MİAM COLLOQUIUM FALL 2021

January 24-25, 2022
Conducted online using Zoom

Organizing Committee

Yelda Özgen Öztürk
E. Şirin Özgün Tanır
Robert O. Beahrs

Welcome to MIAM's fourth online colloquium! This event is a way for us to gather as a community and share work that was created during the fall 2021 semester. All sessions will take place over Zoom and are open to MIAM faculty and students. One faculty moderator will host each Zoom session and be in charge of managing the time for the session and coordinating the discussion along with the other faculty respondent. **Please use Zoom links provided for each day and join a few minutes before the specified start time.** Presenters should be prepared to share their work from their own computer connections. Audience members, please remember to join or leave the sessions respectfully and mute your microphones when presentations are in progress. Please signal to the moderator or send a chat message in order to ask a question during the discussion. We appreciate your patience as we deal with the inevitable technical issues that may arise during this online event.

Monday, January 24th
ZOOM SESSION - DAY 1 (click here to join)

Tuesday, January 25th
ZOOM SESSION - DAY 2 (click here to join)

PROGRAM

Monday, January 24th

8:45   Presenters and respondents for the first session, please log in.

9:00-10:30   Film Music and Sound Design

Alper Arslan   Perspective as an Audiovisual Concept: Film Sound Analysis in Contemporary Hollywood Films

Orhun Barış   The Evolution of Iconic Sound Design Elements: Star Wars Case Study

Ayşe Yörükoğlu   The Sonic Journey of The Hero/ine

Respondents: Taylan Özdemir (moderator), Robert O. Beahrs

10:30-10:45 Break

10:30   Presenters and respondents for the next session, please log in.

10:45-12:15   Sociomusical Studies

Nikos Papageorgiou   The Rum Orthodox Church Music inside the Patriarchal Church of Saint George at Phanar, Istanbul

H. Miray Eslek   A Field Study on Music, Culture, and Language in Sephardic Folk Songs

Bardia Hafizi   Modernity and Iran: A historical narrative of rhythm in early 20th century music

Respondents: Robert O. Beahrs (moderator), Jane Harrison

12:15 Lunch Break

12:45   Presenters and respondents for the next session, please log in.

13:00-14:30   Computational Approaches

Ilgın İçözü   A Practice of Object-Oriented Audio Programming Languages as Scores for Electronics

Yavuz Buruk   Generative Models Used in Artificial Intelligence to Create Music: WaveGAN, MuseGAN and MusicVAE

Kerem Altaylar   Digital Augmentation of Tone System Theories: A Potential Enhancement, or A Musical Illusion?

Respondents: Konstantinos Vasilakos (moderator), Gökhan Deneç

14:30-14:45 Break

14:30   Presenters and respondents for the next session, please log in.

14:45-16:15   **Rethinking Interaction**

Robert McDonald   The Piano in Central Asian Music: Indigenous Stories Told with a Global Instrument

Ege Ülgen   The use of local music elements of Turkey in Jazz Music: The Case Study of the album "JazzArk" by Baki Duyarlar

Sinay Mollamustafaoğlu   Investigation of the Factors Involved in Improving Musical Expression via Interactive Communication in SATB Ensembles

Respondents: Jane Harrison (moderator), Jerfi Aji

16:15-16:30 Break

16:15   Presenters and respondents for the next session, please log in.

16:30-18:00   **Sounding in Relation**

Mert Alperten   Removing Environmental Factors of a Recording with Impulse Response Technique

Berk Ilkıç   How Car Engine Sounds in Forza Horizon 5 Affects Player's Driving Behaviour in the Game

Mert Soykan   Representation in Music

Respondents: Manolis Ekmektsoglou (moderator), Can Karadoğan

Tuesday, January 25th

8:45   Presenters and respondents for the next session, please log in.

9:00-10:30   **New Perspectives in Music Research: Part A**

  I.   Digital Humanities Tools and Areas of Usage in Social Science
       Baran Çakır, İrem Hayrioğlu, Ataberk Fatih Genç, Ilgar Gökhan, H. Miray Eslek

  II. Open Access Resources in Music Research
       Cansu Ülker, Dirun Ergin, Günseli Naz Ferel, Nikos Papageorgiou, Yazan
       Nusaibah

  III. Digital and Graphic Tools
       Ayça Akkın, Ezgi Durak, Kerem Duru, Çoruh Şimşek, İdil Yentür

Respondents: Paul Whitehead (moderator), Robert O. Beahrs

10:30-10:45 Break

10:30   Presenters and respondents for the next session, please log in.

10:45-12:15   **Critical Organology**

Ruşen Can Acet   Hybrid Crafting for Lutherie: 3D Printing Applications

Nazlı Başak Başak   Extended Violin Techniques

Behzat Cem Günenç   "Raffi Arslanyan" (Video Documentary)

Respondents: Tolgahan Çoğulu (moderator), Manolis Ekmektsoglou

12:15 Lunch Break

12:45   Presenters and respondents for the next session, please log in.

13:00-14:30   **New Perspectives in Music Research: Part B**

  IV. Sound Recording Archives
       Mert Bozdemir, Sevil Doğan, Bekir Yılmaz, Berkay Köksal

  V.   Using Social Media as Research Data

Efe Aslan, Fatma Gamze Kiremitçi, Gonca Feride Varol, Senay Yılmaz, Yaşar Ersin Çalkılıç

VI. Visualization Tools for Musical Sound and Experience
Fatih Açıkgöz, Tuğçe Albayrak, Meriç Çetin Öztürk, Batu Certel, Koray Soylu, Furkan Temel

Respondents: Yelda Özgen Öztürk (moderator), Konstantinos Vasilakos

14:30-14:45 Break

14:30 Presenters and respondents for the next session, please log in.

