finland formed by two Iranian pals. Hailing from the land of suns, packed with 20 years of friendship they embarked on a journey to shape a new musical spirit in the land of a thousand lakes. The band's sound is influenced by rock/punk rock/metal music. MARTAAT's music has a unique and evocative sound that draws from Iranian folk and classical music and also incorporates elements of the Western/Finnish folk, rock, and metal genres. The music and lyrics are reflections of their journey, both personal and artistic, and a testament to the power of music to bridge cultures. Audiences portray the band's live shows as an intense and captivating experience filled with sheer excitement. MARTAAT, expression of notions and emotions through ticking face of time." (Martaat 2024.)

4 Songwriting

Songwriting for this project was deeply influenced by life experiences and involved close collaboration with Mohammad Aghaei. Effective communication and discussion of visions, goals, and band ideas were crucial. My relocation from Iran to Finland was a pivotal moment, inspiring me to blend Persian music traditions with metal and rock. Techniques like modal interchange and rhythmic syncopation allowed for the harmonious integration of Persian motifs with metal and rock elements. The songs reflect the fusion of Iranian heritage with Finnish cultural influences.

when I read an article from Phillip McIntyre (2008) that emphasizes that songwriters studied in this ethnographic research engaged in generating songs from inherited traditions of contemporary Western popular music, I realized that always cultural influences are mutual and sometimes musicians even unconsciously express the influences that they have taken from other cultures, whether from eastern culture to western culture, north to south culture and vice versa in their music. The unique variations that emerged were highly regarded contributions to the domain by the social group. This demonstrates the interdependence of the domain, field, and person involved in cultural production and highlights the mutual dependence that makes both agency and structure possible.

A songwriter's role is to reinterpret existing conventions, rules, and ideas of songwriting. To excel in this field, individuals must acquire cultural capital, which is a form of knowledge that enables them to grasp cultural relations and artifacts. This acquisition occurs gradually through immersion, reaching a profound understanding of the cultural domain. (Bourdieu & Johnson, 1993.) We are actively learning the Finnish language and have been, which enhanced our understanding of Finnish culture. It's important to note that the songwriting process has consistently involved acquiring knowledge. Currently, the songs have been composed, with the addition of a Finnish drummer and a Finnish sound engineer along the way. This collaboration provided an excellent opportunity for us to engage, exchange ideas, and share our cultural insights during the songwriting process.

4.1 Being Inclusive

To be multiculturally sensitive in music and culture we should create a suitable platform where individuals from diverse backgrounds feel valued, welcomed, respected, included, represented, and heard. It ensures that everyone feels a sense of belonging, can express their authentic selves, contributes to the collective cultural tapestry, and has their unique voices recognized and appreciated.

To establish this inclusivity, we extensively studied Finnish culture across various fields. In addition to recognizing cultural commonalities and conducting the research previously mentioned in this thesis, we incorporated Iranian and Finnish musical elements and instruments. We also included other Eastern sounds, such as Duduk.

4.1.1 Musical analysis and Improvisation sessions

Following our research and investigation into cultural and musical characteristics, composing has begun by analyzing the traditional scales and structures of both countries' music. Improvisation was placed based on Iranian music rhythm as the main foundation of the album, allowing us to blend these elements seamlessly. During the process, it was determined that Dotar could represent the soul of its hometown and Iranian music due to its rhythmic and essential alignment with the album. Among the Kantele and Jouhikko, which represent Finnish music, Jouhikko was chosen for its closer tuning and harmonious alignment with the overall essence of the project, complementing the Dotar perfectly.

4.1.2 Dotār

The dotār of Khorasan (in the broad sense and where the author is originally from there) is made of wooden strips glued together and traditionally strung with silk or gut, now replaced by steel. It is tuned in fifths or fourths, with a body carved from a single mulberry log and often fitted with metallic frets. Played by Persians, Turkmans, Karakalpaks, Turks, Kurds, and Afghans, it is favored by troubadours (bakšī) and used as a solo instrument. It has a light, brilliant timbre, with a playing technique based on rapid tremolo ornamentation. There are several subcategories reflecting the region's ethnic traditions. (During 1995.)



PICTURE 5. Dotar (Tokallou 2024).

In line with the research, during the trip to Iran this year, Mohammad Aghaei traveled to the city of Torbat Jam, the center of Dotar Khorasani, and bought a Dotar Khorasani from a master manufacturer Mohammad Soleymani. the tuning of Dotar can be C & G or A & D. In 2019, The traditional skills of crafting and

playing the Dotār were registered in the list of the Intangible Cultural Heritage of Humanity by UNESCO. (UNESCO 2019).

4.1.3 Jouhikko

The Jouhikko, also known as the Jouhikantele, belongs to the family of bowed lyres. Its name translates to "Horse-Haired Lyre," reflecting its unique feature of horsehair strings. While bowed lyres are globally present, the Jouhikko is particularly associated with Finland. Additionally, it can be found in certain areas of Estonia and various regions across the Scandinavian peninsula. During the production of the EP, I had the opportunity to have the instrument from Pekko Käppi, and Jouhikko part was played on the EP. Most Jouhikkos are tuned to the key of D, with the strings typically arranged as D - A - E (D being the bass, A the drone, and E the second note on the scale). In the alto Jouhikko, the tuning shifts to A - E - B, allowing for the playing of both major and minor scales. This tuning versatility is demonstrated in a video by performer Pekko Käppi, who introduces the basics of playing the Jouhikko. (CoolMusicInstrument n.d.)



PICTURE 6. Mohammad Aghaei is playing Jouhikko for the EP (Tokallou 2024)

4.1.4 **Duduk**

Duduk is a uniquely Armenian instrument, unlike other regional instruments linked to the Silk Road. Over the centuries, it has spread and evolved in neighboring countries, with variants found in Georgia, Azerbaijan, Turkey, Persia, and the Balkans. The recent use of the duduk in movie and TV soundtracks like "The Last Temptation of Christ," "The Crow," and "Xena: Warrior Princess" has highlighted its evocative and soulful qualities. However, the duduk is also capable of a wide range of melodies, including rhythmic dance tunes. This versatility, along with its deep and powerful sound, has made the duduk an integral part of daily life in Armenia. Indeed, no wedding, festive occasion, or family gathering would be complete without a duduk player. (Duduk n.d.)



PICTURE 7. Duduk (Tokallou 2024).

