

**THEORIZING MUSIC PERCEPTION AND COGNITION THROUGH  
VISUALIZATION OF SONIC PHENOMENA AND MOOD IMMERSION**

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## **Abstract**

This thesis offers an in-depth examination of the VisualEars Project which explores music perception and cognition, as well as the experience of mood immersion through visualization of music as a sonic, gestural phenomenon by visual artists and a consequent immersive experience of simultaneous music-listening and art-observing by a widespread, virtual audience. The methodologies include ethnographic research, musical and visual analysis, self-reflexive observation, and a randomized and controlled PANAS scale to measure mood in a group. Based upon the general theories of perception such as gestalt and metaphoric understanding in musical and visual perception as well as the longstanding benefits of the arts on wellbeing, this thesis highlights cross-cultural commonalities in musical perception and demonstrates the positive impact of the exhibition on the audience's mood.



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“Beauty isn’t all about nice loveliness. Beauty is about more rounded, substantial becoming... So I think beauty in that sense is about an emerging fullness, a greater sense of grace and elegance, a deeper sense of depth, and also a kind of homecoming for the enriched memory of your unfolding life.” *John O’Donohue*<sup>2</sup>

# Chapter One

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## Introduction

Western contemporary art has witnessed a myriad of interdisciplinary artistic practices rooted in the creative curiosity of artists and musicians who have explored new concepts and sources of inspiration. These practices have been continuously shaping and reshaping the boundaries of perception<sup>3</sup> as well as conventional and theoretical frameworks. As a result, interdisciplinary practices have become ever more remarkable and thriving. The persistence of these practices makes a case for the absolute strength of this kind of multi-modality for the creative community, as each medium offers a variety of opportunities for collaborations between practitioners of different art forms and galvanizes them to examine their personal and artistic potential. From another perspective, the ideas mentioned above facilitate the broad range of topics and questions examined by disciplines such as neuroscience and cognitive psychology that contribute to a deeper understanding of human perception, which is the spectacular translation of neural activity in the central nervous system into meaningful information.

In this thesis, I will guide you on a journey through the initial conception and the evolution of my project, resulting in both a creative component and scholarly research. I explore music perception and cognition, as well as the experience of mood immersion through visualization of

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<sup>2</sup> Krista Tippett, “*Jon O’Donohue, Beauty is an Edge of Becoming*”, On Being Project, March 18, 2016, podcast, mp3 audio, 6:44, <https://onbeing.org/programs/2-beauty-edge-becoming-john-odonohue>.

<sup>3</sup> The working definitions I am using for these terms are as follows: Perception is the interpretation of sensory information we receive from the world through each of our senses. Cognition is the mental processes, such as thinking, that help us understand our internal and external world. Mood is a temporary affective state of mind.

music as a sonic, gestural phenomenon by visual artists and a consequent immersive experience of simultaneous music-listening and art-watching by a widespread, virtual audience. I hypothesize that the auditory experience of music can evoke shapes, colours, and images in the perceptual sphere of visual artists and that the synergies between select pieces of music and visual art can have a positive impact on the mood of a diverse audience. This audience can often infer the underlying connections by way of mere viewing or simultaneous viewing and listening. These commonalities are explained in depth in Chapter Three.

Combining different disciplines and methodologies requires a distinct method of presentation to adhere to the essence of interdisciplinarity (Appendix A). In order to maintain the continuity of the interdisciplinary nature of my project, I have resorted to the most widely utilized methodologies in the three disciplines across which I have conducted my research: music, visual arts, and psychology. These methodologies include ethnographic research, musical and visual analysis, and psychometric scales to measure mood in a group. During the ethnographic research, I conducted interviews with each participating visual artist. The artists revealed personal and professional insights about the creative process, their relationship with music as a vehicle for inspiring creativity, abstract art, and the possibility of better understanding the underlying connection between different musical and visual artworks. I have utilized my musical knowledge to provide an analysis of the pieces of music I used in my exhibition. A brief musical analysis will provide some background information about the pieces for the reader and perhaps facilitate the connection between the musical elements and visual elements. For the visual analysis, I have presented a personal observation of the artworks, thereby offering a subjective take on the commonalities and contrasting elements in the exhibit. These observations are by no means evidence for the universality of these ideas. Rather, they represent a free interpretation based on my own

experiences and minimal training in visual arts. Finally, I provide an analysis of the PANAS scale that I used for mood measurements for the visitors who attended the virtual exhibit. The wide range and seeming disparity of these methodologies might jeopardize their ability to make a coherent statement. However, I devised a distinct structural form and stepwise motion to reveal the details of this project and the interconnections of the methodologies I am applying in this thesis.

To construct a cohesive form for this thesis, I offer the use of two metaphors, one musical and one visual. In order to take the reader on a mental journey through the exhibition as accurately as possible, for the first metaphor I have chosen a term for musical structure known as "through-composed composition." This term implies a specific type of journey from point A to point Z, for example, where each section appears only once. Stated in a different way, through-composed refers to musical works with multiple sections that are different from one another and don't repeat. I propose this form 1) to incorporate music as yet another interdisciplinary layer, and 2) to help the reader follow the path I lay out while combining methodologies. The second metaphor I use is visual, represented by the quilt. Here, diverse elements are placed in juxtaposition to one another. The patchwork mosaic-like structure of quilt design represents the multi-layered nature of subjective interpretations of the artworks. It also refers to the multi-sensorial exposure the visitors are experiencing during their visit to the exhibit. The patchwork notion, just like the various sections of a through-composed musical composition, exemplifies the different elements present in this thesis. The use of musical and visual metaphorical concepts to create the structural design of the thesis can be viewed as an experimental approach that aims to highlight the interwoven features of interdisciplinarity from the perspective of both con-



cept<sup>4</sup> and practice. The notions aspire to further enable the reader to comprehend the thesis structure: as a metaphoric viewer<sup>5</sup> of the thesis as a quilt design, and as a metaphoric listener moving through the temporality of the study.

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## Theoretical Background and Literature

### 1.1 Perception and Gestalt

Exploring perception through different disciplines shows the underlying connection among them. Despite the remarkable way in which perception is shared between disciplines, the close connection between these disciplines in this regard has been obscured by analyses that focus on a single discipline. Research reveals that the conceptual aspects of perception are found in various disciplines such as philosophy, cognitive psychology, visual art, music, and linguistics, despite their seeming isolation from one another. One concept that makes perception possible is the experience of "gestalt" in psychology. This concept refers to the fact that our understanding of external stimuli does not rely on understanding the constituent parts separately but rather the sum of the "whole." My investigation reveals how different disciplines share the same understanding of the "whole" without explicitly attributing that notion to gestalt theory. This shared understanding of gestalt exemplifies the intriguing elements of perception that can be practiced in various disciplines.

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<sup>4</sup> In addition to the quilt metaphor, the through-composed metaphor will also require the reader to become aware of the temporal placements of the various sections and chapters of this thesis. In this case, ideas in each section and chapter can stand alone without leading to other chapters; however, the reader is required to integrate ideas mentioned in all the chapters in the same way that ideas make meaningful expressions in a through-composed piece of music, which is across the temporality of the composition. Drawing from three disciplines (music, visual arts, and psychology), on both conceptual and practical levels, is designed to showcase the interdisciplinary nature of this research and its implications.

<sup>5</sup> "Metaphoric viewer" refers to the perceptual framework one is advised to use to interpret and understand this thesis as a visual work (quilt design). One would be able to view the form from outside, which requires a different approach than merely being a conventional reader who deals with a text. Metaphoric viewer requires a mental transition from being a reader to becoming a viewer as well.

The Canadian philosopher and poet Jan Zwicky views meaning making as the integration of smaller parts: the experience of gestalt in an instant of observation, assisting with the identification of patterns<sup>6</sup>. She calls this phenomenon *lyric philosophy*, a concept that explains our non-verbal understanding and thinking about the external world. It refers to understanding the meaning and significance of certain things by looking at the whole picture and instantly recognizing patterns built from smaller constituents. This meaning making happens instantly and internally and can then be articulated with language. Pierre E. Jacob and Marc Jeannerod also believe that we must be able to integrate visual cues from our surroundings to be able to identify a meaningful and recognizable object<sup>7</sup>. Aristotle has pointed to this phenomenon in his concept of unity between matter and form, which explains that matter and form can be thought of separately but cannot be perceived separately.<sup>8</sup> Based on Aristotle's notion and the fact that in my project all the works of art in each room were visualizations of one piece of music, each room in the exhibition was able to create a unity through the musical piece and how it was visualized. In this case, the unity between matter and form can serve as a metaphor for the unity of the musical piece and the visualized works of art in each room that were based on that particular musical piece. American linguistic anthropologist Shirley Brice Heath suggests that there is a cognitive play in our brain that attempts to fill in the missing parts of a visual work of art, to "bring separations together into a whole" and make it complete into a meaningful object or concept.<sup>9</sup> This means that we are wired to make sense of our surroundings by connecting the dots and completing what is missing.

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<sup>6</sup> Jan Zwicky, *Wisdom and Metaphor* (Kentville, Nova Scotia: Gaspereau Press, 2003), Left 2.

<sup>7</sup> Pierre Jacob and Marc Jeannerod, "Visual Perception," in *Ways of Seeing: The Scope and Limits of Visual Cognition*, 6. Oxford [England], New York: Oxford University Press, 2006.

<sup>8</sup> Katerina Bantinaki, "Picture Perception as Twofold Experience," in *Philosophical Perspectives on Depiction*, ed. Catharine Abell and Katerina Bantinaki (Oxford: Oxford University Press, 2010), 6.

<sup>9</sup> Shirley Brice Heath, "Dynamics of Completion" in *The Artful Mind: Cognitive Science and the Riddle of Human Creativity*, ed. Mark Turner (Oxford: Oxford University Press, 2006), 133-150.

We identify patterns at a glance by putting together the pieces of the puzzle in front of us . We do this by looking at a whole picture and recognizing familiar and permanent shapes as opposed to fixating on the details, because we are drawn into familiar shapes and patterns instead of random obscure elements that do not make a meaningful whole.

In music, the gestalt perception traces back to Ernst Kurth's 1931 work *Musikpsychologie* and has been supported by a number of experiments since then.<sup>10</sup> Various studies on the brain confirm these theoretical ideas based on the fundamental finding that our brain is curious and seeks to solve puzzles. In doing so, it creates connected patterns that constitute familiarity. In other words, our brain utilizes the smaller parts of the puzzle to make a meaning whole. Given the confirmation of this fundamental brain activity, my project examines the way visual artists perceive music as a whole without the need to dissect it into its components (such as melody, harmony and rhythm) and, more importantly, how they visualize their reactions in the creative process by adding formal and visual dimensions to the temporal and musical nature of their initial experience. During my interviews, this concept of "whole" and non-verbal perception was repeatedly expressed by the visual artists in my project ; in some cases, however, they found it difficult to articulate how the music made them feel or what their acknowledged perception of it was. For the most part, they referred to the whole piece of music evoking a certain feeling or imagery (Appendix B). As a musician, I found it compelling to explore whether the artists were translating musical elements into distinct visual features, yet more and more I was convinced that the emotional weight of the music was carried by the "whole" experience of those elements. In Chapter Three, I compile the reactions of all the artists who worked on a given musical piece,

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<sup>10</sup> Michael Thaut, "History and Research," in *The Oxford Handbook of Music Psychology*, ed. Susan Hallam, Ian Cross, and Michael Thaut (Oxford: Oxford University Press, 2016), 894.

and address their shared and unique perceptions. Their works demonstrate their unique individual translation of the emotions and imagery evoked by the musical pieces.

## 1.2 Music Cognition

What is the meaning of music? How does it evoke thoughts, emotions, and moods? These seemingly simple questions continue to occupy the thoughts of many philosophers, musicians, and cognitive psychologists. Any type of sound that is audible to humans goes through the auditory pathway to the brain, the organ that processes the elements of sound. Concepts like pitch, rhythm, timbre, melody, and harmony—the building blocks of music—are perceived by the brain without the individual needing to be trained in music. That is how we distinguish “music from noise,” since we perceive the musical structure on a deeper perception level that is independent from our training in music.<sup>11</sup> Thus, neurobiological functions in the brain enable the recognition of musical elements as they do with the formation of feelings, thoughts, and possibly belief systems. In fact, in the *Oxford Handbook of Music Psychology*, Hallam et al. argue that “[t]he field of neuroscience has begun to contribute important new knowledge about the neurobiological foundations of music perception and cognition.”<sup>12</sup> The British neurobiologist Semir Zeki believes that despite subjectivity in interpreting art, there are commonalities in our interpretations that make it possible for us to collectively discuss and take pleasure in works of art. In Chapter Three, I will demonstrate real-life examples of these commonalities documented in the visualizations created by visual artists around the world. Zeki argues that “common neurobiologic processes” are the foundations of the various creative styles artists engage in.<sup>13</sup> Neuroscience has

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<sup>11</sup> William Forde Thompson, *Music, Thought, and Feeling: Understanding the Psychology of Music* (Oxford: Oxford University Press, 2015), 75.

<sup>12</sup> Susan Hallam, Ian Cross and Michael Thaut, “Where Now?” in *The Oxford Handbook of Music Psychology*, ed. Susan Hallam, Ian Cross, and Michael Thaut (Oxford: Oxford University Press, 2016), 908.

<sup>13</sup> Semir Zeki, “Artistic Creativity and the Brain,” *Science* 293, no. 5527 (2001): 51, accessed November 18, 2021. <https://doi.org/10.1126/science.1062331>.

not yet been able to provide a complete account of the details of our musical perception and cognition<sup>14</sup>; nonetheless, it is an ongoing and very exciting research domain.

### 1.3 Visual Perception and Metaphoric Cognition

I aim to tackle the question of music cognition through visualization. The visualization of musical properties may further illuminate the relationship between different modalities which in turn may shed light on our unique and mysterious experiences with music. According to the findings of cognitive science, metaphoric cognition is how we understand many aspects of the world around us.<sup>15</sup> The use of metaphor to describe our sensory experiences facilitates meaning making and further understanding those experiences. Patterns are essential to our meaning making in music<sup>16</sup> as well as in the visual arts. We are constantly identifying familiar patterns and making comparisons between what we hear and what we have heard before, or what we see and what we have seen before. This “analogical juxtaposition” is what makes a metaphor. It shapes our deeper understandings about the world. It places a new object next to a familiar one to help with meaning.<sup>17</sup> Our perception of music and visual arts requires such metaphoric processing. Some of these metaphoric interpretations of music are shared by the participants in this project and are classified in different ways, which I will present in the chapter three.

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<sup>14</sup> Thompson, *Music, Thought, and Feeling*, 134.

<sup>15</sup> Lawrence Shapiro and Shannon Spaulding, "Embodied Cognition," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Stanford: The Metaphysics Research Lab, Philosophy Department, Stanford University, n.d.), <https://plato.stanford.edu/archives/win2021/entries/embodied-cognition>.

<sup>16</sup> Steve Larson, *Musical Forces: Motion, Metaphor, and Meaning in Music* (Bloomington, Indiana: Indiana University Press, 2012), 31.

<sup>17</sup> Alan Male, *The Power and Influence of Illustration: Achieving Impact and Lasting Significance Through Visual Communication* (London and New York: Bloomsbury, 2019), 88.

The American composer Roger Sessions argued that motion is the “basic ingredient” of music, not sound.<sup>18</sup> It is worth noting that human beings are eminently capable of detecting motion, both in music and the visual arts. Motion is embedded in music in the form of “virtual implicit motion”<sup>19</sup> and we use metaphors to make sense of it. The American psychiatrist Gilbert J. Rose explains that implicit motion “comprises both the tension and release of the virtual motion that has been built into the formal structure of visual art and music, and the actual muscular tension and release that makes up a significant part of one’s total bodily responsiveness to affect.”<sup>20</sup> This motion, which is understood and perceived through our bodies and sensory feelings, is quite apparent in the artists’ reactions to the musical pieces in this project, whether through the intensity of brushstrokes aligned with musical rhythm (when they were drawing or painting while listening to the music), or the rhythmic elements in music that emerged as visual rhythms. I will discuss the embodiment of this motion in later chapters.

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### Therapeutic Benefits of Music and Visual Arts

This project also examines the impact of multimodal experiences on mood. For example, Carol L. Krumhansl and Diana Lynn Schenck’s research reveals that when different modalities such as sound and sight come together, they can induce very strong emotional effects.<sup>21</sup> A case in point is an audience watching and listening to a live performance. This type of multi-sensory en-

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<sup>18</sup> Roger Sessions, *The Musical Experience of Composer, Performer, Listener* (Princeton, NJ: Princeton University Press, 1950) as cited by Gilbert J. Rose, *Between Couch and Piano: Psychoanalysis, Music, Art and Neuroscience* (London: Routledge, 2004), 134.

<sup>19</sup> Gilbert J. Rose, *Between Couch and Piano: Psychoanalysis, Music, Art and Neuroscience* (London: Routledge, 2004), 134.

<sup>20</sup> *Ibid.*, 133.

<sup>21</sup> Carol L. Krumhansl and Diana L. Schenck, “Can Dance Reflect the Structural and Expressive Qualities of Music?” *Musicae Scientiae* 1 (1997), 63-85, as cited by Thompson, *Music, Thought, and Feeling*, 30.

gagement may appear to be unconscious, but it does create a "unified experience."<sup>22</sup> Another study, by Thalia Wheatley and her psychology colleagues, determines that “both motion and music activate brain regions connected to emotions that are deep in the brain in the limbic system, where emotions are processed.”<sup>23</sup> This refers to the bimodal sensory inputs in human beings in which vision and hearing combine to induce emotions. According to WHO, mental health disorders continue to significantly impact the global population. According to Steel et al. and based on 174 global surveys across higher- and lower-to-mid-income countries, “on average one in five adults (17.6%) experienced a common mental disorder within the past 12 months and 29.2% across their lifetime.”<sup>24</sup> Depression, for example, affects around 264 million individuals globally and is one of the major causes of disability.<sup>25</sup> Additionally, between 76% and 85% of the people affected by mental health disorders in low-to-middle-income countries do not receive treatments.<sup>26</sup> The rate of mental disorders is more elevated in places with higher instances of conflict that occur in countries engaged in civil war or other atrocities.<sup>27</sup> In Canada and during the Covid-19 Pandemic, 45% of youth (aged 16 to 24) reported moderate to severe anxiety and

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<sup>22</sup> William Forde Thompson, F. A. Russo, and Lena Quinto. “Audiovisual Integration of Emotional Cues in Song,” *Cognition and Emotion* 22, no. 8 (2008), 1458.

<sup>23</sup> Rob Desalle and Patricia Wynne. *Our Senses: An Immersive Experience* (New Haven: Yale University Press, 2018), 251.

<sup>24</sup> Zachary Steel, Claire Marnane, Changiz Iranpour, Tien Chey, John W Jackson, Vikram Patel, and Derrick Silove. “The Global Prevalence of Common Mental Disorders: A Systematic Review and Meta-Analysis 1980–2013,” *International Journal of Epidemiology* 43, no. 2, (2014): 477, accessed Dec 14, 2021, <https://doi.org/10.1093/ije/dyu038>.

<sup>25</sup> Kalkidan Hassen Abate, Zegeye Abebe, Olifan Zewdie Abil, Ashkan Afshin, Muktar Beshir Ahmed, Fares Alahdab, Khurshid Alam, et al. “Global, Regional, and National Incidence, Prevalence, and Years Lived with Disability for 354 Diseases and Injuries for 195 Countries and Territories, 1990–2017: A Systematic Analysis for the Global Burden of Disease Study 2017,” *Lancet* 392, no. 10159 (2018): 1683-2138, accessed Dec 14, 2021, <https://www.who.int/news-room/fact-sheets/detail/mental-disorders>.

<sup>26</sup> Philip S Wang, Sergio Aguilar-Gaxiola, Jordi Alonso, Matthias C Angermeyer, Guilherme Borges, Evelyn J Bromet, Ronny Bruffaerts, et al. “Use of Mental Health Services,” *Lancet* 370, no. 9590 (2007): 847.

<sup>27</sup> Fiona Charlson, Mark van Ommeren, Abraham Flaxman, Joseph Cornett, Harvey Whiteford, and Shekhar Saxena. “New WHO Prevalence Estimates of Mental Disorders in Conflict Settings,” *Lancet* 394, no. 10194 (2019): 245, accessed Dec 14, 2021, [https://doi.org/10.1016/S0140-6736\(19\)30934-1](https://doi.org/10.1016/S0140-6736(19)30934-1).