14:45-16:15 **Music and the Marketplace**

Emre Çakar The Role of Mastering Services in Democratizing the Music Industry

Bilge Günay A Comparative Study on Market-Centric Payment System (Pro Rata) and User-Centric Payment System (UCPS) Distribution Models

Gonca Feride Varol The Usage and Effects of Social Media on Neo Shamanic Ceremonies

Respondents: Hakan Kurşun (moderator), Paul Whitehead

16:15-16:30 Break

16:15 Presenters and respondents for the next session, please log in.

16:30-18:00 **Place-Based Musicking**

Danny Fratina "Bb, in Isolation": Authentic Music-Making Despite the Pandemic

Gabriel Meidinger Kadiköy Sessions: An Artistic Community Project in Kadiköy

Metehan Köktürk "Playing on the Edge"

Respondents: Jerfi Aji (moderator), Amy Salsgiver

ABSTRACTS

Hybrid Crafting for Lutherie: 3D Printing Applications
Ruşen Can Acet

Lutherie is the art of making musical instruments. Today's maker culture evaluates the musical instrument-making traditions. New tools and techniques give some opportunities to luthiers. With the technological development of power tools, instrument makers began to use compact and more sensitive tools by combining them with conventional equipment. This saves time and improves the work quality for sure.

Additive manufacturing is also called 3D printing and has wide usage in the industry. Besides its massive professional usage, it is a practical tool in maker spaces and schools' laboratories. 3D printing is a new tool for musical instrument workshops. It is very useful to create jigs, templates, spare parts, and even some instrument parts or whole instruments as well.

In this study, 3D printing will be discussed with some hands-on practices in the lutherie environment. The design and manufacturing process of some jigs made for kabak kemane and kamancha making will be shown. The improvements that have been achieved will be discussed. In addition to that, a recently built instrument, Lego Microtonal Guitar, will be introduced in terms of the making process by using 3D printing technology.

Removing Environmental Factors of a Recording with Impulse Response Technique
Mert Alperten

The introduction of the first commercial digital audio workstation in the '90s has changed the recording focus from large scale studios to more digital-based approaches. One by one all the unique aspects of a recording studio has lost their importance to a degree, examples can be noted as reverberation chambers, editing tools, mixers, hardware tools (e.g. compressors, limiters, preamps etc.), amps, room acoustics can all be simulated in plug-in form for the use of a wider demography. There is an increasing demand for the improved modeling and emulation of the hardware setup as mixing in your room is now being the preferred method for recording. The recording environment is one of the biggest contemporary problems of this era of the rising trend in home recordings. Problems like bad room reflections, bad room mods, bad microphones, cheap preamps and interfaces are all included in this so-called "bad recording environment" of the imagined home recording artist. Buying good microphones, preamps, and treating a room to improve your recording environment are all expensive solutions, hence this study seeks an alternative solution with a reverse impulse response technique. The impulse response technique is widely used on DI signals of guitars to simulate amps and microphones, because DI signals are recorded without any environmental interference, it

is easy to dress them into a recording environment. If there would be a way to record an acoustic sound source without its environment as a "dry signal"; using impulse response techniques on these recordings for changing their environment would be very easy in theory. The aim of this study is to use a reverse impulse response technique to remove a recording from its environment to attain this so-called "dry signal" so that it would be susceptible to be processed into a better recording environment.

Digital Augmentation of Tone System Theories: A Potential Enhancement, or A Musical Illusion?
Kerem Altaylar

The study of the mathematical properties of sound and understanding them in the context of music have a long history going back nearly two and a half millennia. There have been many systems, formulations, theories, and approaches to this subject by many scholars and artists. Two of the current studies to comprehensively cover this discipline are *Mathematical-Physical Properties of Musical Tone Systems* by Bruno J. Gruber (2005) and *The Mathematical Theory of Tone Systems* by Jan Haluska (2003). Many pedestal formulations trying to explain the musical systems and mathematical representations of sound are included in these works with an effort to cover interdisciplinary uncertainties and dilemmas mostly from euro-genetic perspectives. This presentation focuses on the transformation of some of the formulas into computer algorithms and augmenting the usage of them with programming concepts such as real-time manipulation, iteration, and conditionality. The main question of these transformations is how digital augmentation of these systems can enhance the method, environment and mentality of musical concepts such as composition, improvisation, ensemble, performance and many more, both practically and theoretically.

This presentation is a part of a potentially more general research in which the examples are not only from tone systems, but also from various musical concepts. These digital transformations will be evaluated by musicians and audiences to gather data regarding their reliability to the concepts and potential to create purely digitized musical systems, environments and network systems. This study will be designed in the form of a survey or in a different data gathering method. Besides the evaluation of the data from the surveys by human recognition, there will be a special emphasis to include machine learning models such as regression models or neural networks to process the gathered data and find potential usages of them to enrich and empower the digitized musical concepts.