4.2 Lyrics

To promote inclusivity, we have decided to write the lyrics in English, incorporating both Iranian and Finnish elements. Iranian poetry is known for its use of metaphors, so we blend these with Western and Finnish motifs to create a universally understandable narrative. The music is imbued with a sense of

darkness, reflecting a pervasive sense of foreboding. Additionally, we occasionally integrate Iranian words and melodies into brief segments or phrases influenced by Maqami music, such as:

We also incorporate documentary sounds in one of the songs of the EP "Grave Train" from the tragic events that occurred during the Iranian protests less than two years ago. For instance, we include a Kurdish lullaby sung by a mother at the grave of her son, who was killed by the regime. This poignant blend of traditional elements and contemporary events adds a profound emotional layer to our music, which may become a signature feature of Martaat's songs. Ultimately, the lyrics convey stories and interpretations of life, serving as a bridge for self-identification across diverse cultures.

4.3 Arrangement

The arranging of this EP follows progressive rock senses with some heavy metal taste but since the composing was based on improvisations and analyzed music as well as many years of experience in the music production field, the music arrangement is not on some routine following rules of music arranging like A, B, C, D and the arrangement and the writing lyrics parts went together hand to hand so most of the time there is no regular intro, verse, chorus, outro and always be avoided from repetitive parts in the songs.

5 Practical Part / EP: "Non-Technical Teleportation of a Vase"

After completing the composition, lyric writing, and arrangement, the "Non-Technical Teleportation of a Vase" EP demo was recorded, and the main idea is nearly finalized. With certain acts, songwriting forms the solid foundation for everything else, requiring minimal alterations, perhaps a minor structural tweak now and then, but it's about 95 percent complete, Tommaso Colliva (2017) remarked, highlighting the variability between projects.

5.1 Pre-production

Regarding the point where songwriting ends and pre-production begins, Genockey (2017) seemed quite clear "If you suggest a different chord or another key or tempo, then that is not songwriting, that's being a producer."

5.1.1 Leaving Headroom Not Only for Volume

Producers emphasize the importance of planning while allowing room for spontaneity in the studio. Pre-production is crucial for improving creativity. an environment where ideas are welcomed, even silly ones. (Sound On Sound 2017.) Essentially, pre-production encompassed all aspects of the recording process completed before entering the studio. This phase involved tasks to set up a studio with all instruments ready to play and record allowing artists to try ideas on the fly and avoid technical interruptions. such as demoing songs, creating scratch tracks, building click tracks, crafting mock-ups of song parts and sequences using MIDI virtual instruments, booking all necessary gears and instruments, also fine-tuning precise tempos, tones, and textures. All these preparatory steps were undertaken after project planning and before heading to the studio for the final recording. Spending a whole day on setup, even in expensive studios, ensures smoother sessions later.

5.1.2 Project Plan

The project plan was meticulously designed a year before the final recording and thesis writing. While most of the plans proceeded smoothly, some adjustments were necessary. For instance, although we initially intended to have a professional bass player record the bass lines, we ultimately decided to record them ourselves. These changes ensured the project's success and adaptability to evolving circumstances.

Goals:

- Making the final production ready to present as the practical part of the thesis and release later.
- Music Production-wise, reaching a quality album that can compete in the Finnish music market.
- Achieving unique fundamental aspects and elements of our music style as music producers. Scope The result will be an EP album including 5 songs. The production, final recording, mixing, and mastering of the songs will be undertaken in this project. However, there will be no promotional, licensing, or marketing activities.

Project Milestones

Ahmad Tokallou, Mohammad Aghaei

The start date is 15th of May. The end date is 15th of June 2024.

Finding and cooperating with a bass player and a drummer (as session players) who match the music style and can add their own taste to the bass and drum lines. It must be done before May.

Project Budget

- Monthly recurring expenses: Food and transportation.
- Non-recurring expenses: Session players (bass and drums) Musical instrument accessories (guitar strings, effects...) Probably needed plugins.

Project Charter: [MARTAAT-EP Album]

Constraints, Assumptions, Risks and Dependencies

Constraints:

- Time limitation due to thesis schedule

Assumptions:

Risks and Dependencies

- Financial restriction is the most possible factor that can affect the delivery.
- The album is going to be recorded, mixed, and mastered at Mediapolis music studios (Kosmos 1, Sputnik 2) but they might be reserved during the time we need. However, the project is being implemented during summer to lower the risk.
- Summer is always a good time for renovations in school studios!
- There is always room for unexpected technical problems at studios.
- Good attitude in teamwork.
- Studios are in good condition, and everything works properly.
- Getting feedback and comments on the songs and production from our teachers like Janne Tauriainen and Hiili Hilesmaa during the process.
 - Getting help from our friends in some recording sessions.
 - Composing and making the demo of the 5th song in April and therefore all the demo songs will be ready, and we will have a clearer view of the wholeness of the album.
 - Having a list of everything needed for studio days to be able to book them in advance. (Clear Pre-production)
 - Finding and hiring the session players before May.
 - Reserving the studios for recording must be done at the beginning of May.

5.2 Production

It was time to record the finalized ideas and follow the evaluated sounds in the pre-production direction. we had already the recorded drums lines, so started with bass and guitar lines then the synthesizer lines, and at the end vocals. we worked tirelessly to get the sound we were looking for, using all the production techniques and skills we had under our belt. We also helped to make any creative decisions that would ultimately fulfill the vision.

Focused on specific tasks during dedicated sessions to maintain concentration and avoid the productivity drain caused by frequent task-switching. Compare the work-in-progress with commercial music to ensure the project does not align with industry order and follows the personal and unique idea. Consolidated tracks to audio to streamline the workflow, reduce CPU load, and avoid endless tweaking. Lastly, we recognized that creativity requires mental downtime; we allowed ideas to surface naturally by giving our minds space to relax. By implementing these strategies, we could work smarter, improve our productivity, and create higher-quality music.

It's worth highlighting that the entire composition and pre-production stages were meticulously crafted using "Logic Pro", while the production and post-production phases were expertly executed using "Pro Tools".

5.2.1 Session Players and Sound Engineers

To interact, brainstorm, and exchange cultural perspectives throughout the songwriting and recording phases, there was an opportunity to collaborate with Mikael Vanninen, the talented Finnish drummer from Vörna. Mikael expertly laid down the drum tracks in just one day, he also added some taste to the recording lines, significantly contributing to the smooth execution of our project plan. He added some himself tastes in drums. Additionally, having Niklas Pispalan on hand as the studio engineer that day was immensely beneficial, ensuring the drum recording process went seamlessly and efficiently.



PICTURE 8. Drums set (Tokallou 2023).

We also had a Danish bass player who recorded the bass lines, but for various reasons, we ultimately decided not to use those recordings. Instead, all the bass lines were recorded by me and Mohammad Aghaei. Their combined efforts were instrumental in the project's success.