40% reported an increase in substance use.<sup>28</sup> Nonetheless, due to the continued stigma around mental health issues and the fact that the data on the WHO's website has not been updated, it can be safely assumed that these numbers are much higher in reality than reported. Given the dire situation of mental health globally, adverse side effects from the medications, and the stigmatization of mental disorders, this study aims to explore how immersive experiences such as those proposed by this study can serve as a potential alternative and highly affordable intervention for mood disturbances alongside other conventional treatments.

There are many studies involving music and other art forms that assess their effect on human physiology and psychology. In some of these studies, music was found to have an impact on mood and arousal levels.<sup>29</sup> The positive benefits of music on mood enhancement have been documented “to calm agitated patients in residential aged-care settings”<sup>30</sup>, “to reduce stress among nurses caring for cancer patients”<sup>31</sup>, “anxiety in pre-surgical patients”<sup>32</sup>, “and depression in palliative care settings”<sup>33</sup>, “and to improve the mood of birthing mothers”.<sup>34</sup> Some research demonstrates that “listeners are highly sensitive to emotional meaning in music, and that their

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<sup>28</sup> Mental Health Commission. “Mental Health and Substance Use,” accessed Dec 18, 2021. [https://mentalhealthcommission.ca/wp-content/uploads/2021/12/leger\\_poll\\_spotlight\\_on\\_youth\\_older\\_adults\\_stigma.pdf](https://mentalhealthcommission.ca/wp-content/uploads/2021/12/leger_poll_spotlight_on_youth_older_adults_stigma.pdf).

<sup>29</sup> W. F. Thompson, E. Glenn Schellenberg, and Gabriela Husain. “Arousal, Mood, and the Mozart effect”, *Psychological Science*, 4 (2001): 248.

<sup>30</sup> Balakrishnan Nair, Christian Heim, Chitra Krishnan, Catherine D’Este, John Marley, and John Attia. “The Effect of Baroque Music on Behavioural Disturbances in Patients with Dementia.” *Australian Journal of Ageing* 31, no. 1 (2011): 11-15. (As cited by Sandro Garrido, *Why Are We Attracted to Sad music?* 149.)

<sup>31</sup> Hui-Ling Lai, Yin-Ming Li, and Li-Hua Lee. “Effects of Music Intervention with Nursing Presence.” *Journal of Clinical Nursing* 21 (2012): 745-756. (As cited by Sandro Garrido, *Why Are We Attracted to Sad Music?* 149.)

<sup>32</sup> Marie Cooke, Wendy Chaboyer, Philip Schluter, and Maryanne Hiratos. “The Effect of Music on Preoperative Anxiety in Day Surgery.” *Journal of Advanced Nursing* 51, no.1 (2005): 47-55. (As cited by Sandro Garrido, *Why Are We Attracted to Sad Music?*, 149.)

<sup>33</sup> Lisa M. Gallagher, Ruth Lagman, Declan Walsh, Mellar P. Davis, and Susan B. LeGrand. “The Clinical Effects of Music Therapy in Palliative Medicine.” *Support Care in Cancer* 14, no. 8 (2006): 859-866. (As cited by Sandro Garrido, *Why Are We Attracted to Sad Music?* 150.)

<sup>34</sup> Caryl A. Browning. “Using Music During Childbirth.” *Birth* 27, no. 4 (2000): 272-276. (As cited by Sandro Garrido, *Why Are We Attracted to Sad Music?* 150.)



impressions of music are quite similar.”<sup>35</sup> They also determined that dopamine plays a major role in music listening, triggering the reward system in the brain, in addition to increasing the blood flow to regions of the brain responsible for “motor processes.”<sup>36</sup>

The visual arts also have positive benefits on mood and have been used for centuries as powerful healing agents in many societies. Having visual works of art in churches and Buddhist shrines is believed to improve our wellbeing, and more specifically to “bring about a change in consciousness and to promote healing and hope.”<sup>37</sup> Zeki notes the increased neural activity in the brain when the individual is experiencing an emotional response to an artwork.<sup>38</sup> In another study, Smith discovered a phenomenon called “The Museum Effect” which explains individuals’ temporary positive change of attitude toward other people while visiting an art exhibition.<sup>39</sup> Positive effects on the audience’s mood are observed in my project as well, which I further explain in Chapter Four.

I will continue with an in-depth discussion and explanation of my project in the following four chapters. Chapter Two, for example, offers a detailed account of multiple methodologies incorporated into my project. Chapter Three includes the process of musical selection for the project and features musical analysis in addition to a detailed analysis of the visual works of art in each room. I compile my observations and findings alongside the artist’s insights and feedback in separate subsections for each room. The titles of these subsections are based on the themes and commonalities described by the artists as well as the ones I noted in my own observations among

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<sup>35</sup> Thompson, *Music, Thought, and Feeling*, 191.

<sup>36</sup> Ibid.

<sup>37</sup> Michael Samuels and Mary Rockwood Lane. *Healing With the Arts: A 12-week Program to Heal Yourself and Your Community*. (New York, Hillsboro: Atria Books/Beyond Word, 2013), 79.

<sup>38</sup> Semir Zeki. *Splendors and Miseries of the Brain*. (Chichester, E. Sussex: Wiley-Blackwell, 2009). (As cited by Catherine Weir and Evans Mandes, *Interpreting Visual Art: A Survey of Cognitive Research about Pictures*, 44.)

<sup>39</sup> Jeffrey K. Smith. *The Museum Effect: How Museums, Libraries, and Cultural Institutions Educate and Civilize Society*. (Lanham, MD: Rowman and Littlefield. 2014b). (As cited by Catherine Weir and Evans Mandes, *Interpreting Visual Art*, 235.)

the works. Chapter Four lays out the quantitative analysis of the study on mood and its results. In the final chapter, I present a short self-reflexive section that serves as a space for illuminating the secondary set of findings which emerged from this thesis. These findings reflect some of the future directions that I hope to explore in the next phases of my research.

## Chapter Two: VisualEars Project

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### Methodology

The interdisciplinary nature of my research required the utilization of multiple methodologies including creating an online exhibition, ethnography, self-reflexive observation, music and visual analysis, and the psychometric questionnaire PANAS (Appendix C). Below, I will explain each methodology separately.

I conceived this project in 2014 as a creative means to facilitate and guide my research. This eventually led to a decision to devise an immersive exhibition-like experience where visitors could peruse visual art on the walls of rooms and listen to a piece of music at the same time. Unfortunately, it wasn't possible to launch this project and begin my research until 2020. Because of the global pandemic and the restrictions on people and their use of public spaces, I decided to situate the whole experience online. This seemed like an exciting prospect initially, but later proved to be challenging because of the enormous technological demands that ensued.

I created a virtual 3D exhibition on the Kunstmatrix platform devised by a German-based company that designs online 3D exhibitions. The platform offers realistic and user-friendly solutions to virtual exhibits. The pricing is reasonable in comparison to other competitors. I opted for the plan that offered up to 20 exhibitions on a monthly basis. In each plan, you choose the space where you would like to hold your exhibition. The spaces vary from single rooms that cover approximately 100 square meters and hold from 20 to 25 pieces of art to multi-level rooms that can incorporate up to 250 works. For this exhibition, I selected eight pieces of music and recruited 28

artists to create works inspired by two of these musical pieces.<sup>40</sup> The artists were asked to visualize what they heard into what they produced. My recruitment strategy involved reaching out to a large group of artists around the world, some of whom were referred to me by other artists and a few whom I knew in person. The remaining artists were recruited through searches on the Internet, online galleries, and online museums. It was my intention to settle on artists from different cultures, backgrounds, professional experiences, and education levels to create diversity of perspective and examine music perceptions across various cultures. Artists participating in the exhibition hailed from Canada, the U.S., the U.K., Germany, Denmark, the Netherlands, Serbia, Iran, Ukraine, Japan, Ghana, and South Africa.

I assigned each artist a musical piece and asked them to pick a second piece from the list of seven pieces. Each artist signed an informed consent form<sup>41</sup> that included a description of the project, a description of their assignment, and additional information. I also provided them with 50 Canadian dollars per work of art in accordance with the CARFAC guidelines in Canada for the virtual exhibit. Only one of the artists experienced synaesthesia where sounds are associated with certain colours. Another experienced colour associated with letter of alphabets and days of the week. With respect to the design of the exhibition, I chose a specific room layout and wall colours for each musical piece where I added the pieces of art that were visualizations of that piece; therefore, there were eight rooms in total for the exhibition. The number of artworks in each room varied as some artists asked me to change their initial choice and a few of the artists that agreed to start the project could not finish because of health and family issues.

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<sup>40</sup> Out of around 35 artists that I reached out to, 28 (Appendix D and E) agreed to participate in this project and the rest declined for various reasons including language barriers, family issues, or time constraints.

<sup>41</sup> This study was approved by REB at York University, Canada with the Certificate #: STU 2021-044 Approval Period: 04/30/21-04/30/22

Thus, their works were eliminated from the respective rooms. There was one room that held only two artworks and there were a few rooms that held nine. In hanging the artworks in each room, I tried to create cohesion by arranging the pieces based on the closest colours and forms situated next to one another. I designed two versions for the exhibition: one version with artworks on the walls and music playing simultaneously, and another version with only the artworks on the walls. However, everything else was identical.

Prior to the virtual exhibition, I created a website dedicated to the project. This website described the experience in a few paragraphs and served as a platform to begin the exhibition. I added photos of all the artists, their biographies, and links to their websites or social media. During their virtual experience, each visitor would click on “Begin exhibition” and then be directed to the Qualtrics platform at York University. For the platform, I had designed a randomized controlled study on Qualtrics in three languages: English, French, and Farsi. English and French are the official languages of Canada, and Farsi is the language of the highest number of artists per country after Canada in my study. In Qualtrics, once the visitor selected their language, they were directed to a consent form. This form described the project and how they would participate, their rights, and other exhibition-related information. The study was anonymous and voluntary for the visitors. Those who agreed to participate in the research were directed to the PANAS mood questionnaire and were asked to first select their age range from three options of "Below 25," "25 to 50," and "Over 51." They were also asked to choose their gender from the categories "Male," "Female," and "Other." Those who did not agree to participate were taken directly to the immersive version of the virtual exhibition.

I utilized PANAS which consists of 20 questions. Ten of these questions measure positive affect and the other ten measure negative affect. The reason I chose the short form was to make it more convenient and faster for people to begin their visit to the exhibition. When the visitors completed the mood questionnaire, they were directed to the first room of the exhibition and randomly either to the immersive or the non-immersive format. The invitations were emailed to my contact lists, and to the artists to be promoted on their social media. I also included the exhibition's link in a few social media posts on the project's Instagram page.

Through the instructions, the visitors would enter Room One, click on a "Start Here" panel, and navigate through the room by clicking on the arrows on the right or left. In the immersive version, the music started playing once the first panel was clicked and kept looping until the visitor left the room. Each artwork came with the name of the artist, the piece of music that it was visualized from, the art's price, size, and technique, and the artist's website. Visitors could zoom in on the artwork and manually navigate around the room instead of using the right and left arrows on the page. They could continue navigating around the room until they hit the last panel. This panel carried instructions on how to go to the next room through a link on the bottom right corner of their screen. Each room followed the same directional flow (starting with the first panel, a series of artworks on the wall, and a closing panel with the link to the next room). Both formats of the exhibition had eight rooms, and visitors were asked to visit the exhibition in one sitting, since I was trying to measure their mood in response to the entire exhibition. The final panel in the last room invited people to take the questionnaire again. The questionnaire was a duplicate of the first one, followed by a question for the visitors to describe their exhibition experience in one word. Responses to this final question generated a word cloud (Appendix F).

The questionnaire PANAS is used to reliably measure the mood of a participant at any given time. It is used to help with treatments and to identify people's baseline moods. As mentioned, this questionnaire has 20 questions measuring positive and negative affects. It was first created by Dr. Watson et al. in English.<sup>42</sup> For this project I used the English, French<sup>43</sup>, and Farsi<sup>44</sup> versions. I got Doctor Watson's authorization by email to use the questionnaire and also purchased the French version through Mapi Research Trust, which offers a validated translation of PANAS in French. Dr. Watson's permission also included permission from the APA for the use of this questionnaire for research purposes.

The virtual platforms by Kuntsmatrix offer single rooms for exhibits. Hence I was required to create my own solution for connecting the rooms in the face of the platform's constraints. That is why I designed the rooms to be followed consecutively and smoothly in one sitting through instructions provided upon entering the first room and with the same instructions offered in the first and last panels of each room. Consequently, there was no option to go back to the previous room, which made it a one-way flow. Each room was slightly different in terms of wall colour and layout to give the visitors a realistic impression of a physical exhibition. The exhibition and the study were live for four weeks. As per the interest of the public, I kept the exhi-

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<sup>42</sup> David Watson, Lee Anna Clark, and Auke Tellegen. "Development and Validation of Brief Measures of Positive and Negative Affect: The PANAS Scales." *Journal of Personality and Social Psychology*, 54, no. 6 (1988): 1063. The positive and negative affects questionnaire (PANAS) originally developed and validated in a 20-item short-form as the PANAS (Watson et al., 1988). For this project, the French (Mapi Research Trust) and Farsi (Shokri et al., 2014) translations were utilized, which show comparable reliability.

<sup>43</sup> PANAS – France/French – 1999 – Mapi ID3614. This translated version of the PANAS scales is based on Watson et al., "Development and Validation." Copyright © 1988 by the American Psychological Association. Translated and reproduced (or adapted) with permission.

<sup>44</sup> An anonymous translation of the PANAS version in Farsi was utilized for the experiment. However, the author came across a validated version of PANAS by Shokri et al. (2014) in Farsi after the experiment was completed. The version used is identical to the validated version in the translations of the words, but there are two questions with swapped translations. Nevertheless, since the separate sum of positive and negative affects determines the overall score, the swapping of the words did not create discrepancies in the results.

bition live for another four weeks without the study. As noted, the designs for the immersive and non-immersive exhibitions were identical, thereby keeping the music as the only variable for participants.

The next methodology that I used in this project was ethnographic research. I conducted one-hour interviews with each artist on Zoom to explore their musical perception, creative practice, and their process of creating the paintings for the project (Appendix G). The interviews were conducted in English for the majority of the artists and in Farsi for the Iranian artists. I later translated these interviews myself. Three of the artists chose to answer the questions in written form due to their health and other circumstances as well as bandwidth issues. One artist from Japan hired an interpreter who joined the interview and helped with translation.

The next chapter covers my analysis of the musical pieces and the visual artworks held in the exhibition. I present a fairly technical analysis of the musical pieces in terms of rhythmic and melodic material, harmonic material and textures, instrumentations as well as texts, and the translations of vocal pieces, and my observational findings from the exhibit.



## Chapter Three

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### Selection Process

The musical selections below were chosen from a list of more than 100 pieces of instrumental and vocal music of various genres and traditions which I gathered over a few months. There were many factors to consider when selecting the pieces such as tempo<sup>45</sup>, period<sup>46</sup>, texture<sup>47</sup>, melodic and harmonic features, genre<sup>48</sup>, timbre<sup>49</sup>, aesthetic qualities, and recording quality. Since the studies concerning music perception and cognition have mostly been conducted on Western music theory and practice, I chose to include non-Western musical pieces as well to research any similarities in the perception of Western and non-Western musical practices.

I found the selection process fulfilling yet challenging as I was hoping to create a list that reflected a variety of musical ideas and rich aesthetic value, and that did not lean towards either oversimplified or overcomplicated musical notions. I understood that the musical selections would not all be equally appealing to the large pool of visitors to the online exhibition; however, I aspired to expose those who typically would not listen to musical pieces outside their preferred musical world to a sampler of what the larger musical world has to offer. This exposure has potentially impacted visitors in different ways that were not documented due to the limited amount

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<sup>45</sup> "Tempo" refers to the speed of the music, i.e. slow, moderate, or fast.

<sup>46</sup> "Period" refers to the time and era in which the composer lived and the musical characteristics of that era. Musical periods include Medieval, Renaissance, Baroque, Classical, Romantic, 20th and 21st Century (modern music).

<sup>47</sup> "Texture" refers to the number of layers in a musical piece. It varies from one instrument or a single vocal line (solo) to incorporating a large number of voices or instruments as in polyphonic music, where there are many layers of musical ideas leading to a dense texture.

<sup>48</sup> "Genre" broadly refers to a set of musical characteristics found in a musical tradition for example: pop, country, classical, folk, or jazz.

<sup>49</sup> "Timbre" refers to the sonic quality or tone colour of an instrument or a voice. For example, how the sound of a piano differs from the sound of a violin.

of time, resources, and scope of this thesis. I strongly believe it could be a valuable insight into the impact on the audience when the exposure is unexpected and could possibly evoke a profound reaction.

In creating the list of musical selections, I narrowed it down to just eight in order to make the online experience feasible in terms of the time visitors would spend on their visit. Additionally, I focused on contemporary pieces composed after the year 2000, with the exception of the Scriabin étude, which belongs to the late Romantic and early modern era. I used the étude to create contrast with two other piano pieces in the list, and to discern how the artists' visualizations might differ; I was curious to find out whether the different stylistic features in these pieces would result in distinct visual manifestations.

As explained above, I assigned each artist a piece from this list and asked them to choose another one based on their preference. In the next section, I present the works of art in each room following a short description of the musical piece they were inspired by in the order of their appearance in the virtual exhibition.

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## VisualEars Project Rooms

Following my quest to discover possible commonalities among the visual works of art and an in-depth observation of all the works in each room, I noted common themes and elements which I categorized under distinct subsections. As seen below, these subsections include the artists' insights and reactions to the pieces. I recorded and extrapolated these reflections from my interviews with them as well as through my own subjective observation about what was not ar-

ticulated in the interviews yet was recognizable among the majority or a number of works. The titles of these subsections refer to the common elements shared among many of the works.

### 1. "Avminnast"<sup>50</sup> by Nils Økland- 2004

"Avminnast" is a folk/contemporary classical piece for Hardanger fiddle and harmonium. The Hardanger fiddle is a Norwegian folk instrument. It has a distinct tone due to the innate overtones produced by the instrument. It can therefore create a drone in addition to the performed melody. This piece is written in the key of G major. The melody is sparse, melancholic, sweet, and delicate. It's a slow instrumental piece with highly evocative emotions and visual imagery, as if the music invites you to a spiritual event where you can contemplate and reflect on all aspects of your life. In this piece, the composer has created a work that not only blends traditional folk music features with those of contemporary art music, but requires that the indigenous Hardanger fiddle be played in a nontraditional manner.

"Avminnast" is part of an album titled *Bris*<sup>51</sup>. Some of the pieces in this album are inspired by the soundtrack of a play called *Melankolia* for which Økland wrote the music. *Melankolia* is based on Jon Fosse's novel about the Norwegian painter Lars Hertervig (1830-1902)<sup>52</sup>. Lars Hertervig was a visionary Norwegian painter whose works

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<sup>50</sup> According to Nils Økland, "Avminnast" was used by his parents in their own dialect, which he interprets as summing up something that has happened, putting it behind you and moving on, or having a short sleep, summing up something that has happened and moving on.

<sup>51</sup> In Norwegian, "Bris" means breeze.