Perspective as an Audiovisual Concept: Film Sound Analysis in Contemporary Hollywood Films
Alper Arslan

The relative lack of attention to sound in film studies is a well-known phenomenon. Sound has long been a neglected subject in film studies. However, the sound constructs the space, time, and context of the filmic reality. This research aims to provide an analytical tool to analyze films in terms of audition which is one of the most undervalued concepts of Michel Chion. Chion derived this concept from the cinematic point of view and made a sonic twist to the concept of perspective to consider how the spectator is positioned through what is seen on the screen and what is heard from the speakers. This article looks at Chion's conceptual framework for contemporary Hollywood films to discuss the role of sound in constructing the perspective in cinema in terms of the timbral and spatial characteristics of the film soundtrack. The empirical starting point for the analysis is a study of Academy Award-winning films for the best sound editing and best sound mixing in the last ten years. The method can be described as the mixture of traditional film analysis as well as spatial and timbral visualizers of sound, analyzing how point of view is constructed through unique combinations of sound and image. This paper will analyze the cinematic point of view as an audiovisual concept that should be analyzed not only with the images but also within the audio-visual structure.

Keywords: Film sound, Point of audition, Point of view, Spatialization, Sonic perspective, Audiovisual contract.

The Evolution of Iconic Sound Design Elements: Star Wars Case Study
Orhun Barış

Star Wars is considered to be one of the biggest if not the biggest fantasy franchise in pop culture. One of the most striking aspects of the movies that helped with this was the exceptional sound design. From the clash of lightsabers to Darth Vader's breathing, many sounds from the original trilogy have become classics. Over the years, many technological advancements have been made in the field of filmmaking and therefore in the field of sound design. One example would be the ever-growing capabilities of digital tools and audio workstations. This gives birth to the question of how the sounds from Star Wars, which are now considered highly iconic, survived the years. This research examines the evolution of a certain sound design element from Star Wars movies and tv-series (1977 to 2020). By doing so, I aim to shed light on how an iconic sound from a franchise that is long-established, such as Star Wars, can undergo years later and how an audience reacts to it. The main method is to select a sound element and extract audio samples of it from the audiovisual works in the given period. Two factors contribute to the selection process. The chosen sound element needs to be considered iconic and it needs to be isolated enough to be extracted from the scenes. Next, comparisons between the two versions are made to spot differences. Then what follows is a listening experiment that exposes the findings to an audience that consist of fans of the franchise to measure their perception with the use of surveys. At this point, it is important to state

that the current version of the research is actually a part of a wider research with a plethora of sounds and with a larger, diverse audience.

Extended Violin Techniques
Nazlı Başak Başak

This presentation examines three books on extended violin techniques that were written in the last 30 years. These books are *The violin harmonics: classification and new techniques* by Enzo Porta (1985); *The contemporary violin: extended performance techniques* by Allen and Patricia Strange (2001); and *The techniques of violin playing* by Irvine Arditti and Robert HP Platz (2013). The reason behind this choice is that they are useful tools to support the learning, understanding, and teaching of 20th century extended violin playing techniques. I have arrived at the conclusion that books and methods focusing on specific topics are of significant educational value and that providing a technical and methodical approach along with practical examples contributes to a holistic understanding of the matter at hand. Offering detailed descriptions and demonstrations, the authors of these books not only share their own experiences through examples, but also guide those who are interested in using them through their demonstrations and explanations of the techniques. Thus, they play a significant role in ensuring the proper performance of the pieces composed using these techniques as they help clarify the expectations and intentions of the composers. The guidance offered in them is highly relevant and valuable as it builds a bridge between theory and practice. Featuring a high number of detailed explanations on the execution of lesser-known techniques which are hard to perceive at first glance, rather than just general examples focused on violin playing, these books fill an important gap in terms of providing a general perspective and guidance on the techniques. Considering the scarcity of Turkish literature and the challenges of accessing comprehensive information and guidance on the 20th century extended violin playing techniques, I believe that working on a book to compensate for this would be a good project to work on in the future.

Keywords: Violin, Extended techniques, Performance.

Generative Models Used in Artificial Intelligence to Create Music: WaveGAN, MuseGAN and MusicVAE
Yavuz Buruk

The developments in computer technology such as increasing computing power in devices and cloud systems help musicians in the music production process including music creation, recording, mixing and mastering. One of the novel areas is the music generation using artificial intelligence and machine learning. Deep learning is the class of machine learning algorithms that uses multiple stacked layers of processing units to learn high-level representations of the data. Generative models in deep learning are used to create data with probabilistic models. Generative adversarial networks (GAN) and variational autoencoders (VAE) are the mostly used generative models. GAN is a

class of machine learning frameworks designed by Ian Goodfellow et.al. in 2014. GAN networks include 2 neural networks where one neural network is creating data and the other one is trying to discriminate whether the generated data is real or fake. VAEs consist of 2 parts, the encoder and the decoder. The encoder compresses the input into a multivariate latent distribution space and then the decoder decompresses the encoded input to the original size as accurately as possible. VAEs make use of this latent space to generate data. GANs and VAEs are mainly used for creating images but they have been used in generating audio in recent years.

In this presentation, we will examine 3 different generative approaches for audio waveform and music creation. These are WaveGAN, MuseGAN and MusicVAE. WaveGAN and MuseGAN are specific GAN models to create music. WaveGAN is capable of synthesizing audio waveforms. MuseGAN generates polyphonic music of multiple tracks using MIDI files. MusicVAE is created by Magenta, Google and based on variational autoencoders to create palettes for blending and exploring musical scores. We will briefly look at the theoretical framework of these 3 models. We will explore computer applications on Python and PyTorch platforms. We will listen to different examples of musical pieces created by these methods. We will discuss how we can use them in sonification.