5.2.2 Final Recording

The recording process took place over multiple sessions using various equipment and techniques. For the guitars, we experimented with micing the amp with Shure SM57 and Shure SM7b, also, using guitar plug-ins to achieve our desired sound matching the music and our vision. We also tested different vocal microphones to find the perfect one that captured the desired sound. Finally, the Neumann U87 was used to record the vocals.



PICTURE 9. Amplifiers, Pedals, and Micing on Guitar Cabinet (Tokallou 2024).

To record the traditional instruments Dotar and Jouhikko, the A-B and X-Y techniques were employed with two ribbons and two unidirectional condenser microphones to achieve a wide sound and capture the full range of the instruments. This method provided a rich and expansive stereo image, essential for preserving the authenticity and depth of traditional sounds.

For a unique and personal sound from the synthesizers, an experimental approach was taken. First, the written synth lines into the song during the initial composition phase as MIDI. creating custom synth sounds on Korg Kronos and then using ESI Midimate eX interface to send the MIDI lines from Logic pro to the Korg for recording in Pro Tools. It's worth mentioning that all the recording, mixing, and mastering was accomplished using the Pro Tools and HDX sound card system in Mediapolis, TAMK's studios.

5.2.3 The Gears

Drums: Mapex full drums set and Paiste cymbals.

- Kick in & out Snare T & B and HH: Midas Legend 502-512 + Mics: Shure Beta 52a, AKG 414, 2×Shure SM57, Oktava MK-012.
- Toms: Audient asp880. 4× Sennheiser MD421.
- Overheads and Rooms: Neve 4081. AKG C414, t.bone RB500.
- Ride: Avalon Vt 737sp. Oktava MK-012.

Bass: Squire Jazz Bass & Ltd B-156 5-Strings.

- Avalon Vt 737sp
- Mark Bass Little Mark Tube

Guitars: PRS SE Torero, Music Man Sterling Majesty, Hendrix, Epiphone Les Paul Model.

- Neve 4081.
- Mesa Boogie Express 5:50 amplifier & Cabinet.
- Shure SM57, Shure SM7B.
- Boss Blues Driver & ZVEX fuzz factory Vexter series Pedals.

Dotar and Jouhikko: Neve 4081. 2*The t.bone RM 700 based on AB technique, 2*Shure SM 81 based on XY technique.

Duduk: Neve 4081. AKG C414.

Synthesizer: Universal Audio Apollo x8. ESI Midimate eX. Korg-Koronos.

Vocals: Neve 4081. Shure SM7B.

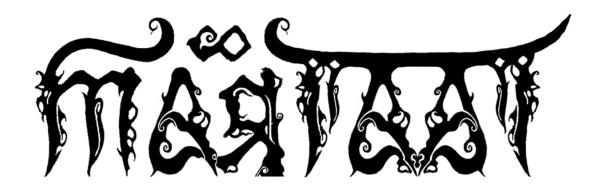


PICTURE 10. Microphones and Guitars (Tokallou 2024).

5.3 Post-production

In post-production, we focused on capturing the energy and dynamics of the instruments and vocals. This often-involved techniques such as editing drum tracks for tightness, sculpting guitar tones with distortion and compression, and creating a powerful and balanced mix. We aimed to maintain a natural sound, embracing minor imperfections to preserve the human feel of the performance while ensuring a polished result to save time and energy in post-production. We avoided using drum triggers and minimized the use of plugins and effects on drums, guitars, and bass. Mastering was crucial to ensure that the music retained its punch and impact across different playback systems.

5.3.1 Logo



PICTURE 11. Martaat Typography (Tokallou 2023)

In line with the project's overarching theme, I incorporated both Iranian and Finnish linear and textual elements into the logo design. This involved harmoniously blending ancient Finnish letters with Persian script, resulting in a unique typography that is presented in English.

5.3.2 Artworks

Drawing from the rich cultural tapestries of both Iran and Finland, the album cover, and booklet were crafted using photographs captured by an Iranian photographer and images taken during our time in Finland. It was paramount for these visuals to call in mind a sense of authenticity and documentary-style realism. However, through design, we seamlessly integrated these photographs into a visual narrative that transcends time and place, mirroring the timeless and universal themes explored in the album's concept and sound. This approach ensured that the images not only complemented the music but also resonated with listeners on a deeper, emotional level.



PICTURE 12. Martaat Booklet (Ghoreyshi 2022)

6 DISCUSSION

In response to the questions raised in the introduction and abstract, it can be stated that the initial step involves producing this album. This process marks the beginning of cultural exchange in the studio, where musicians and sound engineers collaborate closely. Through this collaboration, interviews, and the sharing of cultural knowledge and experiences, we can initiate a meaningful dialogue. By transferring the cultural elements, I carry with me and integrating them with the unique perspectives and traditions of others, we lay the groundwork for creative synergy. Progressive rock music has long been associated with experimentation and pushing the boundaries of musical conventions. By integrating Iranian and Finnish cultural elements into this genre, we not only enrich the sonic palette but also reach a better perception of cultural diversity. In the subsequent initial step, a straightforward example is the incorporation of instruments from these two cultures. This approach naturally sparks curiosity in the audience, prompting questions about the origins and nature of these instruments—much like learning a new language to connect with a different place. For instance, after hearing a demo of a song featuring Jouhikko, many people asked me about it. This interest indicates that when the full album is released, it has the potential to build a dedicated fanbase. Moreover, during live performances, this fusion of cultural elements can bring together diverse audiences to reach unity.

The project also illustrates the broader impact of cultural education through music. Musicians act as cultural ambassadors, introducing audiences to sophisticated art forms and historical legacies. This educational aspect is crucial, especially during social crises, as it helps reach inclusivity. By presenting sophisticated music from an ancient culture, musicians can challenge misconceptions and highlight the richness of their heritage. In live performances, this cultural exchange becomes even more tangible. Musicians travel and perform globally, creating musical dialogues that transcend cultural boundaries. The production of music that incorporates diverse cultural elements can serve as a tool for cultural diplomacy, making mutual understanding and appreciation. In an increasingly globalized world, music has the potential to promote diversity, inclusivity, and tolerance. By embracing cultural diversity in music production, we

can build bridges between nations and promote a more harmonious world. The involvement of both Iranian and Finnish communities in such musical projects further demonstrates the role of music in preserving and exporting cultural heritage and creating a sense of satisfaction among younger generations. The fusion of musical traditions from these two distinct cultures offers a unique opportunity to create music that transcends geographical and cultural boundaries.