<sup>52</sup> <https://www.forcedexposure.com/Catalog/okland-nils-bris-cd/RCD.2042CD.html>

consisted of remarkable realistic landscapes with contrasting colours (Appendix H). He had a unique style and later adopted more pure and natural colour schemes.<sup>53</sup>

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<sup>53</sup> [https://archive.is/20150131145459/http://sparebankstiftelsen.no/en/Our-Art-Collection/Artists/Lars-Hervig/\(bio\)/show#selection-225.0-225.685](https://archive.is/20150131145459/http://sparebankstiftelsen.no/en/Our-Art-Collection/Artists/Lars-Hervig/(bio)/show#selection-225.0-225.685)



Fig 1: Alan Daysh



Fig 2: Joubeen Mireskandari



Fig 4: Randi Helmers



Fig 3: Johanna Reynolds



Fig 5: Benjamin Tavakol





Fig 6: Farnaz Yavarianfar



Fig 7: Amanda Reeves

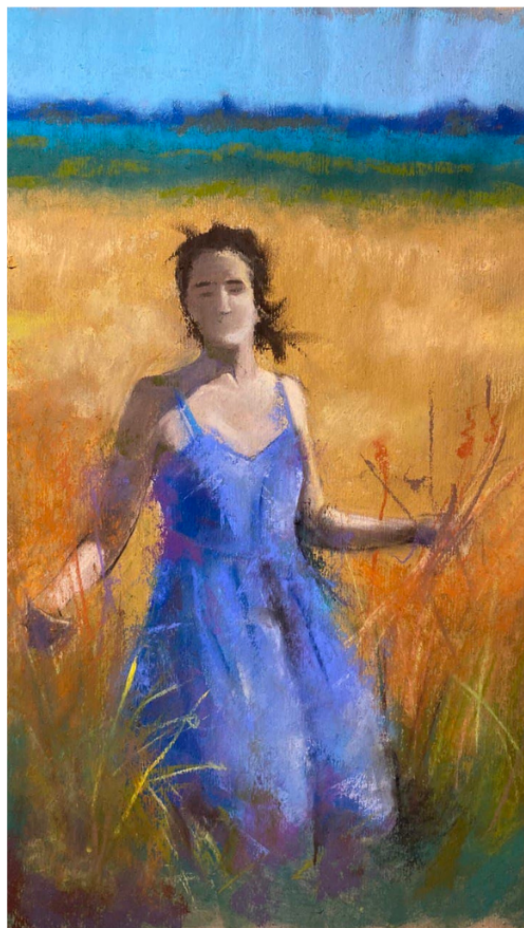


Fig 9: Hamed Rafi

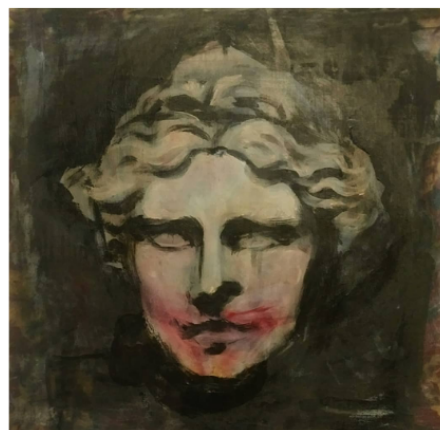


Fig 8: Amin tavakol



Fig 10: Niki Hare

### *Open spaces*

Although there is no evidence whether "Avminnast" is inspired by any of Hertervig's paintings, something in this music reminds me of natural landscapes. Entering Room One, there are 10 works: nine paintings and one photograph in black and white. For the most part, the paintings in this room are subdued and reflective. There are a few things that caught my attention in my observations. Spacelessness exists in all these works, from the stage photography of Jouben Mireskandari (Fig. 2) to the impressionistic paintings of Hamed Rafi (Fig. 9) and Alan Daysh (Fig. 1). Alan's first impressions of the piece were "[b]lack, open spaces, sun through clouds, misty grey, subdued colours, dark bass notes, light in the clouds, hills, mountains, moving clouds, cool mountain air, pastel colours, uninhabited, remote, low clouds, melancholy, slow movement of the violin/cello, hills and sky merge, soft lines." He stated that "[t]he music has an ambient melancholic feel to it and it didn't suggest any defined subject so after reworking the oil with lots of blending, I eventually got to the point where the painting was just about space, tone, and more subtle colour harmonies." It is worth noting that the music in the album has been described as "ambient nu folk<sup>54</sup>". I suspect that the openness of the Hardanger melody and the breathy timbre of the instrument represent a vast openness in our view as well as an openness in our thoughts, and allow them to not be squeezed into a particular space.

### *Yearning*

The notions of loss, mourning, and yearning are particularly evident in Jouben's photograph (Fig. 2), and the paintings of Amanda (Fig. 7) and Randi (Fig. 4). Jouben's work depicts a

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<sup>54</sup> "Nu folk" refers to a genre whose elements derive from both folk and indie pop or rock. Ambient music is a form of instrumental music that is mostly concerned with creating distinct tones, textures, and atmospheres. Therefore, conventional and formal compositional methods are not typically at the core of ambient music compositions.

self-portrait of the artist with a naked mannequin in his hands. The mannequin has a veil that is supposedly meant to cover her, but you can see the naked body underneath the veil. The veil is an arbitrary and absurd element of habit in this context. The gesture in the photograph is conceptually bold and shocking considering the geographical and cultural background it is referring to. Women are required by the law in Iran to cover their hair and abstain from exposing themselves. The concept is spaceless and sad; indeed a tragic fact that can trigger bittersweet memories of the past. Joubeen pointed out that the naked mannequin is an alluring and seducing figure, presenting a sense of longing and yearning for something, and the desire to reach something while you are losing it. In fact, these nostalgic elements in the musical piece are noted by all artists. Randi (Fig. 4), who had met the composer in her years in Norway, describes her first impressions of the piece as “scratching out my heart and soul.” Facing the painting, she explains that the reddish-orange spot symbolizes the heart, and the green spot represents the forests in Norway and the folklore that she knows pretty well. She felt that there was a connection between the folk music and the ancestors, a notion that she drew upon to visualize the piece. Johanna (Fig. 3) felt wistfulness and a mourning quality in the music. It made her “feel homesick,” although she had never been to Ireland; however, since she is of Irish descent, the music made her sad for not having gone there yet. She visualized the damp air and the coastal areas in Ireland, and her colour palette is supposed to evoke these feelings and senses.

Amanda found this piece to be nostalgic too, but she stated that she knew the piece and felt comfortable working with it. It made her “think of places where I would long to be.” Niki (Fig. 10) emphasized that a gestural method would be the best to visualize the musical pieces. To her, the piece was somber and her colours depicted that feeling.



On the other hand, Hamed (Fig. 9) stated that the emotions associated with the musical piece triggered memories of scenery from his past film experiences; therefore, he found them fitting for the painting. He took a photograph in a field after he listened to the piece and submitted the painting of this photograph to the project. The painting is impressionistic and does not have vivid details. It resembles a memory of the past. He thought that the musical instruments created an atmosphere he found somewhat similar to a section of the *Lord of the Rings* soundtrack. The instruments' sounds allowed him to visualize memories of the scenery. His perception does not refer to mourning and loss like the other artists, but it indeed reflects memories of the past.

### *Blue Skies*

Blue skies are seen in paintings by Hamed, Johanna (Fig. 3), Alan (Fig. 1), and Farnaz (Fig. 6). It does not seem to be a mere coincidence, since all four artists mentioned that the music reminded them of a vast open space. Johanna's sky occupies almost three quarters of her painting. For Farnaz, the blue sky represents the hope that she wants to convey to her audience. The characters in her painting are candles that are burning and melting into nothingness. Nevertheless, the blue sky in her painting sends a hopeful message that good days are on the way. According to Farnaz, the burning candles and melting characters are visualizations of the inner sorrow felt in the Hardanger melody. For Hamed, the music calls to mind the landscapes and scenes he has watched in films related to the Middle Ages such as *The Lord of the Rings*.

Looking at both Alan's and Hamed's paintings, one can notice various horizontal layers stacked on top of one another to create the impressions of the landscape in the lower half, while the sky occupies the top half. Niki's (Fig. 10) painting for *Avmin-*

*nast* has small patches of blue amidst the dark collage of squares and visible textures. She stated that she was not consciously planning to paint anything specific. Instead, she allowed her intuition to take over and paint for her. The sky represents hope for Farnaz, probably a metaphor for the unlimited opportunities out there, far from us yet still visible. What strikes me is the use of shades of blue in most of these paintings: blue, turquoise, sky blue, baby blue, and teal. I also found it interesting that most of these artists live in or are from similar altitudes in the northern part of Europe: Norway, Sweden, the U.K., and Ireland. Perhaps in a way, *Avminnast* is truly inspired by the landscape paintings of Lars Hertervig, hence coming through to the imagination of some of the artists in this room as landscape imagery.

### *Feelings on the Canvas*

Benjamin (Fig. 5) mentioned that he was only visualizing the feeling he perceived from the music: the timeless, spaceless feeling that floats around the face he painted, a vague image of a person, an intense yet undefined emotion and memory of a person. One can notice the emotional reaction in the figure. However, it's difficult to understand the depth and type of emotions it is feeling. The figure might even be asleep, but there is something profound and moving when you look at this figure and listen to the melody.

Amanda (Fig. 7) emphasizes that she is not painting anything specific. In fact, she is always fascinated by people trying to find patterns or even finding patterns in her paintings. Perhaps my exposure to the other paintings and hearing from the other artists leads me to believe that there is a cliff or a mountain in Amanda's painting: a geometric abstraction of what you would see in an open landscape, a modern take on the imagery in front of us and nature. The blue colour in her painting is enthralling in contrast to the deep black and amber.

Like Benjamin's, Amin Tavakol's painting (Fig. 8) is eyeless, spaceless, and timeless. The hair pattern reminds us of Baroque-era figures, but that is the only hint we get from the picture. The figure has probably devoured or sloppily eaten something red, but I can't resist thinking of blood, as opposed to red strawberries, for example. It appears that the music gives me hints such as mystery, sadness, and memory, and my brain conjures up the image of blood, an appropriate metaphor for red in my perception in this context.

### *Figures With No Eyes*

Another point that captured my attention was the fact that the human figures in none of these works revealed the presence of irises (Figures 2, 5, 6, 8, and 9). The eyes are either closed, faintly visible, or not present at all. I assume the eyes and irises are our windows to the outside world, and this piece of music is the antidote to the outside world. It is instead an invitation to dive deep into the inner world and stay there. The inner world and the vast open space can almost mean the same thing here in this piece. Either way, you are in the midst of an imagery that is stretched beyond you and your ordinary life.

## **2. "A Trace of Grace" by Michel Godard, Alim Qasimov, Rauf Islamov, and Hüsni Şenlendirici - 2016**

"A Trace of Grace" is an original composition by Michel Godard for the serpent<sup>55</sup>, violin, and bass guitar. In the rendition that I used for the exhibit, two musicians from Azerbaijan (Alim Qasimov, voice, and Rauf Islamov, kamancha<sup>56</sup>) and one from Turkey (Hüsni

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<sup>55</sup> A serpent is a low-pitched wind instrument that looks like a snake and is related to cornet and tuba.

<sup>56</sup> The *kamancha* is an Azeri instrument similar to the Iranian *kamanche*, but also found in Turkey – a folk instrument known as the *kabak kemane*.

Şenlendirici, clarinet) are improvising with Michel Godard, who starts the piece with an arpeggiated ostinato pattern on bass guitar. The simple arpeggios lay the foundation for the piece throughout. There are improvised melodic phrases by all instruments layering the melodic texture, which produces an exquisite and profoundly impactful interaction among the instruments and results in a sublime and rich pool of melodic material. This is a perfect example of using Western classical music, jazz elements, and *mughams* (Azeri melodic modes). The combination of the instruments and the sensibilities of the performers produces a transcendental experience for the audience that is bone-chilling and spiritual. The vocalist is an internationally acclaimed master singer of mughams. Mughams constitute specific modal systems in Azerbaijani music that are similar to the *maqamat* (melodic mode, plural) of the Arab world, the *makamlar* of Turkey, and the *dastgah* of Iran. The remarkable ornamentation in this singing style is distinct from Western singing styles and requires utmost technical ability on the vocalist's end. The piece is written in G minor.

### **A Trace of Grace<sup>57</sup>**

Michel Godard, Alim Qasimov, Hüsni Şenlendirici, Rauf Islamov

Do not take me, my friend, to the desert today  
Çəkmə ey dust, bu gün, damən-i səhrayə məni

No, don't take me to this show  
Yoxdur ol mah, aparma bu tamaşayə məni  
I've been haunted by fairies, cool geishas  
Oldum aşuftə pərilər, səri geysusindən

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<sup>57</sup> <https://www.musixmatch.com/lyrics/Alim-Qasimov-Michel-Godard/Trace-of-Grace> Translation obtained from Google Translate.

What can I say to Adam, who went to this world of mine  
Nə deyim Adəmə kim, gətədi bu dünyayə məni  
Language, we will see the opposite in the mosque, O language  
Əksi-rüxsarünü dil, camidə görcək, ey dil

Put a hundred colours in one, the desire of others  
Saldı yüz rəng ilə bir, özgə təmənnayə məni  
Thanks to the cypress-woman, until she went cold  
Sayeye sərvə-qədin, ta ki gedibdir sərdən

Look at me laughing offended, laugh at me  
İncidib gülşən ara, güldə olan sayə məni  
Kakilin, ay ay ay ay  
Kakilin, ay ay ay ay  
Yaaar  
Yaaar

I sank into the black (darkness<sup>58</sup>) with enthusiasm  
Şövqü ilə qarəyə batdım elə kim

Look at the people, look at the Kaaba<sup>59</sup>, the moon, the moon  
Oxşadıb əhli nəzər, Kəbə-yi ulyayə məni, ay ay  
So much for my kindness, aaay, it would not be ashamed to be a flower  
Ülfətimdən bu qədər, aaay, etməz idi ar ol gül

They imitated, I know, Sayyid-i disgraced me  
Oxşadıblar, bilirəm, Seyyid-i rüsvayə məni  
Ay, ay, ay  
Ay, ay, ay

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<sup>58</sup> Translation by Dr. Irene Markoff.

<sup>59</sup> *Kaaba* is a cubic structure at a mosque in Mecca, which is the most sacred place of worship in Islam.

They imitated, I know, Sayyid-i disgraced me  
Oxşadıblar, bilirəm, Seyyid-i rüsvayə məni  
Yar, ay ay, aman, aman, aman ey  
Yar, ay ay, əman, əman, əman ey  
Songwriters: Michel Godard / Seyid Azim Shirvani

There are nine works in this room, consisting of one ink on paper, one inkjet print, and seven paintings. In some ways the visualizations are very different from one another. However, there are some elements that are shared.

What interested me was the presence of black in all the paintings, and orange in some of them. The vocal part in this piece is tremendously powerful and, as all these artists expressed, was the main driver for their decisions. In terms of the painting process for "A Trace of Grace," Hamed (Fig. 18) found it to be slow and challenging, in contrast to the easy and smooth process for his other piece, "Avminnast." He used a technique that he had not used in a while, and the music was not always a great accompaniment to his process. He mentioned that he was particularly attuned to the rise and fall of the melody. He added that knowing a song and anticipating its rise and fall helps him a great deal in making decisions or making informed improvisatory moves on his canvas. Ernesto (Fig. 17), on the other hand, found the piece to be somber, tranquil, and at times moving. The imagery it brought up for him included a dark blue desert, a long path, taking a journey, and moving through time. He was drawn to the bass and clarinet combination and found the vocals difficult to explain. His concept of journey was realized through the unfolding of the printed images in the book.





Fig 11: Richard Ketley

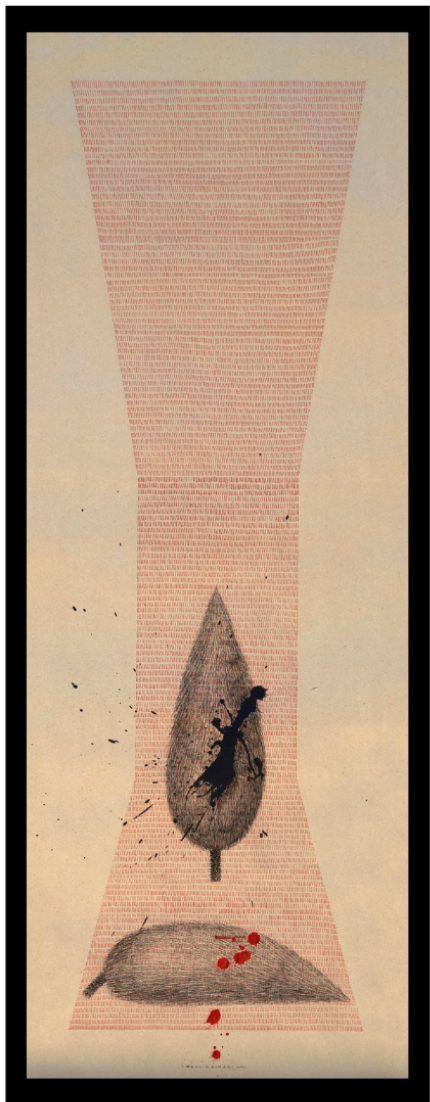


fig 15: Sogol Kashani

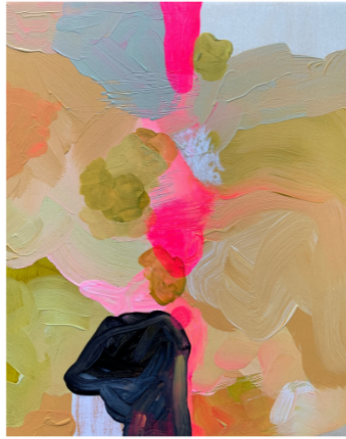


Fig 12 and 13: Shannon Pawliw



Fig 14: Amanda Reeves



Fig 16: Borg de nobel



Fig 17: Ernesto Hidalgo



Fig 18: Hamed Rafi



Fig 19: Larissa Uvarova



### *Heartache*

Amanda (Fig. 14) stated that the song was calming and soothing, which lowered her blood pressure and heart rate. She was curious to find out what the song was about, as she could hear the heartache and intensity in the vocals: “It’s very specific to his voice and the cadence and the timbre, but ... it functioned as a whole. As it’s very controlled in the modulations, not too much on any side; highs and lows and intense and soft.” She speculated that the song could be about genocide, or his wife killing herself; however, she found herself in a state of bliss while listening and did not have any desire to ruin her experience. This feeling of a universal heartbreak was also perceived by Shannon (Figs. 12 and 13), who thought the voice was almost wailing halfway through the song: “a controlled wailing.” She went on to say that the song could very well be about “the futility of wars, and conflict and just how absurd and heartbreaking it is.”

Similarly, Borg (Fig. 16) found the piece to be overwhelming. Her impressions of the singing were “desolate, travelling, dark, being far from home, desperation, someone never be healed.” She added: “[h]e was crying as if he was on his own on a mountain and nobody ever heard him.” She emphasized that the piece represented a lot of space, which she visualized with big circles. The spaces she visualized are also “the spaces in your body, where you can’t see, going in the bones, going in the desert, going in the dark, going into lostness of that song. [You can] feel it more than think of it.”

Sogol (Fig. 15) stated that she was focused on the vocal melody as well and found it painful and sad. Her work presents blobs of black and red ink on two cypress trees. In fact, she has been working on cypress trees for a few years. According to her statement,

Hafiz and many of his contemporary poets considered the cypress a symbol — a tree with a unique significance: its tall figure evoked that of the beloved<sup>60</sup>, thus representing the toils of love, and it was also considered the only kind of tree that has drunk a drop of the Water of Khizr<sup>61</sup> which, as Hafiz has attested, granted it the power to endure the cruelty of Autumn.

In Iranian culture, black is associated with mourning and loss, and red is mostly associated with blood when paired with black. Although Sogol did not directly refer to any of these symbolic elements, my interpretation of the piece offers a sense of loss and mourning for what was once a precious belonging.

Borg picked earthy, ancient pigments and dark colours for this painting because to her the piece was a long complaint. She said: “He went on and on, what is he on about? or maybe, you have the space like [a] desert and you can complain as much as you want.” In addition, she found a lot of imagination and love happening in the clarinet part and that led her to insert stars and some bright colours in the painting as well. Amanda (Fig. 14) mentioned that she made major colour changes during her painting process. For example, she added the orange colour at the end. In general, colours are “major driving forces” for her. Just like Amanda, Shannon (Figs. 12 and 13) feels drawn to colours, and tends to depict even disturbing topics in a playful way, hence the bright colours in her paintings. She approached the colours in the painting in an intuitive way; therefore, some colours disappeared on the canvas towards the end as she blended

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<sup>60</sup> The “Beloved” in Hafiz’s poetry is regarded as both sacred and secular. This is a term that is utilized frequently in analyses of secular and mystical poetry from the Near East. Being a reference open to interpretation, as Hafiz himself has alluded to, the concepts of love and beloved are still to this day subject to various interpretations grounded in different traditions and schools of thought.

<sup>61</sup> Khizr or Khidr is believed to be the mythical guardian of the sea in both Islamic and non-Islamic traditions, and one who is immortal. Accordingly, the expression “Water of Khizr” is considered to be the water of eternity that grants a person an eternal life. Therefore, a cypress tree is said to have been given a drop of the water of Khizr, which makes the tree immortal and untouched by weather adversities.

them in with other colours. As an example, she thought the hot pink was too cheerful for the song and consequently mostly covered it with other colours.