The Role of Mastering Services in Democratizing the Music Industry
Emre Çakar

With the democratization of the music industry in the 21st century, the production and listening habits of music have changed. Streaming services, which allow listeners to listen to whatever they want freely, with little or no expense, have been one of the biggest drivers of democratization. Meanwhile, the same streaming services and digital publishers have introduced a possibility for DIY (do it yourself) musicians to directly upload music at very little expense, without any curation. Thus, the clarity between the professional and amateur musicians began to decrease. As the actors in the music industry realized that DIY musicians were boosting the economy, music technology companies started creating simple, quick and affordable creator tools for them. Today, the music industry is encouraging musicians to produce as much and often as possible. Music production that used to be done only through major studios and labels, is now enabled by creator tools for independent musicians to produce easily. Cloud-based instant mastering services, which is the focus of this research, are one of the first creative tools that were offered for independent musicians with the claim that they are affordable, fast, and have a quality close to professional mastering made by human engineers. Although many of these services state that their solutions cannot replace mastering engineers, they receive a lot of criticism that as the use of these services increases, non-human algorithms will affect music culture. However, this criticism does not prevent technology companies from improving instant mastering and developing new services. We see that many instant mastering companies have added new services such as collaboration, distribution and marketing, which are topics that concern DIY

musicians. It seems that instant mastering will not be the only reason to change the music culture, but one of the tools that strongly support that change.

A Field Study on Music, Culture, and Language in Sephardic Folk Songs
H. Miray Eslek

In this research, Sephardic culture and its music are examined through Sephardic Folk Songs. These songs have simple and plain language and they are related to daily life which carry the spirit of Anatolian, Balkan and Mediterranean geography. The Sephardic culture's ability to establish close relations with many communities through immigration, and cultural diversity is found in the lyrics and structure of the music. While stating that Sephardic music is a whole consisting of modal, religious, *romances* and *kantikas*, in this research; Sephardic Folk Songs are considered as references to songs that describe daily life and the problems of daily life issues are discussed such as wedding, henna, birth, death, circumcision feast, loneliness, etc. Historically, the story of each song goes through oral history, archives and compilation studies. Archival, documentary and art studies about the Ladino (Judeo - Spanish), which now we are facing to lose, open new headlines for research in the field of social sciences and ethnomusicology. For this research, in-depth interviews were conducted with Sephardic artists, musicians and academicians who know Jewish culture and were born into that culture.

"Bb, in Isolation": Authentic Music-Making Despite the Pandemic
Danny Fratina

This presentation focuses on a composition/album titled "Bb, in Isolation" that I wrote and recorded between May 2020 and September 2021. The title composition, inspired by early minimalism and avant-garde Black American music, was designed for players to improvise within an open framework that required only a unifying single starting pitch for each player. Coming from the Miles Davis approach of avoiding multiple studio takes to better capture a player creating in the moment before they have a chance to overthink the piece, Bb, in Isolation was pitched to players as an experiment in sightreading to prevent bias and preparation. Because all 12 involved players were working remotely, to simulate the sight-reading experience at home, sheet music was emailed only after a designated time when their home recording setup was already rolling, so that there were only a few seconds between seeing the music for the first time and performing. Originally written as a reaction against the early pandemic recording trend that saw musicians multitracking parts of an ensemble piece with a false sense of socialization, Bb, in Isolation was an attempt to find more authentic ways to collaborate and improvise. The presentation further details the process and challenges of writing, communicating, and

recording the project, and poses questions of durability and the practicality of reusing this music-making approach in the future, with or without social isolation.

A Comparative Study on Market-Centric Payment System (Pro Rata) and User-Centric Payment System (UCPS) Distribution Models
Bilge Günay

This research consists of a comparative study on Market-Centric Payment System (Pro Rata) and User-Centric Payment System (UCPS) distribution models of streaming royalties. The concept of subscribing to music streaming platforms to access a piece of music rather than purchasing to own a piece of music has not only changed how we consume music but it also changed the way how artists should earn revenue from their royalties. Within years, revenue shares from music streaming have increased astronomically and there is an ongoing discussion about the lack of transparency of royalty distribution of the streaming services, especially the ones that use the Market-Centric Payment System (Pro Rata) model which only favours only top-level streamed artists. This study focuses on discussing how the current Market-Centric Payment System (Pro Rata) model works and makes comparison with an alternative distribution model, User-Centric Payment System. The data of distribution models have been collected from Digital Media Finland's study in 2017 and a study from Centre National de la Musique, commissioned by the French Ministry of Culture in 2021. To understand which one is the most suitable model for all artists, distribution models should address transparently at all points and most equitably as possible. It is clear that current distribution models do not conduct revenue shares equally. Therefore it needs to be improved or transformed into another distribution model.

Keywords: Royalty distribution, Music streaming, Market-centric payment system, User-centric payment system, Distribution models.

"Raffi Arslanyan" (Video Documentary)
Behzat Cem Günenç

In the late 70s, when the classical guitar was in its golden age in the world, its first steps were being taken in our country. The first academic department had been recently opened and the art of guitar had serious difficulties in importing guitars, accessing scores and recordings.

To be honest, the guitar legacy we have today is thanks to the personal efforts of Greek guitarist Andrea Paleologos and the few students he has trained. Raffi Arslanyan is one of the most important of these students. Arslanyan has trained many of today's important educators and award-winning artists in the guitar society. He also kept the guitar scene of Turkey alive throughout his life as the pioneer of classical guitar.