Music is like fashion, so it is changing every single day like a new language, and it has the power to transcend political and cultural differences, serving as a universal language that connects people across borders. I can say boldly that this album is the first integration of Iranian and Finnish cultural elements in rock music which represents a significant step towards embracing cultural diversity and promoting intercultural dialogue. It also poses challenges in terms of maintaining authenticity and respecting the integrity of each cultural tradition. In addition to cultural aspects, the thesis also explored advancements in sound engineering during the production of the album. The use of state-of-the-art recording techniques, equipment, and software played a crucial role in achieving the desired sonic aesthetic. However, it is essential to strike a balance between technological innovation and preserving the authenticity of cultural elements. Sound engineering should complement, rather than overshadow, the cultural aspects of the music.

In conclusion, this thesis underscores the vital role of cross-cultural collaboration in music. It highlights how music can serve as a powerful tool for cultural diplomacy, creating mutual respect and understanding. By leveraging the unique sounds and traditions of Iranian and Finnish music, the project not only offers a rich auditory experience but also serves as a platform for cultural dialogue and unity. This approach can help combat harmful stereotypes, promote inclusivity, and create a deeper appreciation of the diversity and complexity of different cultures.

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APPENDICES

Appendix 1. Interview with Kayhan Kalhor

I contacted him to explain my thesis topic and requested an interview. He expressed interest in the topic but suggested that I review his previous interviews and send him only one question, as he was busy composing and preparing for a tour. I complied with his request, but he was ultimately unable to answer my question directly. Instead, he sent me a YouTube link to one of his latest interviews, stating that I could find my answer there. Consequently, I have documented my questions and his responses based on that video, which is referenced accordingly.

1- How can the incorporation of diverse cultural elements in music production contribute to creating mutual understanding and respect among people from different backgrounds and cultures?

I think as you know, it's a difficult world to live and it becomes more difficult by the minute with all problems, appearances, negative things, wars, hatred, stupidity you know, it is because we don't know each other, we don't respect each other much and if we know a certain culture, we're not going to harm it because we going to respect it. so, we do a responsible way to introduce that and be a part of creating that knowledge that goes on among people from different countries, different races, different entities, and that's a very important job. I think when there's a social crisis you know a lot of musicians or artists or writers or actors begin to think about their job and what they're doing and this is what I tell them all the time to my students and to my colleagues and other people who asked me how to do it, they wonder what are we doing you know can we help this situation? and yes we can, but we can do it in a very important way, we could start from the bottom, I believe cultural education is part of what we do. being on stage is not just playing, it's introducing a certain culture to other people this is why we're traveling and then taking this hardship all the time, this is why we're musicians. musicians play in different countries and establish this musical dialogue as Iranians. I would say you know what we're introducing is to tell people we come from a very old culture that is responsible for a lot of Innovations, culture,

and wisdom of the old world. So, this sophisticated culture comes with sophisticated music in an art form. if they're open enough to come to see that concert, they listen to that music, then we've done something, we have introduced them to something valuable and this is why for myself, this is why I'm doing different projects with musicians around the world, with Western classical musicians with North Indian musicians with Turkish musicians or others. projecting that in living in this part of the world because it's important because if somebody comes to my concert with Yoyo Ma for example, they're not people that usually go to my performance, they might know as music true, western classical music, what music is and that is very important to figure of it. but then they follow my music, they see well what this instrument is, and then they might want to get to know it.

2- Could you explain your recording and mixing process when working on albums that involve collaboration with musicians from diverse cultural backgrounds? Can you elaborate on any specific techniques or methods you employed during this process, especially considering the spontaneous and dynamic nature of such performances?

Diabate Toumani and I got invited by Morgenland Festival in Osnabruck Germany and the festival is directed by a very good friend of mine Michael Dreyer who has a vision and he is one of the figures that I respect very much in the world of music, he put together the two of us and so what happened on stage was totally improvised for the first time we just did like 20 minute sound check together with no rehearsal, we liked it, we decided to record it. The record title is "The Sky Is the Same Colour Everywhere", yes I love that title, it's actually a translation of one of my favorite poems in Persian from Mehdi Akhavan-Sales, one of my favorite contemporary poets who has beautiful poems about this and how life is difficult you know and then how people can relate to each other and he has a lot about that and a sky has the same color everywhere, there is a connotation to it, we should respect each other because we're from the same place you know and our Sky you know here in Iran in Africa or wherever it's just blue you know we're the same people, I chose that name because of that lovely poem and the connotation which offers that it's a lovely collaboration.

For example, Here at the Vancouver Folk Festivall with Hamin Honari, and Kiya Tabassian, we choose a melody by one of the most beloved harp players Jalil Shahnaz, it's a very beautiful melody that we start with, but in between we play different things and jump up and play other things, every performance is different things on it and that's the beauty of it, it's like puzzles, a different puzzle that you do each other.

3- How does the experience of being an immigrant musician shape your perspective on cultural identity, community engagement, and the multifaceted nature of modern artistic expression?

I think the Iranian immigrant community tries to bring in some of their past, so the next generation becomes more proud of it than their parents did, I usually have all those young Iranian in my concerts who are the third generation and they're in their twenties, they're students and they bring non-Iranian friends, colleagues or students to introduce them to the original culture, so it means a lot and this is why we have all the pockets of communities who are surviving and they're part of their original culture. but they're part of something else as well, you know in terms of culture, economics, politics. I'm very concerned about what's going on in Iran politically but also in Canada and the US because I used to live in those countries, so, we're all connected, whatever happens in Turkiye and the Middle East, it's going to affect us, the war in Ukraine is going to affect us. So, we are not one-dimensional people anymore, in our modern life, the life of a musician is multi-dimensional. So, I think being an immigrant is very helpful to live in such a society.

I think the most difficult part of my job is making connections with people who have nothing in common with anybody from Iran, I think that's the most difficult part of my job because you know as a modern musician, I'm not the same kind of musician or I don't have the same character or maybe the same kind of Life or the lifestyle that a very well-known and well-respected musician had in the 19th century. we must do a lot of other things we have to do this kind of interview, we must speak several languages, we have to know the world, we have to travel all the time, you know present ourselves as a multi-dimensional person and how successful you are in doing that it helps your music to be heard. it doesn't begin with music itself, it begins with other things that make people listen to your music,

but it was vice versa back then you know people who knew you, because you were a good musician, so, yeah, it's a very different lifestyle.

4- In your opinion, how does music serve as a tool for cultural exchange and understanding? What do you see as the potential impact of cross-cultural musical collaborations on mutual understanding and appreciation between nations, particularly in today's globalized world?