### *Endless, Beautiful, and Strong*

Larissa (Fig. 19) informed me that she cried for two days after listening to the piece of music. She was utterly moved by the beauty and magnificence of the vocals. She felt responsible for providing a proper visualization of the beauty and grandeur of this piece. The piece was strong and larger than life, making her feel small. She wanted to create a visual piece to invite the audience into this universal, strong, and beautiful experience. She thought this song could treat the soul and serve very well as a healing element. In layering her painting with multiple layers of white, and shades of blue, she wanted to create a feeling of endlessness: a kind of universe in another universe. She added that blue offers a sense of support, something that calls you directly and offers its healing and support. She felt that the song first made her feel small and then filled her with something much greater and stronger than herself: the magnificent Creator himself. Larissa indicated that the vocalist invited her to feel something greater than herself and she accepted the invitation. The music helped her create a painting that she hopes will offer the same kind of healing and recovery to the audience.

### *Familiarity and Subjectivity*

Richard (Fig. 11) has spent a lot of time in the Middle East for work. He stated:

This piece resonated deeply with me ... many of my works are in response to Islamic architecture, music, and calligraphy, and the colours and sounds of the desert. This work is however not about the desert, it is about the rich sounds and the richly textured sounds in this extraordinary piece of music. I have kept the idea of sheet music formed from the drips of ink and combined these with bold marks and a mauve pallet.

In speaking with the artists, I found it intriguing that the concept of the desert is floating in many of their interpretations of this song. It makes me wonder whether it is an ingrained idea that the whole Middle East is a big desert as portrayed in the media for so long or if they looked up the lyrics online and came across “desert” in the words.

Although most of these paintings contain black, the rest of the colours appear to be individualized choices for most of the artists. For example, Hamed (Fig. 18) associated the somberness of the song with a sepia palette, and the colours Ernesto (Fig. 17) chose are a continuation of his “monochromatic colour schemes to create a sort of ambiguity for the viewer.” He adds: “I find that there is a lot of attachment to colour that I like to sort of stray away from because it allows more thoughts to come in when you interact with my stuff.” This subjectivity revealed itself in Larissa’s painting (Fig. 19), as well: the yellow strip as the present moment. According to her, her painting is a map of everything, of endless and circular life, the map of the universe, where death and our present time and our future are all there in front of us. She emphasized that the white clouds are where we will go after life: “Maybe it’s God or something.”

### *Visceral Experience*

Shannon (Fig. 12 and 13) and Ernesto (Fig. 17) thought about the role of tactility and embodied understanding of the music. Shannon expressed that she embodied the song in actuality, as she thought that “[p]ainting is just the most immediate physical expression of music.” Ernesto also mentioned that his works are focused on “sensory feelings” and working with his hands. He realized the significance of this physical touch and how he felt as he was moving through the music. He decided to represent two hands on his prints to signify this embodied relationship with music. The intimate relationship between the body and the music emerged in many

of my interviews, with the artists highlighting the fact that perception can be greatly filtered through and contingent upon the body. In Chapter Five, I will compile the different ways some of the artists described this embodied relationship with music.

### 3. **"The Puzzle" by Dawn Davi - 2019**

From an album that I released in 2019, this is one of my own compositions in G minor. It is a composition for piano accompanied by a synth choir during the chorus. The main melody, in 7/8 time<sup>62</sup>, goes through variations throughout and alternates with the haunting and dramatic piano and vocal chorus. The melody travels through different octaves in the variations. Various time signatures and the repeating melodic and chorus patterns create a great deal of movement in this piece. The changing dynamic levels throughout the piece reflect the journey from one section to the next. The main melody keeps making back-and-forth gestures in a small range on the piano, sounding like permutations of a few notes, so the piece feels very busy. In the chorus section, there is a thicker texture in the chords. The swelling choir in the synthesizer gives the impression that a group of people are cheering for or warning about something. They grow louder and louder in volume through the chord progressions until everything drops and the piano melody and the underlying harmonic arpeggio-like accompaniment reappear. In the exhibit, there are nine works in this room: one inkjet print and eight paintings.

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<sup>62</sup> The 7/8 rhythmic pattern in the melody has a 2-2-3 grouping in its 7 beats.



Fig 20: Richard Ketley



Fig 22: Johanna Reynolds



Fig 23: Mana



Fig 21: Kaoru Shibuta



Fig 24: Yana Yo



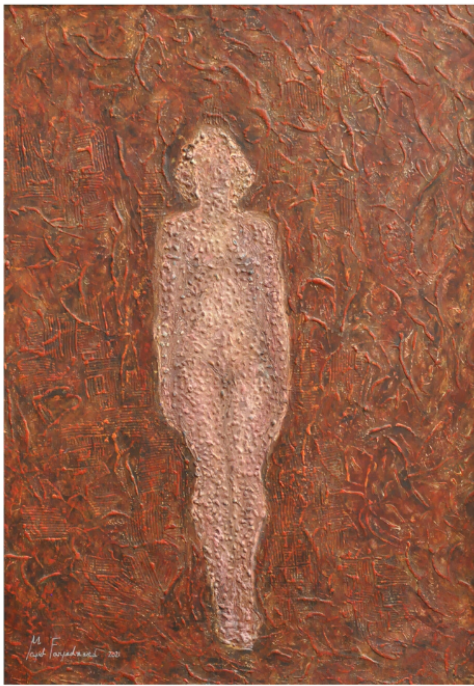


Fig 25: Majid Farjadmand



Fig 26: Farnaz Yavarianfar



Fig 27: Karen Gamborg Knudsen



Fig 28: John Avila

### *Colour and rhythm*

There are two intriguing elements in this series. 1) Pink appears in most of the works in this room (Figures 20, 21, 22, 23, 24, 25, 26, and 28). Even though I had advised all the artists to disregard the visuals in the YouTube link I sent them, I wonder whether the pink album cover influenced their colour palette either consciously or subconsciously. If this were the case, it could be an interesting exploration, since none of the other pieces of music had explicit associations with the video links I provided to the artists. On the other hand, as the composer choosing the album cover, I found pink to be the perfect colour for the mood and content of the album. Thus, I would also be curious to explore in depth what musical elements could have led the artists and myself to select pink. 2) The rhythmic structure of the piece seems to overpower the other elements and many artists referred to the rhythm as the major influence. As the only synesthete who visualized this piece, Kaoru (Fig. 21) stated that “[f]ractions were falling off from above,” small ones and so many other ones, which were all colourful. His painting looks like a canvas filled with confetti as various bright colours and objects seem to pour down the canvas. He mentioned that the piano sound is a colour among the colours on the canvas, and added that colour tone depends on whether the piano is old or new, how pianists play, or how the song is composed. According to him, each musical piece has its own colour tone. Johanna (Fig. 22) also reflected on the piece's rhythmic aspect and noted that the piece was more physical to her: “noticed my body danced more.” Her piece shows another seascape with dark rocks and a pink-toned sky. She referred directly to the left-hand arpeggio and the fact that “the piano line is almost wandering.” This led her to create rocks in that particular way as the piece evoked a “close portrait of a cove.”



### *Dual Feelings*

Farnaz (Fig. 26) regarded the piece as a reflection of the composer's calm personality and a complaint to God. She reflected further that the sound of the piano seemed light pink and purple, and symbolized a calm and comforting atmosphere. She believes that artists convey different emotions and different thought processes, such as complaints to God, in their artworks or in their music. Amidst the calming and soothing atmosphere of the piece, she realized that there was a hopefulness floating in the air –the kind of hopefulness you see in all the European masterpieces or the kind that you see in the nature. “No matter how frustrated or upset you are, nature always brings you hope and makes you feel better,” she added.

The first impressions of Majid (Fig. 25) were “isolation, loneliness, the past, lost innocence, and childhood.” The colours resulted from the feelings conjured up from listening, which were all subconscious. As he stated, he consciously selected the technical form and composition, in particular the texture in the painting. He was highly focused on his feelings and emotions induced by music. He affirms that piano music always makes him happy and impacts him greatly. In addition, at times he felt that the change in tempo and emotional content of a musical piece intensified his hand movements, which astonished him.

John (Fig. 28) stated that the music was adventurous and emotional, and provoked a moving-forward emotion. He visualized the adventure in an alley close to his house:

[B]asically their friend that they know really well gets lost in this very dangerous place, but they have to keep moving forward. They have to find him so they can fulfill this quest and goal. They're basically leaving their familiar territory and going into a place they don't know of and they are scared of. And you can tell the first person is holding the sword very tightly.

He referred to the change in rhythm halfway through the piece, which created a change of emotion. As the composer, I attest to the moving-forward and adventurous quality of the piece which I attribute to the piece's rhythmic structure.

Following the same notion in different words, Yana (Fig. 24) saw the piece as a wave, going up and down. This impression resulted from the two contrasting sections repeating throughout. In contrast to the other artists, she established a specific association between colours and sounds, pointing to yellow as representing the light feelings in the beginning of the piece, and to blue and black for the intense expressions in the piano's bass notes in the subsequent chord clusters.

Richard (Fig. 20) described his thoughts about this project before starting the painting. He was occupied with many questions:

Should I try and link the two paintings together through a shared palette, allowing the mark-making to reference the different types of music that I was listening to? Should I paint, as a rebel, in contrast to the music and produce [a] painting that was energetic and noisy compared to the rather calming pieces of music. Can large marks be calming?"

The medium he finally selected was drafting film. He explained that drafting film is "a transparent medium which allows me to work on both sides of the film and allows me to experiment with many layers and layers that interact in ways that the mind struggles to comprehend." He mentioned how the movement and musical patterns create the tempo and impact the listener. He felt that these movements and patterns influenced the painter's decisions directly. Nevertheless, he expressed his difficulty to "move beyond the subtleness of the music," which resulted in him producing "a work with a subdued palette and strong but not overly energetic marks."

### *The Title*

By comparison, Karen (Fig. 27) and Mana (Fig. 23) were the only ones who were drawn by the title of the piece. Karen declared that she found herself engaged more cognitively than emotionally. In order to experiment with a change of subjects from her usual work material, she resorted to “domestic and intimate spaces” and chose house plants as her subject matter.

Mana was attentive to the overall mood of the piece as well as the title. She stated that in her painting, various people and creatures from all walks of life are seen waiting impatiently as a group for their turn to join this greater puzzle of life. The music gave the impression that unfortunately there are a lot of lost opportunities for people to fit into the puzzle of life. She believes that we, as human beings, are always striving to find our fit, whether a job, a place to live, a romantic relationship, or a friendship. We are always struggling to choose, and choosing proves to be very difficult. Often we are left with something that is ultimately unfit for us. The choir in the piece is represented by a choir of people of different shapes, sizes, colours, and perspectives. Therefore, Mana views the world as a puzzle that is missing a lot of pieces and is therefore very difficult to solve. She believes that there is an innate balance and harmony in music that is always missing in the rest of the world. The ups and downs throughout this piece brought up thoughts for her about the similarities of our lives to a big puzzle. She felt that the process took place on a subconscious level, as she was not actively focusing on certain elements in the music in order to visualize it. However, her previous experiences and her memories of similar musical pieces evoked certain feelings and thoughts. She emphasized that the emotional quality of the piece generated by the delicate organization and arrangement of notes was the most impactful.

4. **"Étude for Piano in C Sharp minor, Op. 2, No 1." by Alexander Scriabin, performed by Vladimir Horowitz - 1962-1973**

Alexander Scriabin was a late-romantic/early-modern pianist and composer who achieved fame during his lifetime. He was initially influenced by Chopin and later found himself drawn to the atonal pieces of Arnold Schoenberg. This étude is slow and emotional. Borrowing ideas from Chopin, it has a very dense texture produced by multiple stacked chords in both hands. The melody builds and subsides quite a bit throughout the piece. This piece has a subtle and soft side to it, and yet the density of the lower octave chords gives it a strong and robust character as well. The main melodic phrases are written in a stepwise manner, ascending gradually step by step, reaching a climax, and then descending stepwise. The piece moves through different keys and then circles back to its original key for the ending. Romantic characteristics can be seen in this piece, such as an expressive melody, complex harmonic progressions, and the largely through-composed form. It is worth mentioning that Scriabin was influenced by synaesthesia, as well as the teachings of theosophy. He devised a keyboard known as the *tastiere per luce* or *clavier à lumières* for his composition "Prometheus: Poem of Fire." This keyboard was to be attached to coloured lamps through which he would associate the keys in the circle of fifths (in reality, the tonics of the keys) with different colours (colours he intuitively associated with specific pitches).<sup>63</sup>

In the exhibit, this room has six works, consisting of four paintings, one inkjet print, and one ink drawing on paper. Skimming over the room, it appears that there is a patch of blue in all but one work.

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<sup>63</sup> Hugh MacDonald "Lighting the Fire: Scriabin and Colour." *The Musical Times*, 124, no. 1688 (1983): 600.



Fig 29: Yana Yo



Fig 30: Saba Arabshahi



Fig 31: Deanna Gisborne

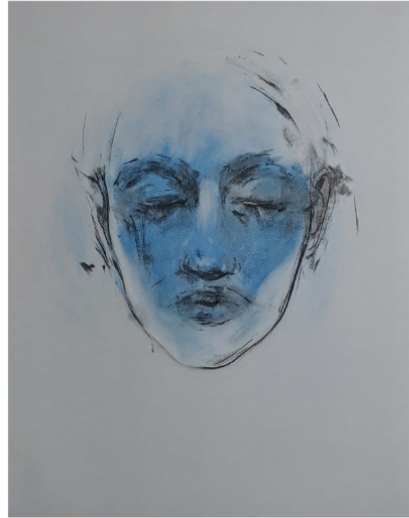


Fig 32: Benjamin Tavakol



Fig 33: Randi Helmers

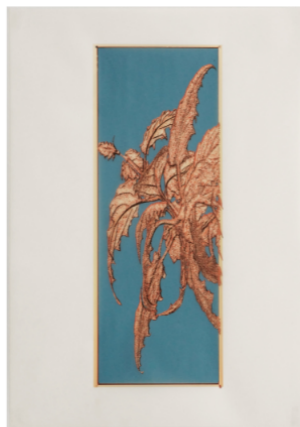


Fig 34: Karen Gamborg Knudsen

### *Stepwise Melody*

As mentioned, this piece boasts an ascending melodic pattern that keeps repeating throughout. This gesture can be seen in Yana's (Fig. 29), Saba's (Fig. 30), and Deanna's (Fig. 31) works. Yana's gradual lengthening of black lines filled with brownish purple symbolizes a set of stairs and offers a visual accompaniment to the ascending melodic phrases in the piano. Saba visualized mountains by creating a complex texture through layering. Deanna's girl figure is seen in different places vertically on the canvas as if she is moving upward. What is interesting in her paintings is that the figures are moving through the depth of the painting and emerging on top on the surface. At the bottom of the canvas, the same figure is seen as an image in the water, perhaps suggesting a blurred memory. She explains that there are caverns that the figure wanders into and then veers off to another place.

The figure at the bottom of Deanna's painting (Fig. 31) is coming apart. The piece sounded melancholic and disjointed to her, like a cacophony. Deanna said that she felt a tone shift in the middle of the piece, evoking a feeling of being submerged. Then the piece starts to meander, as if one is merely wandering around. She added, "I thought the relationship between the two people was kind of disjointed in the image. And there is that split in the middle where you start going underwater and it has an inversion of the figure and it is kind of coming apart a bit." She was drawn to the emotional content of the piece, which evoked imagery for her. She selected blue for the water element and purple for the part where the figure is submerged in the water. "[T]he whole submerging part, I think, led me to the blue so that it would be more watery," she said. She decided that the red would complement the blue and be closer to the colour of the human body. In her opinion, dark purple is very moody, which also reflects the

piece. Her first impressions of the piece were “melancholy, loneliness, wandering, discontent, loss of innocence, curtain pulled, turmoil, delicate, fragile and swirling.” In regards to her choices for the medium, she stated that “you can choose your material based on what you're trying to get across and that can change the piece entirely depending on what you're using or even the surface that you're doing it on.”

Saba (Fig. 30) prefaces the interview by mentioning that "A Trace of Grace" majorly influenced her decisions for both of her paintings, although she did not choose to work on that piece for the project. She felt profoundly moved by it, to the extent that she travelled to the suburbs of Tehran so she could work on her pieces in quiet and peaceful nature, far from the noise of the city. She expressed that the Scriabin piece was more intense and affected her brushstrokes in a way that was impossible to execute for "Elegy for Viola." For this piece, she drew layers of transparent patterns over one another to make it fuller and more intense, which was the quality of her emotions at the time. In a way, these layers symbolized the layers of her inner world that she was digging through and exploring.

### *Sorrow and Serenity*

Saba (Fig. 30) stated that the sorrowful mood in both her pieces were in sync with her introverted nature. According to her, she does not usually work when she is happy and joyful. In contrast, she found that the sadness in the musical pieces prepared her to turn inwards and start working. The process of drawing was meditative for her; she was aware and conscious of this at the time. She chose ink and paper because it allowed her to use precision to depict the silence and notes of the music. She needed to use a concise tool 1) because of the atmosphere created by the music; it was full of emotions yet very focused, and 2) for the sake of



practicality, as she was away from her studio; therefore, she preferred minimal tools, composition, and lines. The whole emotional experience came from the combination of all the musical elements, which inspired visual imagery for her. Her explanation was a testament to gestalt perception and how details and smaller units come together and contrive a whole experience, as previously discussed.

The next artist in this room is Benjamin (Fig. 32), a figurative artist. He pointed out that he listened to the pieces many times and the mood in the music led him to select the colours and medium. He pointed to the music as the source of imagination. What is striking is the shade of blue colour over the figure he drew. The painting exudes a sorrowful serenity, which is possibly what other artists picked up on as well and demonstrated in different ways.

### *Intuitive Practice*

Yana (Fig. 29) refers to the expression of the brush on the canvas. The tools gave her the possibility to “repeat the rhythm of music on the canvas.” She thought it was a “gesture of physical translation of the sound event.” The activity on the canvas seems like a dance to her. On the other hand, she did not pick her colours or subject matter at the beginning. Instead, she used what she called calligraphy, a sort of sketching which she then covered with paint before adding her colours. She kept her sketches in mind and eventually added her colours. Her paintings are generally abstract; however, she typically finds identifiable elements such as a fish, a woman, etc., once the paintings are completed. She highlighted that the painting process is more intuitive to her and based on her 40 years of experience in this field. Nevertheless, she mentioned a pre-established relationship between the colours and qualities in her work. Yellow is associated with very light and high, blue is always very deep, and red is always loud. She has been

conducting artistic research for many years to find out how musical sounds can be expressed in visual pictures. In her practice, she uses graphic notation to translate sounds to pictures.

### *Unwelcome Emotions*

Karen (Fig. 34) made her prints at home from different colours and plants, and then for this project she chose the ones that she liked best. She studied a bit what études were and read about Scriabin. Since he also worked with colours, she emphasized that her prints are the culmination of her research and intellectual process. She mentioned that she would have liked to present the immediate intuitive reaction, but it did not end up like that. She suspected that she considered the juxtaposition of music as an object and the drawing as another object. She intended to blend academic and intellectual thinking with intuitive processes, but she got lost in her thinking, or in the intellectual dialogue between the tones of the music, the Russian composer, and the Iranian (referring to me) in Canada. It is worth noting that even though she generally enjoys listening to melodic music, she rarely plays music while working, as the sound of music is quite a powerful companion. As she puts it, music could be too impactful and too emotional for her: “a call for you to let go more.” In fact, sometimes music can be stressful and “disturbing” for her and it creates “too [many] bodily emotions.” She suspected that the brain became very open when stimulated by music, resulting in a conversation in the mind with the notes and words all appearing in the brain. She declared that she was confronted with this notion in this project.