Despite these evolutionary developments, detailed historical research studies have not been conducted on the period from the foundation of the Republic to the 70s and the important figures of the period. Unfortunately, this great lack of information is still not filled today.

This study is the first and most detailed biographical study about the most important figure alive today in Turkish guitar history. In the study, all the details about Raffi Arslanyan were narrated through him and his family. Additionally, important information about the 70s and 80s was also confirmed by Raffi Arslanyan.

The documentary was shot in 3 different locations, which are important in the artist's life. We can also classify these 3 different locations as 3 different periods in Arslanyan's life. This project, which is unique in every second and contains many documents that have never been shared before. The project will fill an important gap in the field of Turkish guitar history.

Modernity and Iran:
A historical narrative of rhythm in early 20th century music
Bardia Hafizi

The constitutional revolution of 1905 is the event that is most associated with the advent of modernity in Iran. Socio-economic changes ushered in an era of change for music and musicians, including but not limited to the establishment of a recording industry and radio technology, independence of performers from royal patronage, formation of the first music school, the elevation of the status of artists as the elite class, the rise of music intellectualism and re-creation of the role of composer. The economical and military influence of Russia (later the Soviet Union) and several European states also had an effect on the practice of music in Iran. In this proposal, I outline a study of music intellectualism and performance in the history of Iran. There have already been many studies on the socio-musical developments of this era. However, most of these works are synchronic in nature. In this work, I will investigate how the changes of this era were affecting the way people conceptualized, performed and experienced rhythm. Furthermore, by looking at these historical details in a chronological manner, a narrative of modernity will be presented.

The music I study includes the gramophone recordings of mostly court musicians from the early 1900s, more popular and commercial recordings of later years, the tradition of *tasnif*, and solo tombak performances. My methodology includes a critical reading of primary historical texts of this era (memoirs of influential figures, theoretical and pedagogical works, etc.) and an analysis of the rhythmic structures and configurations of this music. There are many ways in which this study can be expanded. However, my aim is to create *a* historical narrative of modernity in Iran, by focusing on the element of rhythm in its music. Lastly, my narrative will be

formed around the relative past and presence of *tombak* in this era by considering different aspects of this instrument —and its performer— through time.

How Car Engine Sounds in Forza Horizon 5 Affects Player's Driving Behaviour in the Game
Berk Ilkıç

It is known that people can be manipulated by someone's Word. In films, sound effects are being used to support the mood that scene is presenting. Sounds are always used to support visuals in films. People have a pretty good perception of deciding if the sound is fitting with the visuals instinctively. Is it ok to expect something different in video games? This is an interactive experience with the possibility of an open-world travel experience. Nowadays, many game genres bring the open World concept to their games. One of them is a Car racing game called Forza Horizon 5. This open World car racing game offers countless customization options in the game. The obvious ones are cosmetics and sounds. When you swap the engine it changes how the car sounds completely. Just like how the talking voice of people delivers certain energy, Engine sounds tend to deliver similar ones. V8 and V12 engines have different potentials in terms of sound output, one is fuller and focuses on lower frequencies and the other one has a higher pitch like the formula one car. This will be tested on 10 participants with demo gameplay of a Forza Horizon 5 and participants will be asked to criticize the experiment. This will bring the result of how the car engine sounds in the game affect people's driving behaviors while driving them in the Forza Horizon 5.

A Practice of Object-Oriented Audio Programming Languages as Scores for Electronics
Ilgın İçözü

Musical notation systems have always been a medium for representing musical aspects, storing and transmitting musical data through time and locations. After the 1960s, with the advancements in computer-based technologies, programming and creating algorithms slowly became a creative tool. At the same time with these advancements, algorithmic music (or computer-based music), electronic music and new recording technologies arose. Coding environments are mostly open-source softwares. This aspect enables the reachability of programming softwares. Creative-coding and musical notation systems have so much in common. Chiltalkina et al. (2019) say: there are many different symbol systems that exist in the modern world to represent various kinds of information, music notation and source-code are one of them. Magnusson (2011) suggests that a source-code, especially live-coding, can be considered as a score for algorithmic

compositions. With a traditional score writing treatment to a source-code, a code can be an exact notation of any means of electronic and electroacoustic music. In order to support this idea, I conducted a small experiment with 3 electronic musicians/performers. A source code of a short algorithmic composition has been used as a score and a legend has been prepared to accompany it. Participants were asked to reproduce the pieces from any DAW or electronic and digital instrument they want and a short survey was conducted to participants. To compare the audio results I decoded the score into 7 components; melody, bass, sound design etc. I compared the audio and survey results with each other in order to comprehend the function of legend and score.

Playing on the Edge (10 min)
Metehan Köktürk

An abandoned, unfinished end of Kadıköy district resembles an instrument that defines its sonic nature in its own way. What was missing seemed to me to be a performance, a disturbance that would set this static system in motion. Walking and staying balanced on uncanny carrier irons turned into a dangerous street game and a sonic performance to be played on this construction site. I tried to hear and describe the world of my game by researching how it vibrates with my interaction, and how iron oscillations create sonic patterns.

This sonic continuum, which can be heard and analyzed with audiovisual documentation, becomes portable, transformable and reusable by sampling the motifs to be selected for Sonic Recycling. Samples and transformations can be organized as compositions on their own or combined with the original performance to produce different variations and virtually expand the game's world.