Audience from other culture in that hour (showtime) has some effects, it could be scary sometimes because they're just starting to feel something that they didn't have before and going back to the initial question of like the fact that it's coming from you, coming from a narrative which is right with propaganda right with history right with like this particular moment in this particular time, where a lot of people think like this is the only relationship that these two cultures have ever had and there's just this you know time moves things move and music allows people to feel that, I think technologically you know we have many elements since like twenty, thirty years ago the world is met another world, yeah and you can do whatever you want well more or less and then there is uh artificial intelligence added to that if we were missing it you know um a lot of other Innovations um new things you know but music and the role of music and what it does to your soul and body it stays there and I don't think no matter how advanced we get in this world with technology and science, the role of Music stays and nobody can change it.

1- As a musician who has worked with international artists and has performed in different music festivals with various cultural bases, could you share your approach to integrating different cultural elements into your music production process? From my perspective, with "Emanuel" as a solo album, we can hear the influence of other cultures along with the Finnish culture.

For about 40 years I have been studying what is known as Karelian kantele improvisation, and gradually it has become a part of my everyday life. I have followed academic discussions on the subject and students and musicians working on their interpretations. Basically, all these people – and especially the musicians – are connected by the desire to learn the music of the ancient tradition and at the same time to find a way to produce their own music and express themselves within the tradition. The same is true for me.

Given the enormous changes that have taken place in our society and culture over the last century, it is fair to ask whether we are capable of understanding or reaching the true essence of this ancient music, or whether our attempts are merely staging the tradition. For my part, I have approached the question by combining the information gained from research into the cultural history, individual musicians, instruments, and the recorded music of this tradition, with the information I have gained from the practical experience of trying to perform the music myself.

At the heart of Karelian kantele improvisation, there is this distinctive, hourslong improvisation with an altered state of mind which the original musicians called "soittaa omaa mahtia" – "playing one's own power" (– the word "power" in this context means inner strength and knowledge, and so the term could be translated in English as the "inner power improvisation"). The music is strongly bound to the moment, and its essence as such cannot be reached afterward. Moreover, inner power improvisation is so personal, introverted, and intimate that it is impossible for two people in the same era, let alone different centuries, to share the experience in exactly the same way. Each musician

played his inner self, associations from memory, feelings, and experiences. Thus, it would be against the aesthetics and the original essence of this music if one tried to follow exactly what the earlier musicians played. When I play my inner power improvisation, I can't deny my past, my experiences, and all the music I have heard and learned. Through sub-conscious associations, they will be part of my music and improvisations.

So, in my opinion, the modern derivatives of this music can be seen as a continuation of the tradition. In the same way that the music and the musicians have always been influenced by the surrounding cultures and by contact with people from elsewhere, the tradition is still in a state of change today. The realization of music has always been a creative combination of the freedom of the individual and the influence of the surrounding societies and cultures.

2- Could you discuss projects and research you've undertaken related to cross-cultural music collaboration, such as your work on "Forest of A Thousand Songs" or "Lavender Calm"? Could you discuss any specific challenges you've encountered during the research and the production, and how you've addressed them?

These two albums you mentioned were challenging – well, if not challenging but perhaps requiring a different attitude – because we didn't actually play together: Peter recorded his parts in the US and I in Finland. The first album "Lavender Calm" was more difficult for me since I didn't know Peter yet (he had just asked for collaboration), and I wasn't quite sure how and what to play – what is he expecting and what might work in practice. He had recorded his parts in advance, and I improvised on them. The mixing and editing were done in the US.

The second collaboration with Peter was much easier for me, since now I knew what to do (we also had met earlier and had a performance in the US). I improvised on different kanteles giving lots of space for Peter. Peter played on my recordings for some time before going to the studio where he then improvised all music with a single take. After sending me his files, I mixed the music and added the sounds of ringing stones and wind, etc. So, I think this second album felt easier for me because I had learned to give more space for Peter's flute. I knew that since I would be making the final touch in Finland, I would also be able

to have some fun with the sounds and try to create the atmosphere I was looking for. Whether people know each other well or not, cross-cultural improvisation collaboration requires trust between musicians. You must be able to let go of your music and put it in the hands of another person and see what comes out. You must accept that the end result will be something different.

3- Could you explain your recording and mixing process when working on albums that involve collaboration with musicians from diverse cultural backgrounds or your solo albums that incorporate influences from other cultures? Could you provide details on your technical and practical approach, including any specific techniques or methods?

Not really. I don't think that I have any specific methods. I work the only way I can: by instinct and by improvising. (Not cutting frequencies!)

4- As technology continues to advance, artificial intelligence is increasingly being integrated into various aspects of music production. From your perspective as a musician who values cultural diversity in your work, how do you see the role of artificial intelligence in facilitating cross-cultural collaborations and incorporating diverse cultural elements into music production? Is it being facilitative or helpful, or not?

I really don't know. Time will tell. For now, I have found no need to use AI. But I'm quite old, you know. The younger generation will probably find useful ways to use it.

5- In your opinion, how does music serve as a tool for cultural exchange and understanding? What do you see as the potential impact of cross-cultural musical collaborations on mutual understanding and appreciation between nations, particularly in today's globalized world?

As with any human activity, the impact and nature of cross-cultural collaboration depend on the individuals in each situation. Fruitful work with results that benefit all requires a respectful attitude between the collaborating parties. At its best, music has the ability to inform and communicate with people without the need for a common language. At its worst, music can be used as a tool to subjugate, manipulate, and provoke anger. The outcome is in the hands of those involved.

6- As a music educator, how do you incorporate the value of cultural diversity into your teaching, and what advice do you give to students interested in exploring cross-cultural musical collaborations?

Given that the kantele belongs to the family of Baltic psalteries, it is quite natural for kantele players to learn and play music from related instruments in different countries. Also, since there is not so much composed material for the kantele, it is common for kantele players to seek out and learn music originally composed for other instruments. And, among folk musicians, it is natural to learn songs from around the world.

In my specific area of music, the ancient Karelian kantele improvisation, the inbuilt philosophy guides the musician to accept divergences, unexpected turns, unintended results, and so on, and to find solutions for the music in surprising situations. The philosophy says: that all sounds are equal, and the choices made in the moment are not better or worse, only different possibilities. Thus, the philosophy of music teaches the musician to accept diversity and to find ways and solutions in new musical situations. I don't know if I can give any advice other than "Go for it!"

7- Lastly, how do you envision the future of cross-cultural collaboration in music, and what do you hope to achieve through your ongoing work in this area?