### *Rhythmic Painting*

Randi (Fig. 33) mentioned that for the most part, the pulsating aspect of the rhythm guided her. Since she is a musician, the “directionality” of the music led her to create a vertical paint-

ing. For her this musical piece evoked images of impressionistic paintings: soft pastels and gardens belonging to French paintings, memory images of that period in art before the war. She also explored the sheet music and thought the gestural elements of the music reflected a form of striving and taking the listener somewhere. This is what Deanna perceived from this piece as well. Randi observed the rubato at the ending of each phrase and imagined it as a stillness happening amidst the powerful and industrial-sounding chord clusters. That is what the pond is reflecting at the right bottom corner of Randi's piece. She added, "[T]he piece kind of sweeps up and then ends, you know, on a pond." She felt the piece needed a contrast at that point, which is where the fire comes in. She selected dark transparent brown because of its antique and deepening quality, while the fiery bits evoked a "campfire image or something really ancient pagan," where people gather around the fire in a primitive and primal manner, she explained. She indicated that although the piece of music was highly sophisticated, there was a rawness in the expressions in it that resembled fire. The chord progression and textures possess a fire quality, as they sound extremely rich and strong. Her colours were based on her "impressions of the impressionists", as she put it. She managed to create a painting that presented "a juxtaposition of the powerful raw elements in the chords and the Zen-like stillness of the rubatos."

##### 5. **"Oro Santo" by Javier Limón featuring Buika - 2010**

"Oro Santo" is a flamenco/jazz fusion in B minor featuring Buika (who has a remarkably strong and raspy voice), two flamenco guitars, and a cajon<sup>64</sup>. The intermittent cajon partly accompanies the vocals and guitars. The guitars play a variety of melodic and rhythmic patterns

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<sup>64</sup> The *cajón* is a box-like percussion instrument native to Peru.

and provide a complementary character to the voice at the centre of the piece. The vocal technique generates a very smooth flow through the melodic phrases by distinct vibratos that the vocalist utilizes. The form follows a similar pattern with theme and variations. The vocal range is pretty wide; however, the high notes do not become overwhelming. The song is in Spanish. The English translation is found below.

***Oro Santo (Angel of Gold)***

In the gloom  
En la penumbra

Of this divine and dark night  
De esta noche divina y prieta

Over the tundra  
Sobre la tundra

That populates my soul always awake  
Que puebla mi alma siempre despierta  
A lament is heard as a prelude to the dead hours  
Se oye un lamento como preludio de las horas muertas

Hours spent in the agony of slow death  
Horas que pasan con la agonía de una muerte lenta

Silence returns to dress me in gold, my saint  
Vuelve el silencio a vestirme de oro mi santo

The memory of my grandmothers returns to make me strong in waiting  
Vuelve el recuerdo de mis abuelas a hacerme fuerte en la espera

The records that taught me to love music are back  
Vuelven los discos que me enseñaron a adorar la música

My father came back after twenty years  
Volvió mi padre después de veinte años

Oh if you came back  
Ay si tu volvieras  
If you came back I would dress you in gold my saint  
Si tu volvieras te vestiría de oro mi santo

I would shut things up so that you can hear my desperate song  
Callaría las cosas para que tu puedas oír mi canto desesperado

If you came back I would dress you in gold my saint  
Sí tu volvieras te vestiría de oro mi santo

I'd shut things up so you could hear my desperate song  
Callaría las cosas para que pudieras oír mi canto desesperado  
If you came back I would dress you in gold my saint  
Si tu volvieras te vestiría de oro mi santo

I'd shut things up so you could hear my desperate song  
Callaría las cosas para que pudieras oír mi canto desesperado

If you came back I would dress you in gold my saint  
Si tu volvieras te vestiría de oro mi santo

Let the world stop so that you can hear my desperate song  
Que se pare el mundo para que tu puedas oír mi canto desesperado<sup>65</sup>

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<sup>65</sup> Source: LyricFind Songwriters: Buika Maria Concepcion Balboa / Francisco Javier Lopez Limon Oro santo lyrics  
© BMG Rights Management

There are four paintings in this room, consisting of two abstract works by Niki Hare (Fig. 36) and Jazmin Gareau (Fig. 35), respectively, an impressionistic painting by Alan Daysh ( Fig. 37), and a digital painting by John Avila (Fig. 38). The first thing that catches the attention is the presence of blue, red, brown, and black in these paintings.



Fig 35: Jazmin Gareau



Fig 36: Niki Hare



Fig 37: Alan Daysh



Fig 38: John Avila

### *Intense and energetic*

The patch of red is quite striking in Niki's (Fig. 36) and Jazmin's (Fig. 35) works, which they refer to as visualizations of the vocals in this piece: an intensity one cannot ignore. Niki mentioned that the piece was energetic; hence, she chose red. She considered it a more colourful piece of music as opposed to her other piece.

Jazmin's interpretation of the piece was visceral. Her impressions of the piece were "very lively," holding "a lot of inflections," "comfortable solitude," "story telling," "walking in a European street full of bars," "refraction and reflection," "love between strangers," "some sort of hurt, maybe some pain," "tension between red and dark blue," and "diagonal." Her work is profound, moving, and inviting.

Similarly, these are Alan's (Fig. 37) impressions of the piece:

warm, open space, vivid summer colours, cool blue sky, movement in the fields, shadows on the fields, deep strong colours, contrast with dark shadows, impasto strong lines, complementary colours, orange and blue dominant, strong light, sense of space from the guitar, strong emotion and power from the vocal, open fields, sense of distance, movement with contrast for the melody line. Overall strong, emotional and warm.

The palette knife as a suitable tool for this painting was mentioned by both Alan (Fig. 37) and Jazmin (Fig. 35). Alan referred to the strength of the song as a precursor to choosing the tool, and Jazmin pointed to the emotional intensity which could be captured and represented by an intense tool like a palette knife. She used the knife to layer colours and create a thin or thick textural effect wherever she wanted. She regarded the painting as warm even though the colours are cool according to the Western colour theory. The landscape that Alan painted belongs to his childhood: The subject also came easily as a childhood memory of cornfields in the summer. I



grew up in a small village surrounded by cornfields and this was a strong image of open spaces and the hot sun.” Alan added that he used the knife in a “semi-abstract” way to convey “the tone colours and lines in order to echo the music.”

After listening to the piece a few more times, he put the horizon a bit higher to let “more colour and power into the painting” as “the warmth and emotion of the vocals seemed to be more striking than the space of the guitar.” It is interesting that once again the song is being presented as warm. I wonder what qualities evoke this sense of warmth. Is it the raspiness of the vocals or the jazz/flamenco elements in the guitar? Or both?

### *Vocals and Rhythm*

Quite differently, John (Fig. 38) painted an episode of a story in which he and his friends are looking for a lost robot. The painting takes place in a location where John lives. He stated that “these are pretty personal to me because these places are very, like, recognizable to me.” It should be noted that John speaks Spanish and therefore his relationship with the song might be different from other artists. He also found the painting dynamic and energetic, and in sync with the song. According to him, the colours are harsh: reds, oranges, and blues in the dark.

What I recognize in this series is the intricate details in each painting. There are tiny brush strokes that give these paintings interesting textures and depths. The voice is the dominant element in this musical piece, and interestingly, in three of the paintings there is an element that dominates the painting: the robot in John’s (Fig. 38) work, the red patches in Niki’s (Fig. 36) and Jazmin’s (Fig. 35), and the golden cornfields in Alan’s (Fig. 37). I speculate that these elements in the paintings are subconscious representations of the voice’s impact. Indeed, the vocal has a

memorable timbre and quality. Although the words are not cheerful and hopeful, there is a contagious energy in the rhythm and a vibrancy in the vocals that are captured by all of the paintings.

#### 6. **"A Place for Us" by Brian Weafer- 2016**

"A Place For Us" is a contemporary instrumental ballad for two guitars. Simple melodic phrases, 7<sup>th</sup> chords, and interesting chord progressions create an emotional atmosphere that is quite sweet and familiar. This piece is written in E minor. There are two paintings in this room, one of which is Mana's (Fig. 39), a minimalist/Fauvist painting of a group of faceless and genderless people and a domestic animal, probably a dog. Colourful variations and permutations are seen in Mana's characters. The other work is Shannon's (Fig. 40) abstract colourful painting with large brushstrokes. What I find striking in the colourfulness of both paintings is the use of identical colours, the blue and orange/salmon in the background, and magenta, green, purple, and dark blue, although I cannot deny that it might only be a coincidence.

The blotch of black in Shannon's (Fig. 40) painting is intriguing, like a black hole sucking everything in, or a black hole from which everything is born. There is also a "fleshy" creature in the purple: "almost like an internal organ, like a large intestine or something," Shannon said. She mentioned that she was not sure what the black and purple patches represented. Unlike the other piece of music, she stated that this one did not inspire her as much. She chose a playful palette to start exploring since she did not intend to paint a specific idea in this case, but rather simply a visualization of the music. Therefore, it was important for her to be liberated from pre-conceptions and plans.

Mana (Fig. 39) stated that this piece reminded her of gatherings of people, perhaps after work where people drink and have casual conversations while this music is played in the background. She thought that it was mostly the mood evoked by the music that helped her with her visualization. She felt that the piece displayed a feeling of togetherness and sweet time spent together. Both of the artists indicated that this piece was very easy to listen to. The rhythmic movement in the piece is consistent and smooth, which is clearly seen in these paintings.



Fig 39: Mana



Fig 40: Shannon Pawliw

7. ***Malka Moma si se bogu moli* by Neli Andreeva and Georgi Genov- 2011**

This song is written in a Bulgarian folk style, led by Neli Andreeva as the soloist and supported by a female choir. The song is modelled on folk music from the Rhodope Mountains region of Bulgaria where there isn't any drone-based polyphony. The piece follows a repeating melodic and harmonic structure throughout the stanzas. At the end of a few stanzas, there are some harmonic variations. The velvety vocals of the solo vocalist produce an intense emotional reaction in the audience. The melody is bittersweet and impactful. There is a delicate aspect to the song, the result of the combination of soft background vocals with the main solo vocals. The texture of this song is polyphonic, which means that multiple independent voices create the harmonic progressions throughout. The song is in Bulgarian. The translation can be found below:

**A Young Girl**

***Malka Moma*<sup>66</sup>**

(Transliteration)

A young maiden prays to God:

Malka moma si sa Bogu moli:

Give me, God, [the] eyes of a dove,

Dai mi, Bozhe, ochi golubovi,

Give me, God, [the] eyes of a dove;

Dai mi, Bozhe, ochi golubovi;

Give me, God, [the] wings of a falcon,

Dai mi, Bozhe, kriltsa sokolovi,

Give me, God, [the] wings of a falcon.

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<sup>66</sup> Transliteration and translation of the words obtained from [https://en.wikipedia.org/wiki/Malka\\_Moma](https://en.wikipedia.org/wiki/Malka_Moma) and edited by Dr. Irene Markoff

Dai mi, Bozhe, kriltsa sokolovi,  
So I may fly beyond the white Danube,  
Da si forknam otvuhd beli Dunav,  
So I may fly beyond the white Danube,  
Da si forknam otvuhd beli Dunav,  
And find a boy who is suitable for me.  
Da si naida momche spored mene.

The Lord heard her.  
Chu ya Gospod.  
Gave her [the] eyes of a dove,  
Stori ochi golubovi,  
And [the] wings of a falcon,  
I kriltsa sokolovi,

So, he gave her [the] wings of a falcon  
Ta i dade kriltsa sokolovi  
And she found a boy who was perfect for her,  
Ta si naide momche spored neya,  
And she found a boy who was perfect for her,  
Ta si naide momche spored neya,  
God.  
Bozhe.

In the exhibit, this room includes seven paintings in a range of styles: figurative, abstract, and impressionistic. Looking at this room, a few things catch the eye, such as bright colours, vibrancy, and the warmth of the colours in most of the paintings.





Fig 41: Marija Stefanovic



Fig 42: Lisa Carney



Fig 43: Kaoru Shibuta



Fig 44: Deanna Gisborne



Fig 45: Borg de Nobel



Fig 46: Majid farjadmand



Fig 47: Ernest Larbi Budu



### *Power of the voice*

An upward gesture and movement is seen in the paintings of Mara (Fig. 41), Majid (Fig. 46), Kaoru (Fig. 43), and Borg (Fig. 45), a feeling of rising toward a higher place. I suspect that the ascending movement of the first melodic phrase in each stanza inspired the upward movements in these paintings. If so, this observation opens up a fascinating window into the ways our body subconsciously acts as a catalyst for perception. Another manifestation of this embodied perception is that all of the artists referred to the female soloist's voice as the most impactful and the point of major decision-making. This might be traced to our physical connection to the human voice, as the majority of us are capable of singing. Both Lisa (Fig. 42) and Majid (Fig. 46) mentioned that the vocal quality and technique drew them to the piece. Similarly, Mara found the piece "very emotional and deep," emphasizing that her feelings stemmed mostly from the voice and the vocal choir, and less so from the words. She stated that knowing where the song was from played an important role in her perception. "Malka Moma" is a song of joy; however, being of Balkan heritage, Mara indicated that she immediately associated all Balkan songs with sadness because of the tragic history of the region and the way that songs reflect that history.

### *Duality*

Many of the artists iterated an interesting point concerning the duality they perceived in the emotional content of the song. As they expressed it, the voice and the melody simultaneously represented both strength and vulnerability. Ernest (Fig. 47) stated that although the piece put him in a sad mood, the song proposed a feeling of hope in the future. Even though Mara's (Fig. 41) impression of the song was that it was "very strong," she revealed that it made her feel power

and limitation at the same time. For her the vocal quality of the singer suggested a woman who is fragile yet resilient. She also stated that what we perceive in music is mainly derived from the melody and mostly emerges on a subconscious level; thus, we are not aware how the melody affects us so deeply. For Deanna (Fig. 44), there was “a lot of dark emotion, but also this really vibrant life-giving kind of great emotion.” That was how she organized her painting: on one side you find a dark space, and on the other side there is a light space. She explained that the song evoked a feeling of “keeping hope in dark times or after having gone through turmoil and generally people coming together to keep that hope going.” To Deanna, the soloist’s voice sounds strong and vulnerable. She added that the person in her painting is the soloist in this song, and the flowers are the choir accompanying her. She chose to paint flowers because they are connected to the earth, and the rise and fall of the voices are visualized as the cascade of flowers. She found the piece to be feminine, so her choices for the subject were mainly a representation of that femininity. Her first impressions of the piece were “synergy, light shining through pure essence, hopeful, very feminine, undulating, strong, vulnerable duality, yearning universally.”

For Borg (Fig. 45), the song evoked images of innocence, fresh and young, as well as sad feelings. She explained that as a child she used to travel and spend a lot of time outside and the song reminded her of a lot of love, summer, flowers, and a homey feeling, and then on the other hand, it also brought sad feelings of the end of summer when you have to say goodbye to something and the fact that they were growing and those times were flying away. The more she listened to the music, the more deeply she connected with it. She added that the song always made her cry.

### *Red Voice*

As a synesthete, Kaoru (Fig. 43) associated the vocals with red. For him, the lines' movements represented the contour of the vocal melody and the choir. He explained that it took him a lot of time to pick the right red as it was not simply a red colour. He referred to Mark Rothko, who believed red had a lot of movement in it but on the outside it just looked red. Kaoru explained that he would typically listen to a song over and over and immerse himself in one part of the song. It is worth noting that he does not solely rely on his synaesthesia. According to him, painting only on the basis of synaesthesia is boring. In order to add interest and novelty to his paintings, he also draws inspiration from his life and research experiences. He also stated that he found it difficult to capture the whole piece of music in one painting. That's why he painted the component that interested him the most, which in this case was the voice.

### *Spirituality*

The other interesting element that I observed was the artists' perceived feeling of spirituality and a larger force of creation in this song. Majid (Fig. 46) pointed out that this larger life force led him to paint Adam and Eve, which was technically challenging for him to execute as it differed from his previous works. The concept of Adam and Eve, and the way he visualized it, stemmed from his past experiences as well as from books he had read. He added that his reactions were mostly emotional. Thus, he argued that had he had more technical knowledge of music, he would have possibly created a different painting. Deanna (Fig. 44) also mentioned this life-giving force and creation. According to her, in her painting a spiderweb is a symbol of creation and the person lying near the spiderweb is "protecting this creation, by protecting the

spiders.” The song sounded religious to Mara (Fig. 41) in the sense of a "closeness to something that's spiritual and higher." Given the presence of a choir in this song and its potential resemblance to choral music in Christianity, it is intriguing to witness that only three out of nine artists found the piece spiritual in some way. Since music perception is highly contingent on familiarity, I wonder what musical elements contributed to these artists' perception of spirituality. The soloist's voice could perhaps be referred to as an “angelic voice” due to its remarkable beauty, wherefore associating the epitome of aesthetic pleasure and experience with something spiritual or religious might not be that surprising. Perhaps we have the same emotional experience in religious and spiritual encounters as in aesthetic encounters.

### *Colours*

The third element that I found striking in this series was the choice of colours: red, orange, and yellow. In regards to decisions around colours, Lisa (Fig. 42) found the piece “feminine, beautiful, and delicate” and chose to use more transparent effects and fewer colours. Elaborating on how she picked her colours, she said, “I didn't want to go pink, because it wasn't that feminine. I was drawn to the coral colour and there was somewhat of a nice synergy to the music. She selected orange to add vibrancy, leaving the whole composition “airy and light like the song.” According to her, music and colour, among many other things, penetrate us, leaving us feeling something inside because of the energy inside us: “we are living things and the external world bounces off our energy and impacts us.” Deanna (Fig. 44) mentioned that the dark red colours in the background presented the dark emotional side of the song. It gradually transforms to the yellow on the right side to present the light and hope in the piece. She believed that she associated yellow with light, and it was the first colour she imagined when she first listened

to the piece. On another note, a bouquet of red, white, and pink flowers can be seen in Borg's (Fig. 45) painting. Patches of red and white can also be seen in Ernest's (Fig. 47) painting. With the exception of Majid's (Fig. 46) painting, most of the paintings in this room contain bright red, bright yellow, and bright blue. These colours seemingly represent the feelings that the song evokes, as discussed earlier in this section.

### *Flowers and Faces*

The fourth element is the presence of flowers in three of the paintings (Mara [Fig. 41], Borg [Fig. 45], and Deanna's [Fig. 44]). It is probably the association of flowers with femininity and beauty that is prevalent across many different cultures. Borg mentioned that there are domestic elements in her paintings like the hanging rope and the bouquet of flowers, as she thought of her childhood memories.

Among the artists, Mara is the only one who understood the language of the song, and only Majid (Fig. 46) looked up the translation. The song talks about the eyes of a dove and the wings of a falcon. The title of the piece translates as "A Young Girl." One can see the elements in Mara's paintings as direct visual representations of the words, which she herself pointed out. Deanna stated that words impose "subject matter and visuals" to the listener, whereas instrumental music allows for more interpretation on the listeners' end: "[I]t definitely does offer a channel for you to think of your own visuals." Ernest (Fig. 47) commented that he did not understand the meaning of the words but he was influenced by the rise and fall and the echo of the vocals. He stated: "I decided to paint faces but after listening to the music, I felt like capturing the rise and fall of the music in my painting. So the movement of the brushstrokes was attributed to the movement of the music." Like in Majid's (Fig. 46) work, there are two faces in Ernest's

painting, one darker and the other lighter. Even looking at the eyes of these somewhat cubist faces, one eye is darker and bolder than the other, as if one is the echo of the other, or perhaps each one is representing a distinct feeling: hope and sadness. These dark-versus-light elements are likely aligned with the perceived duality by other artists mentioned earlier in this section.

#### 7. **"Elegy for Viola" by Peter Cavallo - 2019**

This piece is in G minor. The melody is held by the viola while the piano accompanies it. The genre is contemporary classical instrumental, in which assigning the main melody to a viola is not common practice. The melody of the viola turns into a heart-wrenching cry in the higher registers and the tone is masterfully created by the virtuosity of the performer. This piece resembles a Romantic-era melodic piece. There is a form of bittersweet and discrete sadness that encourages you to listen repeatedly. "Elegy for Viola" has the capability to take you on a visual journey, since the melodies are profoundly expressive and the tone of the piano, which resembles a felted<sup>67</sup> piano, is relaxing and soothing, as if you have warm and comfortable liquid music pouring over you. There is a pleasant sadness in this piece, one that does not make you depressed. As far as the therapeutic use of sadness in music goes, this piece might help people relax and contemplate the deeper meanings in life. The rhythmic structure of the piece is simple, consistent, and predictable and the form is very simple as well. The melody gradually builds, hitting a climax in the middle of the piece with the higher notes of the viola, and gradually travelling back down to the initial melody. This smooth melodic movement and contour is remarkable. In the exhibit, there are nine works in this room, including a black and white photograph, two ink on paper drawings, and five paintings.

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<sup>67</sup> "Felt or felted piano" refers to a piano where an additional layer of felt is added between the hammers and the strings, which leads to a warmer, more delicate tone.