The Piano in Central Asian Music: Indigenous Stories Told with a Global Instrument
Robert McDonald

Music-making in Central Asia has long been subject to colliding forces affecting all aspects of cultural heritage, including tribal cross-pollinations, foreign colonialism and control, censorship of many forms, and forced or chosen exile. Political powers such as the U.S. military, Soviet Russia, and the modern Chinese government have introduced (or imposed) outside cultural items, often at the expense of original models whose preexistence threatened the supplanters. With the modern turn to unearthing musical heritage, our question subversively becomes what place a non-indigenous instrument, specifically the piano, has in Central Asian lands and in telling their stories. Despite its origin, fixed tuning, and massive body, the piano has with some frequency been the chosen instrument for composers and performers to transcend borders, celebrate cultural heritage in original ways, and otherwise be a bridge across many points of division. Two pianists and the ethnomusicologists behind them from Western China and Afghanistan will be considered as storytellers to give credence to cultural heritage as

surplus, with a global instrument being the vehicle for these narratives. Gulimina Mahamuti, the "first Uyghur from China to receive a Doctorate of Musical Arts in Piano Performance from the United States," in 2012 gave a solo piano recital at Carnegie Hall and recorded her subsequent album Xinjiang Piano Music from Western China, with music by Eastern Chinese composers Shi Fu and Chen Yi. Elsewhere, the young Afghani pianist Elhan Fanous recently completed his Master's of Music at the Manhattan School of Music, formerly studying under Ahmad Sarmast's Afghanistan National Institute of Music in Kabul. Both cases offer portraits of early training in their respective countries despite the piano being an untraditional instrument, relocation overseas alongside dramatic political events, and newfound opportunities to play new and old repertoire using the piano, something that bears scant resemblance to historical Central Asian sound worlds.

Keywords: Central Asia, Piano, Uyghur, Afghanistan.

Kadiköy Sessions: An Artistic Community Project in Kadiköy
Gabriel Meidinger

This final project studies the building of a community-based artistic organization in the neighborhood of Kadiköy in Istanbul. Through folk and traditional music, Kadiköy Sessions gather around events and project a community of like-minded people and artists. Locally anchored in Kadiköy and open to everyone with projects like jam sessions and festivals, Kadiköy Sessions aims to influence the local music scene with values of sharing, collective and collaborative works. This final project draws an ethnography of the project and follows its development from its creation.

Investigation of the Factors Involved in Improving Musical Expression via
Interactive Communication in SATB Ensembles
Sinay Mollamustafaoğlu

In ensemble singing, music is generated from within the ensemble as a collective being independent of individuals. In contrast, with a conductor, musical expression is directed by the conductor and the information is carried through her/his gestures to be received, interpreted, and reflected by the ensemble. The expressive information is coming from another source outside the centre of music, where the ensemble "obeys" the instruction rather than creating it. The ensemble may use several methods that are part of the interactive system to facilitate the collaborative generation of musical expression including but not limited to; eye contact, body movements, breathing, stage line-up and non-musical environmental factors. My hypothesis is that; "Eye contact is the primary cueing method in forming collective intelligence of the ensemble and it contributes to an improved musical expression in SATB ensembles without a conductor during the performance via a stronger interactive communication." In this project, I examined changes in the interactive system and establish their effects on musical expression and accuracy. To do so, video recordings of an ensemble performance were taken with and

without a conductor. In a related experimental condition, eye contact, as one of the prominent communication methods, was blocked during the performance. A decrease in pitch drift rate is seen in the performances without the conductor. In addition, the error rate of the relative frequency ratios reveals a gradual decrease towards the eyes closed condition. Head movement transcriptions reveal the maximum head movement is seen without the conductor, where eye contact constitutes the core of the interactive system. The purpose of this study is to investigate the factors involved in interactive communication leading to collective musical creativity and their contribution to improving musical expression in SATB ensembles.

The Rum Orthodox Church Music inside the Patriarchal Church of Saint George at Phanar, Istanbul
Nikos Papageorgiou

The Ecclesiastical music constitutes a way of expression and creativity with direct reference to the ritual life of the Eastern Orthodox Church. In other words, it is about a music genre that takes part in the ritual and is being assumed to invest musically in the liturgical texts. It is monophonic, as the respective musical them develops independently without the continuation of other voices, as is found for example in similar practices of western polyphonic music. At the same time, the church music belongs to the wide context of the multimodal systems of the East, which give special emphasis to the melody and in fact to its extremely refined-spatially and varied performance. Its absolutely phonocentric character is also the one that makes it essentially oral. Thus, as vocal music is based on the experiential reference of each performer to persons and environments, and consequently to the extent to which he applies during the performance that they carry. With its scholarly character, Ecclesiastical music has a more folk profile, which is based on the fact that it is addressed socially to wider groups and not to a closed environment of a specific elite. We can assume that one of the most important places where Rum Orthodox Church music bloomed, was mainly the city of Istanbul. While being inseparable from its "physical environment", this music genre managed to become a living element of the city-from the Imperial Court musicians of the 12th century, to the Rum Chanters of the 20th. The Ecumenical Patriarchate, is been considered the "ark", the living organisation that it's been regulated through rank, and managed to preserve the Orthodox Worship. Through it, someone can observe the natural space of this music, where everyone knows his place and even the slightest moves are masterfully "choreographised".