I hope there will be a lot of cross-cultural cooperation, where information about the diversity of musical cultures is spread with respect, where creativity can flourish, and where music can work its magic. I think there will be more and more collaborations in the globalized world. The fear is that with the power of money, all music will start to sound like Western pop music, and the individual musical cultures that have functioned as part of people's identities will disappear. Personally, I just look for music that touches me and takes me in, and it seems that it is usually something strange.

Appendix 3. Interview with Mahsa Vahdat

1- How do you approach incorporating different cultural elements into your music production process? The piece "Sun of Iran" from the album "A Deeper Tone of Longing" can be a good example.

The sun of Iran is a good example because the song is in "Chahargah" (an Iranian form of music). It has been blended with the blues style and it was challenging to mix them because some of the moods blend more flexibly. but here, of course with the arranger, we found a way to connect these two songs. You know the whole project with mighty Sam McClain that led to two albums, "Scent of Reunion", and "A Deeper Tone of Longing" started with poetic dialog between Iranian poet Mohammad Ebrahim Jafari and Norwegian poet and producer Erik Hillestad who of course wrote English text for this project. So, the dialog happened and of course, I also made some new melodies that come from folk or from "Radif" (another Iranian form of music) and we put them together with Mohammad Ebrahim Jafari. he made the new text on the melodies; it added a new dimension to "Scent of Reunion".

In the next project "A Deeper Tone of Longing", the Norwegian singer and composer Sigvart Dagsland made melodies pretty much connected to my melodies. Then Knut Reiersrud another Norwegian musician and guitar player did the arrangement. of course, the arrangement was very much influenced by his blues style and the combination of Iranian instruments like "Ney" and "Kamancheh". Plus, the process of arranging, composing, and choosing melodies. As well as part of all pre-rehearsed and pre-composed during the recording and rehearsal with Sam McClain, many things happened in improvisation, as you know, in both blues and Iranian traditional or classical or regional music, there are many ways to place improvisation. So real dialog in the way happened during the recording and rehearsal with Sam McClain, it was something very amazing, the project was amazing, and it had different dimensions, it was not only musically but at the same time culturally. On the other aspects, expressing some feelings from the past, for example, I had a lot of difficulties as a woman, as a solo singer in Iran, I was very much under restriction, as you may know after the Islamic revolution. Sam McClain also faced a lot of problems in the United States as a black man. Many common things met each other. also, poetic dialogue between the two poets, it's not just about the translation of this or that poem, they dialog, meet sometimes and sometimes they do it separately. they bring different metaphors from their cultures. So, this poetic dialog was in a way a leading force in this project.

2- Can you share your experiences collaborating with musicians from diverse cultural backgrounds, such as the Norwegian/Nordic musicians you worked with on "Enlighten the Night"?

My cross-cultural experience and dialog-based collaboration happened in 2003 when I started together with my sister, we took part in a project "Lullabies from the Axis of Evil" and worked with Norwegian musicians and the poet and producer Erik Hillestad. Since that time, our long-lasting collaboration has started. Then I met many musicians at the time like Knut Reiersrud, who is a blues musician from Norway. I started a long collaboration with Tord Gustavsen, as well as other musicians like "SKRUK choir". We built it during all these years, we built something and now it is happening, the dialogue, the collaboration, and then the interaction happens more organically because we listen to each other. for example, Tord Gustavsen is a jazz musician and connected deeply with the Norwegian folk heritage. The way he blends these two styles gives a special dimension to his music. Very deep and profound. Also, his understanding of music is very deep and open to sensitivity. It was a very mutual listening, and we found our nuances. He became familiar with Iranian music, poetry, and moods. The collaboration happened in a very good organic way. In "Enlighten the Light" the music is swung between the written music and the improvisation part. The arrangement has been made by Atabak Elyasi. During the rehearsal again, there were a lot of improvisation parts between me, Tord Gustavsen, and other musicians, and at the same time, we were loyal to the written music. All these years we grew up in each other's music, you know, me in Norwegian folk, also folk heritage, and them in Iranian and Persian music. So, it's a process of a complex way of approaching and because as you know, Iranian music is based upon a modal system and it has these complex patterns, and the way we meet in this cross-cultural collaboration is so precious and it's a never-ending process.

3- How do you navigate differences in musical styles, traditions, and techniques when collaborating with musicians from different cultural backgrounds? How are the meetings held before the final recording, and how do you prepare for recording?

Yes, we prepared a lot before recording so mostly I made the music and melodies, and then my collaborator can be Tord Gustavsen or other musicians in cross-cultural collaboration, they arrange the music and of course, every album can take 2 or 3 years of the process. For example, I had an album with "SKRUK" choir" which was arranged by Tord Gustavsen, it is the result of much research about music, poetry, culture, and about very many things and a lot of talks. Yes, I prepare everything, and we plan for that, and it goes for recording. The last recording that I had, in 2022, 'Braids of Innocence' was arranged by Atabak Elyasi That who is of course Iranian musician, but he knows a lot about Western music and both Iranian music and he also has a very special vision and philosophy in making harmonies. This also happened with harp players it happened in a kind of 3 years process. All these albums are the result of many years of research on making the melodies, and creativity part. And during the rehearsal and final recording, it was also very interesting. Most of our recording happens in live recordings, most of them in an ensemble. that is very important. Then the interaction is deeper. And mostly we record in a place that is inspiring from an acoustic point of view. And sometimes also in a studio.

4- Can you provide insights into the creative process behind your collaborations with international artists, particularly regarding how ideas are exchanged and synthesized across cultural boundaries?

You know for this project; I think it's very important that we listen to each other. As I said, we prepare in advance, everything, melodies. but then during the rehearsal, things can get lives. And we exchange a lot of ideas. We are open to different perspectives during this dialog. So, it happens through many discussions and rehearsals and a lot of experimenting. We want to bring this diverse influence, into a very seamless musical expression. In a way we want to bring our common and our different elements but in a very coherent way.

5- What challenges have you encountered when blending Iranian and other cultural elements in your music, and how have you overcome them?

Yes, there are all these challenges, but challenges are good, and we are all open to them. And without challenge when it goes easily, there is no meaning. I grew up with a rhythmic pattern, sometimes in the rhythmic patterns, their understanding can be different, so we need to talk more. Also, this quarter tone can be a challenge, and how we can create a platform or dialog that they don't clash. So, we bring different solutions for this also. Also, sometimes in understanding the text and culture behind it, especially the old text like hafiz like Rumi. Translating this text could be challenging and bringing the real meaning of poems and the culture behind them needs a big research and knowledge about that. The producer I worked with really learned about that, he came to Iran, and he learned a lot, he even went to the tombs of these poets and understood how poetry in Iran is important. And he reflected this to the musician. And the role of the producer Erik is very important. We constantly learn from each other.