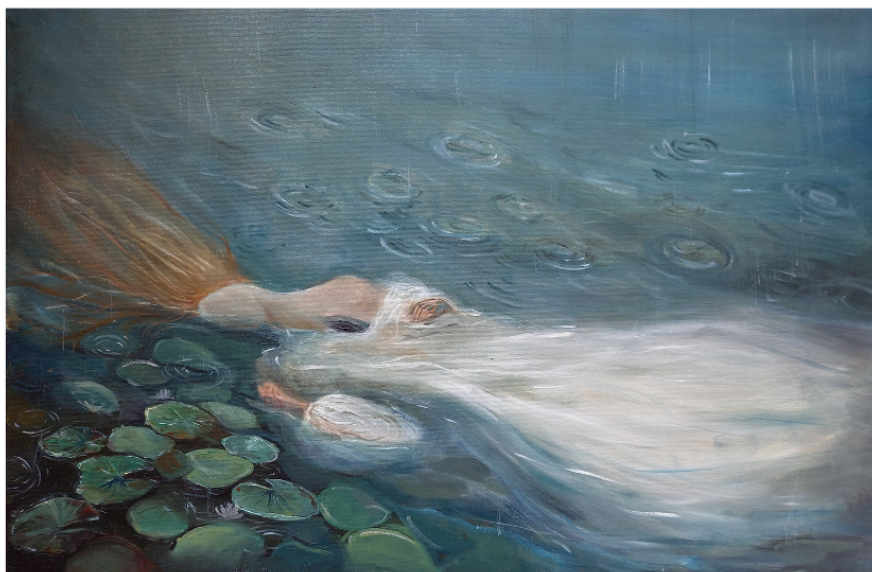


Fig 52: Marija Stefanovic



Fig 53: Larissa Uvarova

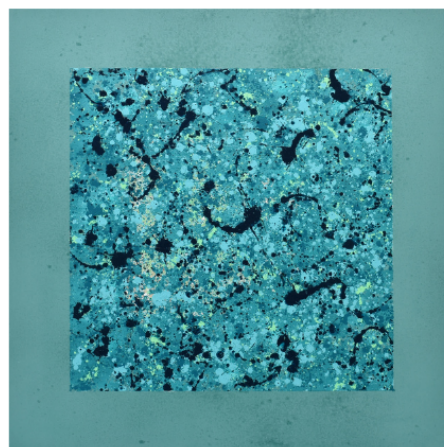


Fig 54: Lisa Carney



Fig 55: Saba Arabshahi



Fig 56: Jazmin Gareau





Fig 48: Ernest Larbi Budu

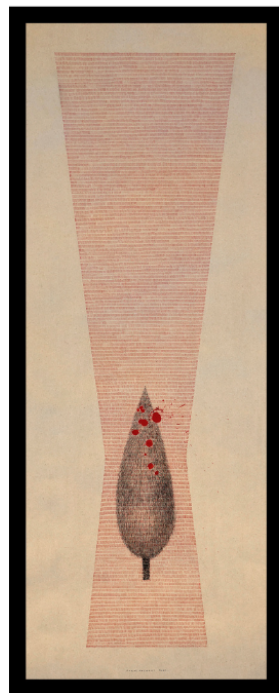


Fig 49: Sogol Kashani

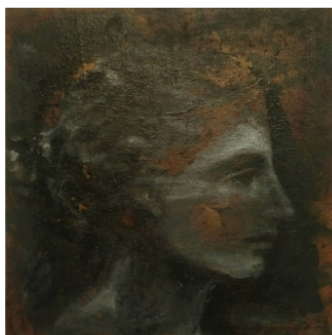


Fig 50: Amin Tavakol



Fig 51: Joubreen Mireskandari



### *Sorrow*

All of the artists except Larissa (Fig. 53) pointed to the music's sadness and emotional quality. Saba (Fig. 55) emphasized that this piece reminded her of her late grandfather, and she named her work "Elegy for Grandpa." Lisa mentioned that there was something heavy in the piece, like a heartache. She felt blocked when she first started painting, an experience she found puzzling. She added that the song was beautiful but it left her confused. She picked an in-between colour to depict her emotions: a colour that is neither green nor blue. It was the colour of a bed of water that was almost green, not because it was dirty but because there was a storm in the atmosphere around it, she explained. Sogol (Fig. 49) stated that the sadness of the song struck her. When she finished her painting, she noticed that the colour of the paper she painted on was a reminder of the drought in Iran, a phenomenon she was very concerned with. She mentioned that the colour selection was subconscious. Her painting demonstrates a lonely cypress splashed with a blob of red ink. As mentioned earlier, this cypress tree reflects her reflections around social issues and Iranian culture at large.

Both Jazmin (Fig. 56) and Mara (Fig. 52) described the musical piece as "soft and sad." Mara stated that she cried when she first heard the piece:

[I]t somehow 'unlocked' my deepest sorrow....The soft piano sound at the opening (and later in the background of the viola melody) instantly gives me a sensation of light rain. When I close my eyes, I see a dream-like scene. It is dusk, not daylight nor night, something in between. I see dark, misty blues, and grays. Raindrops, hazy, very sad atmosphere. Feels like a painful memory of a lost loved one, a young and innocent one. The viola melody is without a doubt very sad and melancholic. In my mind, it translates to a vision of a young lifeless girl floating on the dark waters. She is not necessarily physically dead, she can be the one who grieves and is emotionally broken. She can represent both. Her hair and her dress are floating softly, she is slowly drifting away, vanishing.

Jazmin also recognized a gut or “heart pull” in the song as well as a softness related to the love of something:

[T]he love felt very feminine and soft and romantic. Also kind of youthful as well as comfortable. But there was some friction within the opposition, so that felt very soft, but also very solemn, and there was some darkness that I was picking up on and I saw pale, cool tones, still a very pale, cool pink to start. And then some of the more layered strings became a little bit whimsical and guided towards movement and flutter.

In contrast, Larissa (Fig. 53) found the piece to be very calm. This piece differed from the other piece for her. It made her turn inside and created a calmness which she visualized with light blue sky and floating white clouds. As with the other painting, she utilized the same technique of applying many layers of colours.

### *Female Figure*

An intriguing element about this series is the presence of female figures in the works of Amin (Fig. 50), Jouben (Fig. 51), Mara (Fig. 52), and Ernest (Fig. 48). Mara pointed out that the sadness in the music reminded her of Ophelia: “[t]he more I listen to the music, the more I get an Ophelia-like scene in my mind, so I place my broken floating girl in a dark water lily pond. The big, dark hole in her chest is probably the visualization of the strong pain I felt.” In Shakespeare’s *Hamlet*, Ophelia drowns in madness. Mara’s (Fig. 52) female figure is also drowning in the water lily pond. Jazmin indicated that she visualized “a young woman coming of age, and the lamentation was towards, like, childhood or, like, a childlike state.” Amin’s (Fig. 50) painting presents a profile of a female figure who is almost lifeless. Looking straight ahead, she shows no expression. Brown stains cover her visible cheek and the top of her hair. The figure appears to be a memory of a figure from the 17<sup>th</sup> or 18<sup>th</sup> century in Europe. Jouben’s (Fig.

51) figure is the naked mannequin again, staring at what once was the great empire of Persia. She is half-covering herself with her veil, but the whole back of her body is visible to us. Another bold picture, it is something of a critique of the current situation.

### *Visceral Reaction*

The embodied emotions in this room were more prominent than in the other rooms according to the artists' self-analysis. Saba (Fig. 55) indicated that the viola's fading out and the piano's intensity gave her the textures and distinct brushstrokes. "The shadings, dark and light colours, corresponded with the details of the pen strokes and the emotional texture of the piece. The lines corresponded with the notes in the music." She emphasized that the intertwining of the instruments and her emotions culminated in the drawing and its details. Jazmin (Fig. 56) explained that she painted very thin layers and subsequently wrung out the canvas cloth and dripped colour on it. She added that the constriction and aggression she felt in the piece were transferred into her physical handling of the painting.

Relatedly, Mara (Fig. 52) noticed that she would move her head in slow motion in sync with the slow rhythm of the piece, something that she was consciously trying to capture in the painting as well: soft, gentle and thoughtful movements, and no straight lines or edges.

Ernest (Fig. 48) expressed the resemblance of his brushstrokes to a slow dance to the musical piece. "[A]s I listened to the music while painting, I felt like the music [wa]s controlling my hand, holding the brush and influencing the movement of my brushstrokes."

## Chapter Four

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### Music, Visual Art, and Mood Experiment

This chapter will explain the results of the PANAS questionnaire collected pre- and post-exhibition as a means to measure any changes in the mood of the audience after their visit. The results are in process to be published in collaboration with Geneva Mariotti of York University, and Kody Kennedy, a PhD candidate in pharmacology at the University of Toronto who ran the statistical tests on the data and provided the analysis that I am using in this section.

The purpose of this study was to investigate whether a virtual arts platform would improve the mood of attendees during the COVID pandemic. The primary hypothesis was that negative affective and positive affective scores would decrease and increase respectively following attendance at the virtual art exhibit. The secondary hypothesis was that the addition of music to the art exhibit would elicit a greater decrease in negative emotion and a greater increase in positive emotion. Lastly, in addition to music, I also hypothesized that age and gender may moderate how a virtual art exhibition changes the mood of attendees; however, we did not hypothesize a direction.

Overall composite affective emotion scores were calculated for positive and negative affective mood from the PANAS in English, French, and Farsi<sup>68</sup> by calculating the average from 10 sub-scales. The composite positive affective emotion score was calculated from the following

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<sup>68</sup> I used a free version of PANAS in Farsi which was translated anonymously. However, I came across a validated version of PANAS (Omid Shokri, Ahmad Goodarzi, and Masoud Sharifi. "Testing For Factorial Invariance Of The Farsi Version Of The Positive And Negative Affect Schedule Across Sexes," 2014) in Farsi after the experiment was completed. The version I used is identical to the validated version in the translations of the words, but there are two questions with swapped translations. Nevertheless, since the separate sum of positive and negative affects determines the overall score, the swapping of the words do not create discrepancies in the results.

sub-scales: Question 1, Question 3, Question 5, Question 9, Question 10, Question 12, Question 14, Question 16, Question 17, and Question 19. The composite negative affective emotion score was calculated from the following sub-scales: Question 2, Question 4, Question 6, Question 7, Question 8, Question 11, Question 13, Question 15, Question 18, and Question 20. If participants were missing more than two sub-scale responses from the respective composite score, the individual was dropped from the analyses.

For the primary hypothesis linear mixed effects models (LME) with mood (i.e., composite positive affective emotion score), with i) fixed effects of age, gender, music, and time (i.e., before vs. after the virtual exhibit); ii) random effects of intercept and slope of time by subject iii) a first order autoregressive covariance matrix (i.e., corAR1) between time points. For the secondary hypothesis investigating moderators of the effect that attending a virtual art exhibit has on mood an additional fixed effect of the interaction between time with either age, gender, or music was included (equation:  $\text{Mood} \sim \text{Age} + \text{Gender} + \text{Time} + \text{Group} + (\sim 1 + \text{Time} | \text{Subj})$ , correlation = corAR1). Additional exploratory LME analyses for each sub-category within each composite affective score were conducted. To correct for multiple comparisons a false discovery rate (FDR) using the two-stage linear step-up procedure by Benjamini, Krieger and Yekutieli (2006) was applied in a family-wise basis within the i) primary hypothesis (i.e., correcting for testing the composite positive and negative score); ii) secondary hypothesis; and iii) exploratory hypothesis (i.e., correcting for 10 sub-categories with each composite score). All statistical analyses were conducted using R 4.0.5. Unstandardized beta values were reported as measures of effect sizes for all findings.

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## Results

### *Participants*

Participants ( $n = 160$ ) initially completed a pre-experience survey consisting of basic demographic information surrounding participants' gender, age category, and language choice for completing surveys. Participants were randomly assigned into an experimental group ( $n = 80$ ) or a control group, with significantly more individuals selecting the English version ( $n = 132$ ) than the Farsi ( $n = 24$ ) or French ( $n = 4$ ) versions ( $X^2(4) = 61.17$ ,  $p < 0.001$ ). Following the immersive art experience, participants ( $n = 60$ , experimental = 33) answered the post-experience survey. Participant attrition between pre- and post- survey varied by age, gender, and language (see Table 1). While considerable attrition was observed from pre- to post-experience survey, no significant differences were found in relation to recorded demographic variables between those who completed the pre-survey and those who completed the post-survey, regarding the sample's gender ( $\chi^2(4) = 2.39$ ,  $p = 0.66$ ), age categories ( $\chi^2(4) = 4.56$ ,  $p = 0.34$ ), or choice of language ( $\chi^2(4) = 0.65$ ,  $p = 0.96$ ).

## 1. Demographic Characteristics and Mood

The association of age and sex with mood questionnaire scores are presented in Table 2. Older participants had significantly lower composite scores of negative affective emotion ( $b = -0.38$ ,  $p \text{ FDR} = 0.002$ ) and its sub-scale questions: Question 2 ( $b = -0.47$ ,  $p \text{ FDR} = 0.003$ ), Question 4 ( $b = -0.33$ ,  $p \text{ FDR} = 0.04$ ), Question 6 ( $b = -0.52$ ,  $p \text{ FDR} = 0.0004$ ), Question 13 ( $b = -0.31$ ,  $p \text{ FDR} = 0.02$ ), Question 15 ( $b = -0.45$ ,  $p \text{ FDR} = 0.005$ ), and Question 20 ( $b = -0.31$ ,  $p \text{ FDR} = 0.03$ ). Additionally, while age was not significantly associated with composite positive affective emotion ( $b = 0.10$ ,  $p \text{ FDR} = 0.20$ ), older participants had higher positive affective emotion in the sub-scales: Question 12 ( $b = 0.40$ ,  $p \text{ FDR} = 0.03$ ) and Question 17 ( $b = 0.33$ ,  $p \text{ FDR} = 0.03$ ). Male participants had a significantly lower composite score of positive affective emotion ( $b = -0.22$ ,  $p \text{ FDR} = 0.04$ ), and a higher composite score of negative affective emotion ( $b = 0.26$ ,  $p \text{ FDR} = 0.02$ ) and its sub-scale questions: Question 7 ( $b = 0.35$ ,  $p \text{ FDR} = 0.04$ ) and Question 8 ( $b = 0.44$ ,  $p \text{ FDR} = 0.002$ ).

*Table 1. Demographic Information for Participants Pre- and Post- Immersive Experience*

Time-Point	Group	Gender	Language	Age
Pre-experience	Experimental (n = 80)	Female = 50 Male = 28 Other = 1 Undisclosed = 1	EN = 68 FR = 3 FA = 9	<25 = 6 25-50 = 48 >50 = 26
	Control (n = 80)	Female = 49 Male = 28 Other = 2 Undisclosed = 1	EN = 64 FR = 1 FA = 15	<25 = 4 25-50 = 45 >50 = 31
Post-experience	Experimental (n = 33)	Female = 18 Male = 15	EN = 27 FR = 1 FA = 5	<25 = 2 25-50 = 14 >50 = 17
	Control (n = 27)	Female = 14 Male = 12 Other = 1	EN = 21 FR = 0 FA = 6	<25 = 2 25-50 = 13 >50 = 12

Table 2. Demographic Characteristics and Mood

Measure	Mean, $\pm$ SD		Predictors								
	Mean Score Pre	Mean Score Post	Time			Age			Sex		
	n=159	n=58	b	p	pFDR	b	p	pFDR	b	p	pFDR
Positive	3.32 $\pm$ 0.84	3.54 $\pm$ 0.98	0.17	0.03	<b>0.03</b>	0.10	0.38	0.20	-0.22	0.08	<b>0.04</b>
Negative	1.72 $\pm$ 0.79	1.43 $\pm$ 0.66	-0.19	0.01	<b>0.02</b>	-0.31	0.00	<b>0.002</b>	0.26	0.02	<b>0.02</b>
Interested	3.92 $\pm$ 1.04	3.83 $\pm$ 1.19	-0.08	0.50	0.45	0.06	0.66	0.53	-0.26	0.10	0.20
Distressed	1.94 $\pm$ 1.1	1.55 $\pm$ 0.9	-0.28	0.02	0.06	-0.47	0.00	<b>0.003</b>	0.31	0.04	0.11
Excited	3.15 $\pm$ 1.15	3.26 $\pm$ 1.22	0.12	0.34	0.34	-0.12	0.43	0.39	-0.16	0.35	0.39
Upset	1.77 $\pm$ 1.14	1.52 $\pm$ 0.98	-0.18	0.16	0.25	-0.33	0.02	<b>0.04</b>	0.14	0.38	0.40
Strong	3.04 $\pm$ 1.14	3.17 $\pm$ 1.29	0.06	0.58	0.49	0.14	0.37	0.36	-0.30	0.08	0.19
Guilty	1.59 $\pm$ 0.96	1.33 $\pm$ 0.89	-0.10	0.34	0.34	-0.52	0.00	<b>0.0004</b>	0.30	0.02	0.10
Scared	1.59 $\pm$ 0.92	1.29 $\pm$ 0.65	-0.24	0.00	<b>0.03</b>	-0.19	0.07	0.10	0.35	0.00	<b>0.04</b>
Hostile	1.43 $\pm$ 0.82	1.26 $\pm$ 0.66	-0.11	0.19	0.26	-0.13	0.21	0.24	0.44	0.00	<b>0.002</b>
Enthusiastic	3.37 $\pm$ 1.11	3.41 $\pm$ 1.2	0.07	0.50	0.45	0.00	0.99	0.67	-0.18	0.29	0.34
Proud	3.11 $\pm$ 1.31	3.47 $\pm$ 1.52	0.43	0.01	<b>0.03</b>	-0.07	0.71	0.54	-0.28	0.15	0.22
Irritable	1.92 $\pm$ 1.15	1.57 $\pm$ 0.86	-0.25	0.02	0.06	-0.16	0.28	0.29	0.07	0.67	0.64
Alert	3.18 $\pm$ 1.21	3.53 $\pm$ 1.25	0.13	0.33	0.34	0.40	0.01	<b>0.03</b>	-0.07	0.68	0.64
Ashamed	1.47 $\pm$ 0.88	1.24 $\pm$ 0.6	-0.10	0.07	0.15	-0.31	0.00	<b>0.02</b>	0.30	0.01	0.08
Inspired	3.34 $\pm$ 1.22	3.84 $\pm$ 1.31	0.47	0.00	<b>0.03</b>	0.08	0.64	0.53	-0.35	0.05	0.14
Nervous	1.93 $\pm$ 1.03	1.59 $\pm$ 1.03	-0.25	0.03	0.08	-0.45	0.00	<b>0.005</b>	0.22	0.14	0.21
Determined	3.29 $\pm$ 1.17	3.6 $\pm$ 1.32	0.21	0.14	0.23	0.21	0.18	0.23	-0.28	0.10	0.20
Attentive	3.55 $\pm$ 0.99	3.86 $\pm$ 1.13	0.15	0.22	0.28	0.33	0.01	<b>0.03</b>	-0.16	0.27	0.34
Jittery	1.91 $\pm$ 1.06	1.53 $\pm$ 0.96	-0.27	0.01	<b>0.04</b>	-0.27	0.06	0.09	0.18	0.24	0.33
Active	3.24 $\pm$ 1.05	3.41 $\pm$ 1.06	0.18	0.08	0.15	0.01	0.94	0.67	-0.25	0.11	0.20
Afraid	1.60 $\pm$ 0.99	1.41 $\pm$ 0.92	-0.14	0.27	0.33	-0.32	0.01	<b>0.03</b>	0.31	0.03	0.10

SD = standard deviation; b = unstandardized beta estimate; \* = significant after correction for multiple comparisons.