Representation in Music
Mert Soykan

In my presentation, I will discuss different modes of representation in music by referring to the works of Nattiez (1990) and Leeuwen (1999). I will introduce different modalities of sound, such as the *naturalistic modality* and the *sensory-coding orientated modality* as

discussed by Leeuwen (1999). I will present a set of conflicting views on the subject and ask the question "Can music be representational and if so to what extent?".

The discussion will be limited to the Western history of music for the sake of framing and limiting the discussion. The different views regarding the naturalistic representation in music can be seen from two perspectives. The first view holds that music cannot be representational at all, that it is a pure and abstract play on forms (figures like Nattiez, Stravinsky, Adorno). The other view holds that musical representation is abstract and therefore should not aim at the faithful representation of all the details of a specific sound, but rather represent the characteristics and the emotive aspect of these sounds.

I will give examples on how different modalities of sound were used to represent in the Western music history, from Vivaldi's *Four Seasons* to Disney cartoon soundtracks. The role of technology and how it changed the discussion will also be discussed. I will also mention Leuuwen's (1999) discussion on modality cues (a guideline to analyze the modality of sounds).

The use of local music elements of Turkey in Jazz Music: The Case Study of the album "JazzArk" by Baki Duyarlar
Ege Ülgen

Irregular rhythmic elements common in Turkish Maqam music can be easily appreciated by outside audiences, who perceive these rhythms in smaller groupings. Interviewed foreign musicians in this album who are western-educated, who played the jazz music of Turkey express that at first it was difficult to play this music but over time they developed an appreciation for it; they enjoy playing it and sharing it with the world. By analyzing the "Jazz Ark" album, composed by Baki Duyarlar, I would like to demonstrate that the irregular rhythmic elements in Turkish music can be artfully played and perceived by jazz musicians around the world.

Looking at the cover art of the album, which shows Noah's Ark, we expect that the music will be as "diverse" and "old" as the animals on Noah's Ark—a reflection of a forgotten genre that Duyarlar took out of a chest inherited from his father, and even from his grandfather, which is Turkish Maqam music, with its rhythmic and melodic structure. In this album, he combines mainly Turkish styles and those of other countries (i.e. Spain, India) with jazz music's language and aims for the simple understanding of odd rhythms that seem difficult on sheet music.

The Usage and Effects of Social Media on Neo Shamanic Ceremonies
Gonca Feride Varol

As a part of the Shamanic ceremony or journey, the Shamans have used and are still using music as a tool to heal people. During these ceremonies, some specific musical instruments are being used such as Shamanic drums, shakers and whistles. These

instruments have unique frequencies, and they are played in rituals followed by certain rules that are carried throughout the years. After the pandemic, the use of online communication platforms created new ways that Neo-Shamans can use to reconstruct their traditions and rituals.

Today, Shamanic ceremonies are still performed and the media that Neo-Shamans use changed over time. With the help of social media, Neo-Shamans can reach more people using online communication platforms, using the same musical instruments and rituals. So what is Neo-Shamanism? Compared to indigenous Shamanism, what is different and similar musically in Neo-Shamanic ceremonies? In this presentation, while defining the etymology and practices of indigenous Shamanism, the modern approaches and the effects of social media on Shamanism will be observed and criticized accordingly with supporting personal experience.

The Sonic Journey of The Hero/ine
Ayşe Yörükoğlu

Can we develop a parallel understanding between the narrative structure of a film and its sound design by examining and analyzing the sonic features of the audiovisual work? This study revolves around this primary question, aims to understand if there is a "sonic journey of the hero/ine" through making categorization of sonic events in the exemplary films, looking into the plot points marked in narrative templates, comparing/contrasting the sonic events overlapping the plot points and trying to understand the underlying meanings in those sonic overlaps and digressions.

The main model benefited in this study is the monomyth structure of Joseph Campbell also referred to as "the hero's journey". This structure contains plot points that indicate the changing directions that the storyline takes. My research asks if there are overlaps or patterns in the sonic world coinciding with those plot points. To investigate the possible connections between film sound design and film narrative structures, the relationship between sound and visuals, animation films are chosen. The sound production techniques of animation films differ from the live-action films and in order to have a clearer view of sound events this distinction in production styles is significant. In this preliminary research, selected portions of animation film director Hayao Miyazaki's films are going to be analyzed through the hero's journey in terms of narration. In parallel to narrative structure, the sound design of the selected works will be analyzed and categorized according to their significance in relation to the plot points of the narratives. After all the data in terms of sound and narrative points are collected, I aim to make a semiotic analysis from the findings.

Keywords: Narrative structure, Film sound design, Hero/ine's journey.

Sound Recording Archives
Mert Bozdemir, Sevil Doğan, Bekir Yılmaz, Berkay Köksal

Sound recording archiving can preserve collective memory and be a source for many researchers, as well as serve to create the content of many new projects. We produced as many questions as possible with our groupmates, and we discussed the archives of different types that we thought might be most useful and evaluated these archives together with the questions we determined. Asking questions about the contents, usability, strengths, weaknesses and who can access these archives? Is it for free? Does it require a subscription? What type of audience is it aimed at? The purpose of these questions was to reveal the similarities and differences between the sites. We asked these questions to the resources we researched by sharing tasks among our group members. As a result of the answers we received from the questions we asked, we came together and shared our findings with one another and had discussions. As a result of the discussions, we combined all our answers and stated our comments on general purpose, usability and strengths and weaknesses.