6- Could you discuss any specific techniques or methods you employ to ensure authenticity and respect when integrating cultural elements from various traditions into your music?

In creating music, I have been myself all these years. And the music that I create is very much fed by my life, different aspects of my life. When I choose a poem, I really should connect to that, and the poem should be connected to some part of my life. Spiritual, political, social, and emotional. When I create, I am so sincere, because creativity should come from the sincere part of your entity. When I want to choose a mode or a melody, of course sometimes I consider if the blend is good, and of course, I take challenges sometimes, I don't do just the melodies or modes that are easier to work, sometimes do the risk and then I bring to the musician, we discuss, we listen to each other, we experiment, it's a real dialog here. When the dialog happens through art, it is very much based on dignity and respect and our common feeling, we don't want to bring a lot about our differences. When I create, I am very sincere. I have witnessed myself during all these years, every album and music that I create belongs to a phase of my life, my questions, my doubts, my anxiety, my sorrow, my hope, everything, are

reflected there. And the musicians that I work with, have a lot to share. We love each other's music, so because of this, we are open to listening to each other and experimenting and taking the challenges and risks and everything, to reach a very seamless and unique landscape.

7- How do you see the role of music in building up understanding and appreciation between nations, especially in today's globalized world? In what ways do you believe music can serve as a bridge between cultures?

I strongly believe that music is a very strong element in bringing people together. Because of this, the oppressors are afraid of music, because it makes people closer. I experienced the magic and power of music when I collaborated with other musicians, and this is the way that friendship became more strong and profound. I think that in this world we need these dialog projects because many people immigrated and are in a different part of the world. I have been working with many musicians. Iranian, Norwegian, American, Turkish, and many others. I found this collaboration so precious, and I think that music and art create a bridge based on dignity and respect. It's very important. I strongly believe in art and music for bringing people together, and for removing fears. Because politicians or religious leaders, they like to make people separate and they are afraid of people uniting. Music and art can be scary for them. During these centuries, it has been like this. I believe in the power of art and music. For example, when I sing in different concerts, I have very many non-Iranian audiences, the music and the interaction between me and the audience is so strong. So, music can affect in a very direct way, it's so powerful. It can transcend the language barriers. It can connect people on an emotional level.

8- What advice would you give to aspiring music producers and artists who aim to create culturally diverse and inclusive music?

Of course, I cannot advise anybody, everybody is different. According to my experience, sometimes when I work with my students who want to be professional musicians, I always tell them to be fearless and be yourself, be sincere. Because creativity or music can create a safe zone for you. Through music, you can be yourself, and reveal your secret, your vulnerability, and your

strength. So, it's so important to believe in the power of creativity and to be fearless, experiment, and be open to sensitivity, to dialog. This is our world. Then we make a better world. We can't change the whole world, I know, but we can make small changes around us.

9- Lastly, how do you envision the future of cross-cultural collaboration in music, and what do you hope to achieve through your ongoing work in this area?

I hope that I can continue this cross-cultural collaboration because this is something that I built many years ago and it is an endless path, it opens a lot of new doors, new landscapes, and new ways of expression. The way that I did, all these years, my expression has been affected a lot by these collaborations. If I didn't meet Tord Gustavson or Erik Hillestad I was another person. It's important to be open and to search and be open to challenges, risks, and experiments. Sometimes some ideas cannot work, and we should not be fearful of that, we should experiment with that. It's like a path we should experiment with. I hope I can do this cross-cultural collaboration I recently met new musicians in my life, from Armenia, from Turkey, so I am looking forward to working with them and seeing how these expressions go to where. Because I have been singing for both Iranian and non-Iranian audiences. So, I am always searching, for how I can bring the feeling of hope, sorrow, or happiness in music beyond language, this is something that helped me a lot in my expression. So, it's very important to be open. Music has this power; we cannot deny it. And I think the oppressors of music know about this matter. I hope I encourage many of my students to do these collaborations and I try to give them my experience also. I led some projects with my students, I gave them the experiences that I had, how they can dialog, and how they can do this cross-cultural collaboration.

Appendix 4. Interview with Jussi Reijonen

1- As a musician who has worked with international artists and has performed in different music festivals with various cultural bases, could you share your approach to integrating different cultural elements into your music production process? I am boldly saying that in all your albums, we can hear the influence of other cultures along with the Finnish culture. Especially "Un" and the latest one "Kolme Toista".

Defining what is 'other' and from whose perspective is challenging for me. I was born on the Arctic Circle in Rovaniemi in northern Finland, and between the ages of 6 and 15, lived in Finland, Jordan, Tanzania, Oman, and Lebanon. Most of my primary education was in international schools in countries other than Finland.

My entire value system – my ethical values, behavior, social code and my musical aesthetics – has been shaped by influences not only from Finland but all the other cultures that have molded me, and it is not clear to me what is 'other' from such a hybrid position. My musical practice as a composer, improviser, arranger, and collaborator, is influenced by all these experiences. I do not feel that I am in a position to say that I represent any one culture, Finnish or otherwise; due to my background, I feel I exist in-between, and it's difficult to define that.

2- Could you discuss projects and research you've undertaken related to cross-cultural music collaboration, such as your work on "Endless Journey" this one is a bit different or "Neotolia"? Could you discuss any specific challenges you've encountered during the research and the production, and how you've addressed them?

In both Yazhi Guo's "Endless Journey" and with Neotolia, my role was that of collaborator/session musician. Whenever I work in collaboration with another artist's vision, I am there to serve whatever that is, so it's always a negotiation between my aesthetics, and the aesthetics of the artists and the project. I am trying as much as I can to put the music above everything, so subjectively to varying degrees of success, I am trying always to serve the music first and foremost.

Both the Neotolia album we did and Yazhi Guo's album came through collaborating with Utar Artun who is a Turkish pianist, percussionist, and composer who is a long-time friend of mine and who I consider family. Utar has been the musical director for Neotolia together with Nazan Nihal, and I think in the case of "Endless Journey", he arranged some of the pieces, and as I remember Yicheng Wu arranged some. I was trying to fulfill what Utar and Nazan's vision was as best I could on guitar and oud with Neotolia, and on "Endless Journey", I think I played classical guitar on one piece and oud on one of Utar's compositions, "Turkish Delight".