Table 3. Moderators of the Virtual Art Exhibition on Mood

Measure	Moderators of Response								
	Group			Age			Sex		
	b	p	p_FDR	b	p	p_FDR	b	p	p_FDR
Positive	-0.11	0.46	0.82	-0.29	0.02	<b>0.02</b>	-0.06	0.71	0.75
Negative	-0.04	0.78	0.82	0.29	0.01	<b>0.02</b>	0.23	0.09	0.20
Interested	-0.44	0.07	0.93	-0.28	0.17	0.27	0.01	0.98	>0.99
Distressed	-0.22	0.34	0.93	0.31	0.12	0.24	0.20	0.40	0.69
Excited	-0.41	0.10	0.93	0.16	0.46	0.46	0.45	0.08	0.60
Upset	-0.19	0.46	0.93	0.28	0.19	0.28	0.30	0.24	0.69
Strong	0.23	0.31	0.93	-0.14	0.47	0.46	-0.10	0.65	0.98
Guilty	0.13	0.51	0.93	0.31	0.07	0.24	0.22	0.27	0.69
Scared	0.01	0.93	>0.99	0.20	0.14	0.26	0.01	0.93	>0.99
Hostile	0.09	0.58	0.93	0.42	0.00	<b>0.04</b>	0.02	0.89	>0.99
Enthusiastic	-0.14	0.54	0.93	-0.15	0.43	0.46	0.00	0.99	>0.99
Proud	0.09	0.77	>0.99	-0.09	0.73	0.69	-0.08	0.78	>0.99
Irritable	0.17	0.43	0.93	0.49	0.01	<b>0.04</b>	0.24	0.27	0.69
Alert	-0.26	0.33	0.93	-0.34	0.12	0.24	-0.23	0.38	0.69
Ashamed	0.04	0.70	0.98	0.00	0.98	0.88	0.12	0.29	0.69
Inspired	-0.07	0.82	>0.99	-0.67	0.00	<b>0.04</b>	-0.32	0.27	0.69
Nervous	-0.15	0.51	0.93	0.15	0.44	0.46	0.40	0.08	0.60
Determined	0.00	1.00	>0.99	-0.36	0.12	0.24	-0.27	0.33	0.69
Attentive	0.00	1.00	>0.99	-0.35	0.08	0.24	-0.19	0.43	0.69
Jittery	-0.09	0.66	0.98	0.17	0.31	0.43	0.57	0.00	0.08
Active	-0.28	0.16	0.93	-0.14	0.40	0.46	-0.02	0.91	>0.99
Afraid	-0.26	0.30	0.93	0.41	0.05	0.22	0.38	0.13	0.67

SD = standard deviation; b = unstandardized beta estimate; \* = significant after correction for multiple



## 2. Effect of the Virtual Art Exhibition on Mood

The effect of attending a virtual art exhibition (i.e., time) on mood questionnaire scores is presented in Table 1. Following the virtual art exhibition, attendees had a higher composite score of positive affective emotion ( $b=0.17$ ,  $p \text{ FDR} =0.03$ ), and its sub-scale questions: Question 10 ( $b=0.43$ ,  $p \text{ FDR} =0.03$ ) and Question 14 ( $b=0.47$ ,  $p \text{ FDR} =0.03$ ). Additionally, following the virtual art exhibition, attendees had a lower composite score of negative affective emotion ( $b=-0.19$ ,  $p \text{ FDR} =0.02$ ), and its sub-scale questions: Question 7 ( $b=-0.24$ ,  $p \text{ FDR} =0.03$ ) and Question 18 ( $b=-0.27$ ,  $p \text{ FDR} =0.04$ ).

## 3. Moderators of the Virtual Art Exhibition on Mood

The moderating effects of incorporating music into some participants' virtual art exhibit, i.e., age and gender, are presented in Table 3. Age was a significant moderator of the effect that attending a virtual art exhibition has on mood. Younger participants had a greater increase in the composite positive affective score ( $b=-0.29$ ,  $p \text{ FDR} =0.02$ ) and its sub-scale: Question 14 ( $b=-0.67$ ,  $p \text{ FDR} =0.04$ ) than older participants. Younger participants had a greater decrease in the composite negative affective score ( $b=0.29$ ,  $p \text{ FDR} =0.02$ ) and its sub-scale: Question 8 ( $b=0.42$ ,  $p \text{ FDR} =0.04$ ) and Question 11 ( $b=0.49$ ,  $p \text{ FDR} =0.04$ ) than older participants. Neither the incorporation of music alongside the virtual art exhibition or gender were significant moderators of the effect of a virtual art exhibition on mood.

The recognition of mood enhancement for the audience visiting the exhibition warrants a larger-scale study that I hope fosters collaboration opportunities with mental health organizations

such as CAMH, the Baycrest, and The Alzheimer Society to offer this mood-enhancing treatment to their clientele.

## Chapter Five

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### Conclusion and Self-Reflection

Visual artists and musicians are known to seek inspiration from other artistic forms to discover new means of creative expression. They often discover and engage in novel methods of interdisciplinary influence, which is crucial for the arts to thrive and continue to evolve. Visual artists and musicians in particular often engage in expanding their respective aesthetic orientation by drawing from other practices and works. For example, a large number of composers, such as Schoenberg, Cage, and Debussy, were inspired by visual artists and in turn, visual artists such as Kandinsky and Klee were highly focused on translating musical ideas into their paintings. These practices led to the evolution and development of interdisciplinary artistic practices up to the present time. Additionally, interdisciplinary artistic practices can profoundly shape the audience's perception. They contribute to novel ways of seeing, listening, and understanding, and to the engagement of psychological tools to access deeper levels of knowledge of the human mind, emotions, and consciousness.

#### *Now and Future*

According to Michael Thaut, extensive research in music psychology has not been sufficiently applied in practical and “translational” terms for “educational, developmental, or therapeutic purposes” and can become a new field of scholarly investigation.<sup>69</sup> My exploration of the underlying connections between music and visual arts in a multi-modal experiment resulted in my understanding of the impact of visualization on music perception and cognition, and the role

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<sup>69</sup> Michael Thaut, “History and Research,” 902.

of these two art forms together in mood enhancement. I based my work on the discussions by Hallam et al., who argue that:

several researchers have theorized and explored ways in which music perception and cognition appear to involve cross-domain mappings between the auditory of music and features of other domains of human experience [including the visual]. At present, it is not clear how integral these cross-domain mappings might be for our experience of music, and there is immense scope for future exploration.<sup>70</sup>

Accordingly, in this thesis I present a new way of listening to and interpreting music, through the lens of visual imagery and perception. In the VisualEars project, the visual artists created works of art in a creative attempt to visualize music or, in other words, to translate their understanding of the music into a visual picture. What they produced draws on three crucial elements in perception: metaphoric understanding, gestalt, and embodied cognition (sensory feelings). In metaphoric cognition, one uses metaphors to understand the external world. To understand something, one searches for and ultimately finds similarities to an already known concept and draws conclusions. When a red heart is associated with love, it alone is sufficient to convey the concept without the need to use language. In numerous examples from the artists' reactions and works, metaphoric understanding is observed on both conscious and subconscious levels. For example, the song "A Trace of Grace" (Figs. 11-19) is about heartache and sorrow and was visualized in all the paintings by the colour black. Indeed, in order to dissect and properly analyze these associations, we need to conduct more research as perception is a highly challenging topic to study. It can be deeply subjective and complex, and often resists universalizing conclusions.

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<sup>70</sup> Hallam et al., "Where Now?" 908.

The second element that is central to understanding the artists' perception in their visualizations of musical works is gestalt: one understands something as the sum of its parts or as a whole, not by seeking to separately understand each of the pieces of the whole. This means that a musical piece is perceived in a particular way because of the way its parts create a whole. Basically, the whole is meaningful to us because of the way the parts interact with each other to create the whole. As musicians can attest, one can be aware of the details performed by separate instruments in an orchestral work by shifting the focus from one instrument to another. The same concept holds true for visual perception. When we look at a painting of a green tree, the greenness and the treeness create the whole with all their detail. We can narrow our attention to the greenness and treeness separately; however, what makes the green tree understandable to us is the relational combination of the two resulting in the green tree. With the VisualEars project, what is evident in the participating artists' reactions to the music is their “whole” understanding of the pieces. They refer to certain emotions being evoked by the musical piece. Perhaps the role played by a specific instrument or the nature of vocal quality is more prominent than other elements that are part of the auditory experience; nonetheless, all the parts come together to create a certain impact on the audience.

The third crucial element in my discussion, namely the perception of sensory inputs through our bodies, resulted in astounding observations by the participating artists. One example is how certain rhythmic patterns in the music translate subconsciously into the weight and composition of certain lines, as we see in the works of Saba Arabshahi (Figs. 30 and 55), Jazmin Gareau (Fig. 56), Majid Farjadmand's (Fig. 52). This is obviously related to how we move our bodies in response to what we hear, which helps us feel and by extension understand what we

hear in a more profound way. This, in turn, explains our response to fast rhythmical patterns in music, and our urge to move and dance. Sensory input is a major component of our perception.

At first glance, the diversity of colours, styles, and themes observed in the VisualEars artists' work poses the question of whether there are universally perceptible elements in the musical pieces as well as commonalities in how those elements are visualized. Navigating the exhibition from Room One to Room Eight, one could observe numerous common features among the visual works in each room, whether colour palettes, composition, or innate connections between the rhythmic element in the music and the work of art. Although one cannot fully disregard the uniqueness of our individual subjective experiences and reactions to sensory input, there are exhilarating shared features in each room of this project that might illuminate Semir Zeki's notion about common perceptions, discussed in Chapter One<sup>71</sup>. The next step would be to discover the intricacies of the relationship between the musical pieces and the works of art; the scope of this thesis did not allow for deeper explorations. As an example, what is it that lies within "A Trace of Grace" that drew all artists to include black in their artwork? Or what led the artists visualizing "Elegy for Viola" to paint a female figure? Where do the dual feelings of calmness and dynamic movement stem from in "The Puzzle"?

The next set of findings in this research covered the positive impact of the visual art exhibition on the visiting audience's mood. Amidst the increase in mental health problems in all generations and particularly more vulnerable and marginalized populations, exhibitions like this one can offer a glimmer of hope to help with mood enhancement and regulation as alternative and temporary interventions. This virtual exhibition was accessed by a large group of people

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<sup>71</sup> The British neurobiologist Semir Zeki believes that despite subjectivity in arts interpretation, there are commonalities in our interpretations that make it possible for us to collectively discuss and take pleasure in works of art.

through limited promotions on the artist's social media and private invitations. In the midst of major global lockdowns, multiple studies<sup>72</sup> around the world reported an alarming rise in depression, substance abuse, opioid overdoses, and mental health issues, which were believed to be exacerbated by social restrictions and financial difficulties. According to a study by the Canadian Centre on Substance Use and Addiction, “[p]eople with a history of mental health or substance use concerns were disproportionately impacted by stresses related to the COVID-19 pandemic.” In addition, only 22% of the surveyed population who showed symptoms of mental health issues received necessary treatment from March to December 2020.<sup>73</sup> Furthermore, a Dutch longitudinal study revealed that people not afflicted with a mental illness showed a greater increase in symptoms during the COVID-19 pandemic as opposed to those with a mental illness<sup>74</sup>. Since the PANAS results showed significant improvement in the mood of the general population, Visual-Ears may also be an accessible intervention option to address the sub-clinical increase in symptoms due to COVID-19 or for anyone who might benefit from it in general.

In the future, it would be highly beneficial to run the exhibition experiment in a physical space with a targeted and more intensive promotion in order to have a larger pool of visitors. In addition, I would like to propose this project to organizations such as the Alzheimer's society in Toronto, CAMH, and long-term care homes and community settings to offer it to their clientele as an experiment and a potential alternative treatment.

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<sup>72</sup> <https://www.ccsa.ca/mental-health-and-substance-use-during-covid-19> <https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/> <https://www.nejm.org/doi/full/10.1056/nejmp2008017> <https://www.mhe-sme.org/what-we-do/covid-19-and-mental-health/>

<sup>73</sup> <https://www.ccsa.ca/mental-health-and-substance-use-during-covid-19>

<sup>74</sup> Kuan-Yu Pan, et al. “The Mental Health Impact of the COVID-19 Pandemic on People With and Without Depressive, Anxiety, or Obsessive-Compulsive Disorders: A Longitudinal Study of Three Dutch Case-Control Cohorts.” *Lancet*. 8, no. 2 (2021): 121-129, accessed Feb 27, 2021. doi:10.1016/S2215-0366(20)30491-0

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In this section, I present a few themes and concepts that emerged from engaging with the participating artists in the VisualEars project in addition to the initial research questions. I briefly list them below as I find them remarkable points of departure and barriers, respectively, in my current project.

### *Creative Inspiration*

As a musician and researcher, I am well aware of the influence of different artistic practices on each other. Many artists expressed their enthusiasm and gratitude for this project as it brought forward a new creative inspiration for them to engage with. The pandemic and the related isolation resulted in despair for some of the artists, yet this project was a different way of approaching their practice, one that most had not delved into. Consequently, it motivated and encouraged them to stay creative and involved in a stimulating environment, which is a desired circumstance for most artists. It is worth noting that many of the participating artists indicated the positive impact of the project on their mood. I believe the mood-enhancing effects could be traced to them being exposed to a new creative outlet as well as the focused-listening and visualization assignment they were responding to. This can be explored further for the general public, to examine if the activity itself can also positively alter mood.

### *Bodies as Major Points of Perception*

Time and time again, the artists informed me of the role that their bodies played in perceiving the musical pieces and accessing emotions by exploring physical reactions to the music. The artists' insights attest to the intimate relation between our minds and bodies, and how this



focused attention on sonic and visual perception facilitates awareness of the body. Besides meditative practices and physical practices geared toward enhancing this relationship, I believe this practice promoted by my project can become an accessible and easily trainable method to establish a desirable connection between the mind and the body for all individuals. Artists such as Randi and Jazmin were already engaged in some practices that enhance this connection. As an actress, Randi pointed to the “Authentic Movement<sup>75</sup>” practice that she utilized in this project, which helps a person access the emotional domain more easily through movement. Jazmin discussed “somatic resonance”<sup>76</sup> which initially sprouted from her explorations in trauma and how it is stored in the body. She explained that through listening to music or looking at art, some feelings will resonate with you on a physical level. You can tap into these and gain inspiration by focusing on those feelings. Other artists, including Mara (Fig. 52), Johanna (Figs. 3 and 22), Ernest (Fig. 48), Ernesto (Fig. 17), and Saba (Figs. 30 and 55), noted that the intensity of their brushstrokes or the dance of their hand on their medium was directly influenced by the music. This is a topic which I would like to explore more in the future.

### *Voice, Melody, and Rhythm*

In my discussions with the artists, voice, melody, and rhythm were presented as the most significant aspects of the pieces. In pieces with a vocal element like "Oro Santo" and "Malka Moma," nothing seemed to impact the artists as much as the vocal technique and quality. In instrumental pieces with a variety of rhythmic elements, such as "The Puzzle," rhythm seemed to

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<sup>75</sup> Authentic Movement is an improvisatory and free form of movement through which the individual connects the conscious and unconscious in an attempt to create an experience that is separate from the body. “Authentic Movement facilitates a descent into the inner world of the psyche through natural movement.” (Stromsted, 2009: 202).

<sup>76</sup> Somatic resonance or somatic attunement are the visceral feelings a therapist feels which are responses and bodily reactions to the client’s experiences. These physical responses are used by the therapist to guide their own and their client’s internal states and subsequently help the client (Rand, 2002: 30).

overpower the other elements, and in pieces where the melodies were prominent, such as "Elegy for Viola" and "Avminnast," the timbre of the main instrument and the melodic phrases appeared to be the most noticeable and impactful elements. This was an interesting observation that illuminated a great deal about musical taste and perception in the general public.

### *Musical Versus Visual Knowledge*

Generally, musical knowledge did not seem to greatly impact the visual choices. However, the artists with more musical knowledge had more cues in the musical piece to work with. As an example, Alan and Randi, who are professional musicians as well as painters, were closely aware of the instrumentation, textures, rhythmic elements, and phrases in the musical pieces they worked on. On the other hand, visual artists who had more extensive visual training discussed their visual choices in greater detail. This included Deanna, Ernesto, John, and Mara.

### *Perception Manifestation*

I recognized a few commonalities in the artists' visualization techniques. Some visualized the very technical elements that they perceived in the music. For example, some artists solely focused on their emotional reactions, such as Majid, Borg, and John. The other group of artists were the ones who processed the music through their bodies as mentioned earlier, including Jazmin, Randi, Ernest, and Ernesto. And finally there was the group of artists who were more engaged in an intellectual analysis of their emotions and creating links to certain concepts and thoughts through the title of the music and the mood, e.g., Mana, Farnaz, and Karen. Some artists, like Majid and Mara, created works that were different from what they normally created, while others stayed within their usual subject matters, making only minor changes or adding musical flavour, including Sogol, Jouben, Kaoru, and Hamed.

### *Where the Imagery Comes From*

I asked each artist about the way they connected the sonic and visual elements: what their visualization reflected about their music perception. Most artists responded that the musical pieces brought up certain imagery for them and then they visualized it. Often they found the process intuitive and automatic, as if they were not the conscious creators of their piece. Some artists, such as Majid, Larissa, and Hamed, referred to themselves as the vessels for this flow of creativity from the ultimate creator. Many other artists mentioned that they were drawn to certain imagery yet either they did not have the words to explain it or did not know where the decisions came from. For example, Farnaz referred to her education in philosophy and indicated that listening to Western art music and studying Western philosophy had unconsciously impacted her choices in life, including her choices of colours. She believes that these colours and these ideas exist somewhere in her inner world and only come out through music and art, so she might not be fully conscious of her reasons for picking them. She has witnessed how music facilitated the forming and creation of other artworks as well. These examples elaborate on our metaphoric understanding of the world. In my project, this metaphoric understanding emerged as the visualization and translation of musical pieces into another medium, visual in this case, especially because verbal language — our major means of communication — was removed from this translation. This explains how the artists perceived a duality in "Malka Moma," where the vocal quality represented a strong yet delicate element, or how yearning and mourning notions were perceived in "Avminnast." The above are instances of metaphoric understanding, and in Chapter Three I presented more examples as subsection headings for each musical piece.

Many of the artists indicated that this project influenced the way they listened. They stated that they noticed the nuances of the sonic event they were experiencing and consequently enjoyed the music more than before. As a potential direction of this project into the future, I would like to explore this focused-listening and deliberate visualization as a method to create mindful connections to music.

### *Technical Difficulties*

This exhibition was made possible virtually through connecting three different platforms: my personal website as a way to begin the experiment; Qualtrics' online survey tool platform for York University, which held the consent forms and the questionnaires; and the Kunstmatrix platform where the 3D exhibition was offered. Although I made every effort to render the exhibition experience as seamless as possible, I would be wrong to consider it easy to navigate for all. I was informed that some visitors did not read the instructions and encountered issues with multiple musical pieces playing simultaneously. The instructions included a section on navigating the exhibition for best audio results. For example, each room would open in a new tab. The audience members were advised to close the previous tab right after opening a new tab while moving from room to room. There was also no way to go back to a room, so if a visitor accidentally closed their tab, they would have to re-enter the exhibition from the beginning. Additionally, bandwidth issues and internal server interruptions that occurred with Qualtrics and Kunstmatrix during the time the exhibition was live resulted in many visitors not being able to follow the exhibition and finish their visit as designed and expected. Therefore, the result of the mood measurement is most likely more favourable than what is currently shown in the analysis. This research is only the tip of the iceberg, the beginning of what can become an interesting window into some of the

mysteries of musical and visual perception, and their implications for mental health and mood regulation.

### *Building a Community*

Last but not least, this project was successful at building a widespread community of musicians and visual artists in a meaningful way at a time when the pandemic was ravaging people's social connections. I witnessed the wonderful interaction of artists on their respective social platforms encouraging each other and establishing new relationships despite the diversity of geographic locations. This is an affirmation of the role of artistic research in bringing people together through powerful and global endeavours. I hope to continue this journey with the same cohort, who have already expressed their interest in my work, and explore the evolution of this project in the future.