Using Social Media as Research Data
Efe Aslan, Fatma Gamze Kiremitçi, Gonca Feride Varol, Senay Yılmaz, Yaşar Ersin Çalkılıç

Throughout the years with the evolution of social media platforms, the usage area and the importance of the data gathered in these new platforms gained very much importance to humanity. Twenty years before today, social media was considered as a platform for having fun, building a friendship or learning something new within our leisure times. But today these platforms can provide us with an important database by tracing human interaction and social behaviour.

In this research we will focus on one question: Can social media be used as research data? To find answers to this question first we will make a broad definition of what is social media and choose four platforms to examine what kind of research data can be obtained from these platforms. Afterwards, we will be talking about ethical, legal issues of using the data and the reliability of the data gathered through these platforms. We will make a brief description on which methods shall be used during data gathering. And the discussion will end by explaining our conclusion.

Visualization Tools for Musical Sound and Experience
Fatih Açıkgöz, Tuğçe Albayrak, Meriç Çetin Öztürk, Batu Certel, Koray Soylu, Furkan Temel

To observe and study how musical and natural sounds are formed has been a historical interest virtually without a beginning, the visualization of harmonic relationships in musical formings and the composite nature of sound waves have intrigued many. After a long history of ingenious concepts and devices, the personal computer has ushered in a

new era of immense possibilities for the analysis and interpretation of sound events. Our presentation will look at the practicalities of sound visualization and what could be profitable about such analyses to a researcher in sound and music. We will center our discussion on Sonic Visualizer; an open-source software project initiated by the Centre for Digital Music, Queen Mary University of London, which provides a comprehensive toolset for the visualization and analysis of sound recordings. A quick recap of the basic physics of sound waves, waveform summary, and spectrogram representations will hopefully bring the issues some clarity. In our literature review, we have discovered some research from the recent past that exclusively uses spectrogram analyses to present musical data in new ways that we are eager to share. It has become clear to us during research that spectrum analysis is an art as well as a science. We would like to stress how there is no one all-purpose format for sound analysis and that it is necessary to think critically about sonic representations if we want to seriously engage with the proliferation of sound pictures in musical and sonic research.

Digital Humanities Tools and Areas of Usage in Social Science
Baran Çakır, İrem Hayrioğlu, Ataberk Fatih Genç, Ilgar Gökhan, H. Miray Eslek

Digital Humanities Tools (DHT), being an interdisciplinary field, has emerged from the use of digital computing mechanisms within humanities subjects following the advancements in technology and computing. DHTs are an example of the continuous development of humanity and it is a process in itself. While we used to do research in libraries, now we are talking about the model of humanity. Therefore, we can do research using programmes, databases, archive studies, effective presentation, systematic information with visualization, graphics, maps, music - sound studies, and so on. Among music scholars and musicians, DHT has also started to be used in individual studies and works. Especially in social sciences, this issue opens up to new areas of discussion. As a result of our different approaches, Digital Humanities Tools will be presented with different perspectives, such as in performance, sonic arts, ethnomusicology, musicology, and theory.

Keywords: Digital humanities tools, Digital system, Social science.

Open Access Resources in Music Research
Cansu Ülker, Dirun Ergin, Günseli Naz Ferel, Nikos Papageorgiou, Yazan Nusaibah

Open access resources are online areas of resources that are easy to find, free to access and therefore pretty fast to reach and read (or listen) about any investigated subject. It can include different kinds of sources of multimedia as well as reviewed scientific articles and journals. This flow aims to remove the price and permission barriers between data and researchers. This idea of accessibility in that easy way seems quite beneficial, however, the risks that it includes shouldn't be overlooked. The researcher should act more careful and even suspicious to avoid information pollution and ethical mistakes while experiencing advantages like reaching wide data and on the

other hand, a wide audience. By means of advancing technology and a variety of data, open access resources become non-negligible for scholars including music. In the music field the open-access data may be grouped in three headings; music samples; music scores and academic publishing. For the first group, there are websites including recordings of music and a variety of sounds. For the latter, a lot of different editions of scores can be found for the performers. It may be good to divide the latest category into three sub-headings; open access books, journals and articles of publishers; websites like collections for open access materials; open courses of universities. It should be kept in mind that an efficient way to reach trustful content within these kinds of websites is the library websites of universities that include guides for open access.

Digital and Graphic Tools
Ayça Akkın, Ezgi Durak, Kerem Duru, Çoruh Şimşek, İdil Yentür

As technology improves, sharing ideas and information also evolves with it. Nowadays, nearly everything should be in the digital domain, even more after the pandemic situation. The information transfer is extremely high, and the methods need to adapt to keep up the pace. Digital and graphical tools to present data and information are a necessity due to those conditions. Turning the raw data into meaningful information and then visualizing it using various graphic tools gives the reader a clearer perspective. The importance of these tools comes from their multisensory structures. Multisensory is presenting all information with three sensory modalities: visual, auditory, and tactile. They provide the information in easy-to-understand and visually satisfying ways. There are many graphical tools to represent different types of information. There are also lots of sites and mediums offering different usage and visual styles. Some scenarios were considered for each graphic that has been used for the presentation. Examples were given such as the timeline graphic would be useful in describing the periods in a music history lesson, and the mind map graphic would help to go from general to specific when determining a research topic. Some information is more eligible to use with specific tools. Also, there is a presentation tool needed to show this information together. Some of the presentation tools also contain variable graphical and digital tools inside. This presentation aims to show different methods to discuss and compare.

Keywords: Information, Presentation, Graphical tools, Multisensory.

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