With Neotolia, the music is very influenced by the music of Turkey in many ways, either through rearrangements of Turkish repertoire by Utar and/or Nazan, or their original compositions. The challenge here is that I am not that familiar with Turkish makam, since my influences are from the school of Arabic maqam, like Umm Kulthum, Farid al Atrache, Wadih El Safi, my mentor Simon Shaheen, Ahmad Al Khatib, etc. (Although Ahmad is also influenced by Iraqi maqam, so his is a slightly different handwriting.) I often felt that I am a foreigner in a Turkish band trying to fit in, but ending up sounding more Arabic than Turkish. But when you work with somebody like Utar, he is very open to being just yourself, so I think he found it somehow interesting, I suppose.

Then when it comes to my own projects, I think the challenge is always how to balance the different influences, different aesthetics, different intonations, and different aesthetics of rhythmic phrasing. What I try to go for is some kind of emulsified counterpoint of all these different influences and aesthetics – which is not a claim to say I have succeeded, but that is what I am trying to strive towards. I am trying to find a balance where a lot of these influences can contrapuntally interact and co-exist and stimulate each other.

3- Could you explain your recording and mixing process when working on albums that involve collaboration with musicians from diverse cultures? Could you provide details on your technical and practical approach, including any specific techniques or methods?

I try to tailor it to what I feel the music needs. The one guiding question I always ask myself is, "What is necessary?" Of course, it's a subjective interpretation of

'what does the music need,' but I don't know another way so far to approach it than to start from that question, and that informs the music production as well. So, it's a compositional approach, an arrangement approach, an orchestration approach, improvisational approach, production approach.

As a personal preference overall, I always prefer to record live at the same time with the other musicians, whoever they are, whatever the context. I find that there is a lot of subtle interactive counterpoint, social counterpoint, and energy counterpoint that happens when things are being done live, and I feel that my experience has always been richer – and I think the music has benefited from – recording live.

Finding a good studio or space to record in and working with a sound engineer who can capture it who is also psychologically savvy is also important. And that also goes for choosing the musical collaborators that I interact with. For me, music is deeply personal. With my own compositions, especially, sharing that space with quote-unquote "session players" doesn't work, there needs to be something deeper there. The musicians on "Three Seconds | Kolme Toista" are family to me, every single one of them.

4- How do you start with songwriting and expand your idea? and how do you get ready to select the musicians prior to the project?

For me, it's always about doing what is necessary. I don't follow just one approach; I try to do whatever is required. My experience so far has been that I stumble upon fragments of ideas. They can come through just playing, hearing something in my head, or reading something, and some kind of conceptual idea comes to me. I document these fragments. Sometimes these fragments come from improvising on an instrument.

As these kinds of fragments start to accumulate, I usually feel stronger about certain fragments than others. It's a strong dichotomy, maybe, but I seem to divide them into ideas that are functional and ones that have some kind of deeper meaning, even if I don't quite know what it is. I have an intuition that there is

something special there. The functional ones I just throw away because I am not interested in creating functional music. Sometimes going through the functional ones can influence the discovery of ones that have some intuitive value over time. When I have the fragments, I start to play with them. What I discover seems to be some kind of subconscious process that is working, even if I am unaware of it.

In the case of "Three Seconds," the intuitively valuable fragments I gathered over several years turned out to be variations of similar ideas, so they were very interrelated. When I started playing with those, they started to generate more music through discovering their interrelations intuitively and through applying compositional techniques, manipulating them, creating variations, and experimenting and improvising with them. It was like trying to put together ten thousand pieces of a puzzle on a board. Over time it started to form what I perceived to be a whole, rather than a collection of fragments. Then, that started to suggest instrumentation to me. I began to work on the instrumentation, playing with sound, color, arranging, and orchestration. Then from there, it became very clear to me who the players needed to be; it was like a bolt of lightning. I thought, for violin, it has to be Layth Sidiq, for cello Naseem Alatrash, for bass Kyle Miles, and so forth. I was fortunate that everybody was very enthusiastic about the project. Then the rest of it was just the joy of writing for these particular people. It almost completed itself in a way.

5- As technology continues to advance, artificial intelligence is increasingly being integrated into various aspects of music production. From your perspective as a musician who values cultural diversity in your work, how do you see the role of artificial intelligence in facilitating cross-cultural collaborations and incorporating diverse cultural elements into music production? Is it being facilitative or helpful, or not?

It's a very deep very broad question, I don't have a definitive answer for you at the moment. If we think of AI as operating based on language modeling and through synthesis, there is a very interesting parallel between that and the syntax of different musical cultural aesthetics and bringing them together into a synthesis which is kind of what I do. I see a lot of similar mechanisms intuitively in what AI does and what I have been trying to do, but I simply do not know about the details

of AI to definitively state that, okay this is absolutely parallel, but from a distance intuitively, I find it fascinating that I do observe such a parallel.

6- In your opinion, how does music serve as a tool for cultural exchange and understanding? What do you see as the potential impact of cross-cultural musical collaborations on mutual understanding and appreciation between nations, particularly in today's globalized world?

For me, cross-cultural musical collaboration is a phenomenon that has to do with the interaction between what are essentially different value systems. There are certain combinations and collisions of value systems that are more compatible than others and I think we have to be honest about that. I say that in the sense that whether it's with different political views people have, or different metaphysical views people have, interaction between different value systems can create different degrees of tension or different degrees of resonance. I find that fascinating as a phenomenon.

And sometimes it might be that it's just not the right circumstances. If you think of chemistry, certain elements may not actually combine until the temperature, pressure or other environmental factors are correct.

Although there are a lot of challenges in this kind of work, there is a lot of creative potential there. We definitely learn a lot about the different value systems that are interacting, and I think that's the value of doing this. For me, music as a medium becomes a teacher.

7- Lastly, how do you envision the future of cross-cultural collaboration in music, and what do you hope to achieve through your ongoing work in this area?

I think that as long as people use music as a medium of self-expression, music will continue to reflect more and more a synthesis of influences because that seems to be the direction the world is going. I think that because people are interacting more and more through social media and technology and there is so much more emigration and immigration, I think that there is going to be a lot more of this synthesis of different aesthetic influences. I think it's a very interesting time.

Through what I am doing in documenting my work in recordings and through my doctoral work, all I can hope for is that it serves as one possible example of how one might go about this. I don't see it as a definitive example of anything. I see my role as just trying to get deeper into understanding music as a phenomenon and trying to go deeper and deeper and deeper, and through doing that hopefully to provoke some necessary conversations about these kind of meetings of values.

Appendix 5. Practical Part: "Non-Technical Teleportation of a Vase"

1. Sound Cloud Link of the EP rough mixes:

https://on.soundcloud.com/n5AAEKBG6gWD24Y28