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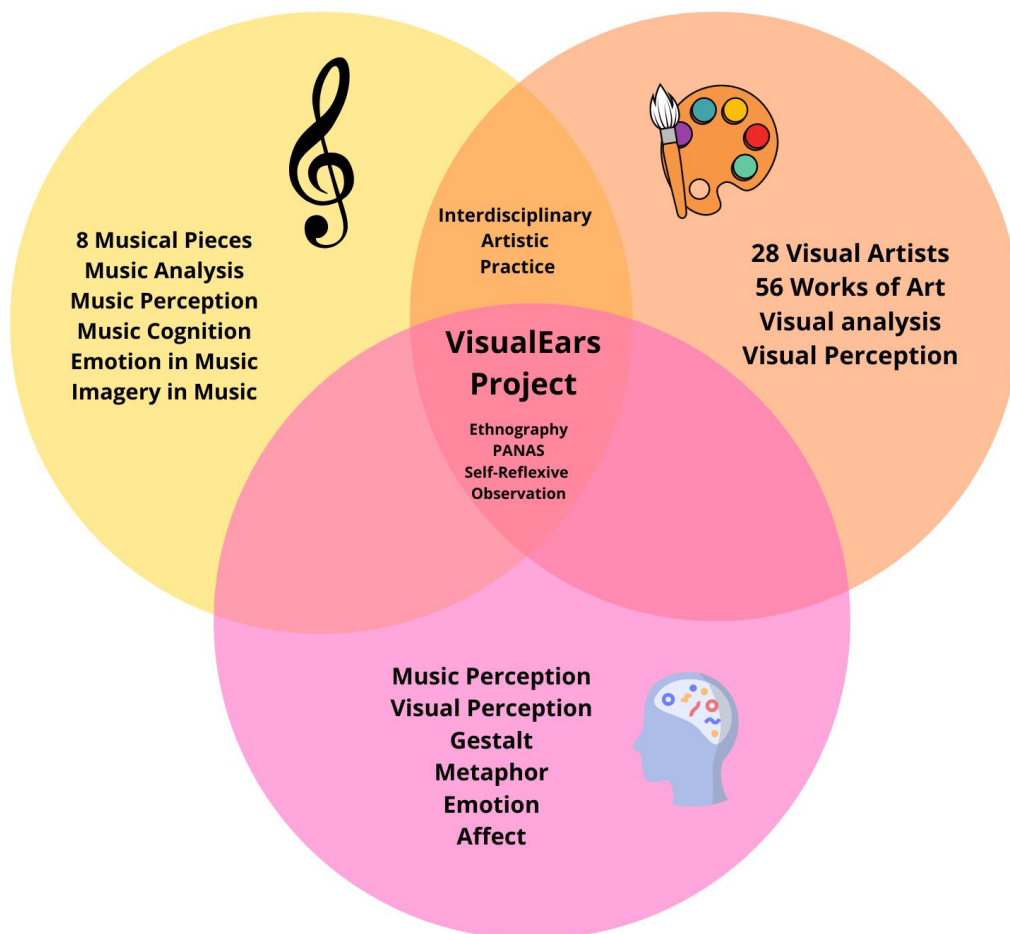
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## Appendix A: Flowchart of Interdisciplinarity: Music, Visual Arts, and Psychology



## Appendix B: Common Feelings and Reactions as per the Artists' Feedback

"Avminnast" by Nils Økland	Longing – Yearning – Memory
"A Trace of Grace" by Michel Godard, Alim Qasimov, Rauf Islamov, and Hüsnü Şenlendirici	Heartache – Remarkable Voice
"The Puzzle" by Dawn Davi	Forward-Moving Rhythm
"étude for Piano in C Sharp minor Op. 2, No 1." by Alexander Scriabin performed by Vladimir Horowitz	Sorrow and Serenity – Stepwise Rhythm
"Oro Santo" by Javier Limón featuring Buika	Intense and Energetic
"A Place for Us" by Brian Weafer	Playful – Togetherness
"Malka Moma Si Se Bogu Moli" by Neli Andreeva and Georgi Genov	Sublime Voice – Vulnerability and Strength
"Elegy for Viola" by Peter Cavallo	Sorrow –Visceral Reaction

I would like to emphasize the significance of this kind of simultaneous viewing of art and listening to music as opposed to watching a film and listening to the soundtrack. The moving image may impose a premeditated narrative upon the viewer with the intention of establishing a distinct conclusion, whereas the static artworks in this exhibition typically stand alone and do not create a narrative beyond their shared characteristic, namely that they are all visualizations of a particular piece. The viewer will then be encouraged and led to seek connections and “analogical juxtapositions.” In this case, the viewer is an active part of this meaning-making and pattern recognition. Conversely, when watching a film, the viewer can be more of a passive passenger in a vehicle on its way to an already planned destination that is unknown to the passenger and reveals itself through the course of the film.

## Appendix C: PANAS Scale

This questionnaire consists of a number of words and phrases that describe different feelings and emotions. Read each item and then choose the appropriate answer in the options next to that item. **Indicate to what extent you feel each of them at the present moment.**

(Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales.

*Journal of personality and social psychology*, 54(6), 1063.)

	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
Interested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distressed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Excited	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Upset	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strong	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Guilty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scared	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hostile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enthusiastic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proud	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Irritable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alert	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ashamed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspired	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nervous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Determined	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attentive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jittery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Active	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Afraid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## **Appendix D: Brief Biography of Participating Artists**

**Alan Daysh:** Musician and landscape painter working around the Isle of Wight and the south of England. He has had several one-man and joint exhibitions, including solo shows at Quay Arts and Dimbola Lodge on the Isle of Wight. He has also had work selected for the Royal Institute of Oil Painters exhibition at the Mall Galleries in London. Some of his work has been made into prints that have sold nationally through the John Lewis chain of department stores, amongst others. He has worked on a commission for Areas of Outstanding Natural Beauty and had work published in one of their books. According to him, “My philosophy of painting is very simple. The subject of all my paintings is the distance. The feeling of looking out across a landscape and experiencing something timeless, something nameless.”

**Amanda Reeves:** Since graduating with honours from Ontario College of Art & Design University in 2005, Reeves has participated in numerous exhibitions at both public art institutions and commercial art galleries. Her work is in the collections of the Bank of Montreal, Royal Bank of Canada, Medcan, Cenovus Energy, EQ Bank, and private collections. Amanda was born in England, educated in Canada, and now lives and works in the San Francisco Bay Area.

**Amin Tavakol:** Iranian contemporary artist. He graduated in painting from Tehran Fine Arts School and received his B.F.A. in sculpture from Tehran University of Art. He is an active member of the Iranian Sculptors' Society. His works have been shown in several exhibitions, including the 6th Biennale of Sculpture in Tehran, and the 7th Biennale of Sculpture at the Museum of Contemporary Art, the 4th annual exhibition of Pressbook, group exhibitions in Shirin Gallery, Iranian Artists Forum, Soo Gallery, and many more.

**Benjamin Tavakol:** Born in 1988, Abadeh, Fars, Iran. Graduated from Tehran Fine Arts School. B.A in sculpture from Tehran University of Art. Member of the Iranian Sculptors' society. He has shown his works in numerous solo and group exhibitions, art fairs, and biennales.

**Borg De Nobel:** Born 1965 in Zeist, Netherlands. Living and working in both The Netherlands and Hungary, Borg is a largely self-taught artist with work exhibited and sold across the globe. She graduated from The Art Students League, New York City, and Gerrit Rietveld Academy, Amsterdam.

**Deanna Gisborne:** A graduate of York University's B.F.A. program with a double major in visual art and psychology. During her time at York, Gisborne became a celebrated member of the visual art department by taking on administrative roles such as gallery monitor at the Art Gallery of York University, and community-oriented roles such as Program Director of the Visual Arts Student Association. She also earned accolades due to her success in studio and



art history courses, such as the art history honorarium, and during her thesis course, she received the Willowdale Group of Artists Award — the highest award offered in the painting stream at York University. Gisborne has held numerous exhibitions, including a duo show with printmaker Ernesto Hidalgo and a solo show held on the York University Visual Arts and Art History online platform during the COVID-19 pandemic.

**Ernest Larbi Budu:** Contemporary Ghanaian artist. After receiving a degree in Art Education, he works as a creative art teacher while exploring his painting ideas and style on canvas. He works on a variety of themes which include abstract concepts, landscapes, flora and fauna, portrait, culture and life struggles in Africa. His unique technique seeks to explore the phenomenon of wild colour effect. Inspired by the simplicity and the complexity of bright colours in nature and their effect on the human soul, his works are full of dramatic and vibrant colours in a way that excites and engages the viewer. He also incorporates Ghanaian cultural symbols and artefacts like the African mask and traditional Adinkra symbols into his paintings to reveal his cultural identity and roots. He often paints portraits of children and women in Africa, revealing their hopes, aspirations, sensations, and the contours of their life struggles emanating from living in the African space. His hope is that people enjoy the beauty and the inspiration of his creation.

**Ernesto (EJ) Hidalgo:** Filipino, Canadian-born printmaker from Toronto, Ontario, Canada, born in 1997 and currently residing in the town of Newmarket, Ontario. In June 2020, he received his B.F.A. in Studio Visual Arts from York University's Specialized Honours Program. In his junior and senior years of undergrad, Ernesto worked as a print media assistant at the university's printmaking studio, enabling his profound interest in print to excel. This momentum amassed him prestigious awards, honorariums, exhibitions, and opportunities within his final years of academia, namely the Jeannie Thib Print Media Award, his collaborative debut show *The State of Not Knowing* with co-artist Deanna Gisborne, and commissions from the university's Faculty of Fine Arts. Ernesto specializes in screenprint, photo-based processes, and bookmaking. By utilizing these methods of print, he contextualizes ideas of phenomenology, existentialism, and philosophy brought forth by the human sensorium, emphasizing the significance of our metaphysical presence and exercised further by the interhuman, mechanical process of printmaking itself.

**Farnaz Yavarianfar:** Graduate in Philosophy and Literature from Itay in 2007. Upon her return to Iran, she started painting in the school of surrealist metaphysics under the guidance of Master Taha Behbahani for 11 years. Her knowledge of philosophy and art concepts and their interconnectedness helped her reach a world beyond materialism, a world full of compassion and humanism, as in the way of Persian dervishes. Farnaz tries to be an ambassador for peace, friendship, and sympathy in this turbulent, strange, and unpredictable world. Her works have been displayed in various exhibitions inside and outside of Iran.

**Hamed Raffi:** Freelance Iranian artist born in 1985 currently based in Stockholm, Sweden. He became interested in visual arts already when he was 7 years old from seeing artworks in galleries and magazines, though by no means could he express himself at that age. His formal education in art started at the age of 14 in Tehran's Sad Abad complex. For years, drawing was the only way to satisfy his eagerness to bring life into forms, and that thirst is still there. Over the past couple of years, he gradually moved toward colour with the choice of soft pastels as his medium, with dazzling colours and yet close to traditional drawing. Over the years, he is trying to find his own style in drawing and painting with pastels and the work is in progress with still life and figures. His recent studies include watercolour and some limited work with oil.

**Jazmin Gareau:** Granddaughter of Karen and Gabrielle, daughter of Sandra, sister to Kia. In service to care, time, snails, and systems of management. Jazmin Gareau is a Canadian-born artist, writer, and researcher, managing the studio practice Into the Folds. This studio's current work lies in examining the intersection between illness and the mechanized body, with emphasis on women's reproductive health experiences. Jazmin attended the Etobicoke School of the Arts, received a Bachelor of Arts from York University, and recently graduated from the Master of Fine Art program at Goldsmiths, University of London. She divides her time between Toronto and London and is closest to self whilst inhabiting the vessel of a snail.

**Johanna Reynolds:** By consciously tuning herself in to the natural world, Johanna Reynolds creates dynamic abstractions using oil and acrylic paint. Reynolds' work is known for elegant, contemplative layers interrupted by moody, gestural bursts of unexpected colour. From series to series, colour palettes intersect at a riotous pace, borrowing elements from plant life, rocks, water, and sky. These elemental forces create sweeping nuances that cause emotional stirrings within the viewer. These non-representational landscapes aim to hint at something familiar yet remain open-ended to allow the viewer's imagination to complete the story. Johanna recently exhibited 12 paintings in Sweden for her first international solo show, titled *Suspension*, with Nordic Stories Contemporary Art. Another professional milestone was Air Canada's acquisition of four large works for their permanent collection. These pieces are installed along the Maple Leaf members lounge at LaGuardia airport in New York. Johanna studied Art History and Studio Arts at Concordia University in Montreal, Canada. She works and lives in her hometown of Toronto with her husband and two children, where her abstract paintings are gaining an impressive local and international following.

**John Avila:** Homemade Toronto-based sci-fi.

**Joubeen Mireskandari:** Born in London in 1979, Joubeen Mireskandari, B.A. in Graphic Design from Science and Culture University in Tehran (2001), began his career as a designer and photographer in 1998. In 2005, he won first prize for the most impressive poster at COW International Design Festival in Ukraine. In 2012 and 2016, two series of his photographs, "Black-

ened” and “The Sacrifice” were presented in solo exhibitions at Dastan Basement Gallery (Tehran, Iran), and in 2014 another series, “Flatland”, was exhibited in Mohsen Gallery (Tehran, Iran). His latest show “View From Outside” was curated by Behzad Hatam and exhibited at Ab/Anbar Gallery 2019 (Tehran, Iran) and at Emrooz Gallery 2020 (Isfahan, Iran). Behzad Hatam, the curator of his last project, introduces him: “He is not the photographer of the beauties of the world or its monstrosities; he is not the photographer of the images, he is the photographer of contents, concepts and the context of images.” He has also participated in many group shows. In collaboration with Sogol Kashani, another artist, Joubeen has curated a number of exhibitions under the name “Sogol and Joubeen Studio.” They produced and directed a music documentary film *Eight to Ten Thirty* in 2016. He lives and works in Tehran, Iran.

**Kaoru Shibuta:** He grew freely in the wilderness of Hokkaido. Being a synesthete, he converts his experiences into paintings based on research on music and natural sounds. He has made presentations at artist-in-residences around the world, including the Barcelona Center for the Arts and Culture Esproneda, the Santa Monica Museum, the Russian National Center for Contemporary Art NCCA, and the Kamoe Art Center Hamamatsu. 14th Arte Laguna Prize Special Award (Arsenal, Venice). Major exhibitions in 2020 include “Little Voices” (Kensington + Chelsea Art Week London), “Virtual Artists Trail” (Sydenham Arts. London), “After Greed Became Form” (White Rectangle Gallery London), “Global Arts Festival” (Elisabeth Jones Art Center, Portland), “Kaze” (BankART Station, Yokohama), etc.

**Karen Gamborg Knudsen:** Danish artist and architect born in Odense, 1978. Her practice is situated around imagery and immediacy, objects, and new spatial landscapes through digital and analog drawing. She is part of the artist duo Gamborg/Magnussen. Gamborg/Magnussen works with large-scale projects, objects, and hyper-objects in search of meaning and beauty. She is the co-founder, curator, and editor of Entreentre.org. Karen Gamborg Knudsen graduated from the Royal Danish Academy of Fine Art, School of Architecture (2005).

**Larissa Uvarova:** Modern Ukrainian artist. The direction of her art is abstraction. She creates her artworks with oil on canvas and sometimes mixed media. She believes that painting is primarily an energy and it should be a source of strength and inspiration for the viewer. The painting is just the guide between the artist’s feelings and the viewer. Larissa takes inspiration from the world around her, filters her observations through her feelings, and then creates a new abstraction. She prefers to create on large formats of canvas. All her paintings are multilayered, regardless of the way they were created: whether ironed with a brush or structured with a palette knife. Each artwork is full of paints, transitions, and shapes. It always contains a lot of energy even when it is a romantic, smooth painting created with a brush. She has been exhibiting her artworks since 2012 in numerous events in Ukraine and Europe.

**Lisa Carney:** Born in Canada in 1970, she is an abstract painter from the Gaspé Peninsula in Quebec. Living and working today in Ste-Anne-Des-Plaines, the artist is a member of several arts organizations, such as the Conseil de la Culture of the Laurentians and the Regroupement des artistes en arts visuels du Québec. Growing up in a family of artists, Lisa Carney has been immersed in creation from a young age. A graduate in visual arts from the University of Quebec in Montreal, she is distinguished by a mastery of different techniques in various mediums. Expressing herself through both pictorial creation and music, she has devoted herself fully to abstract painting for several years. Lisa Carney's artistic research is inspired by her love for our planet. Although she admits to being largely influenced by the landscapes of her childhood, the artist wishes to move away from the conventional landscape and immerse the viewer in an unusual universe. She paints in acrylics with an energizing colour palette and uses the dripping technique, creating a harmony between textures and colours to suggest plant life. Lisa Carney has exhibited extensively in Canada, the United States, and France. Her works are among many private and corporate collections, including the Thérèse-De-Blainville Chamber of Commerce and Industry. Her work has been the subject of numerous publications and books and has received several awards.

**Majid Farjadmand:** Born in 1966 in Tehran, Iran. He studied filmmaking and photography from 2003 to 2008 in the Iranian Youth Cinema Society, but he did not feel fulfilled and satisfied. He started painting in 2009. At first, it was mostly an adventure, but then it became more meaningful and serious in his life. He attended several art classes taught by Ariaseb Dadbeh and Davoud Mousavi to learn figurative drawing and painting. After 12 years of studying this field, as a contemporary artist he wishes to integrate modern and classical art. He would like to picture his thoughts in a more abstract context.

**Mana:** Self-taught artist.

**Marija (Mara) Stefanović:** Visual artist based in Amsterdam, the Netherlands. Mara's artistic practice is an inner journey, exploration, and visual interpretation of her deep, raw emotions and reflections on life. She is inspired by the fragility and impermanence of nature, the beauty of imperfection, and the cycle of life. Her work is often symbolic and metaphoric. Certain plants, animals, and insects are often the subject of her figurative paintings, and they always carry a strong symbolism. She also likes to explore the ideas and aesthetic principles of Eastern philosophy, such as Wabi-Sabi and Kintsugi. Kintsugi – the ancient Japanese tradition of mending broken pottery with gold, which makes the object more precious and stronger than before, is a wonderful metaphor Mara loves to use as a parallel to emotionally and spiritually broken humans, acknowledging the importance of the self-healing process. Her paintings are mostly figurative, influenced by traditional Japanese art, contemporary imaginative realism, surrealism, and old Dutch masters. She prefers simple, almost minimalistic composition and a limited palette. Her favorite

mediums are oil paint and watercolour, and she uses environmentally friendly materials, such as water-mixable oil paint, handmade natural watercolours and inks, and recycled and handmade paper. Born (1981) in Serbia. Since 2016 based in Amsterdam, the Netherlands. Holds B.A. in Italian language and literature. Mother of two.

**Niki Hare:** Self-taught artist born in 1971, Bristol, U.K.

**Randi Helmers:** “Selected highlights of my professional life begin with Fine Arts studies in Norway, Switzerland, Italy and Canada, and graduation as an Associate, with Honours, from the Ontario College of Art (AOCA’83). As a professional actor (*Caravan Farm Theatre, Nightwood Theatre, National Arts Centre English Theatre, Stratford Festival of Canada*), singer (*John Millard and Happy Day, Sweet Session, Stranger Still*), and visual artist for 36 years, I integrate the expressive modalities of theatre, music, movement, improvisation, dreamwork and visual arts in my on-going studio and performance practice, as experienced in the interdisciplinary arts presentation, *The Path Home: An Evening of Celebration Through the Labyrinth in Sound, Song, and Movement*, Gallery 345, Toronto. My visual artworks have been featured at the National Arts Centre, Ottawa, in juried exhibits (*Toronto Inside Art Expo, The Queen West Art Crawl, The Artscape Distillery Outdoor Exhibit*) and most recently in my solo art shows, “Sonnet 60” and “*Collagiality Series 2020-21: Visual Meditations on Distance and Relations*”, at The Peter MacKendrick Community Gallery and Children’s Art Studio, respectively, at Artscape Wychwood Barns, Toronto.

**Richard Ketley:** Born in 1964, he has been an artist since he was at school and held his first solo exhibition while still a student at Hyde Park High School. Richard holds an M.F.A. in Fine Art from the University of the Witwatersrand. Like many South African artists, he started his career selling paintings on a Sunday at Artists in the Sun, before achieving representation by the Sandton Gallery, Johannesburg. After university, he moved to the U.K. and then Uganda where he held his next major exhibition at the National Gallery in Kampala, Uganda. After a twenty-year break, he returned to painting in 2010. Since then he has held exhibitions in South Africa, Nigeria, UAE, Ghana, and Uganda. Some of his most recent work has been shortlisted for the SA Taxi Art Award (2015 and 2016). Today, Richard works principally in charcoal, acrylic, and oil, and seeks to develop images that are drawn from life but that extend the viewer’s imagination. When he is not painting, he runs a consulting business. He commutes between Johannesburg and Dubai and travels widely in both Africa and the Middle East.

**Saba Arabshahi:** Visual artist currently born in 1985, living in Tehran, Iran, and working in her own studio. She obtained her Bachelor of Graphic Design from Azad University, Tehran-Central Branch and her Master of Illustration from Tehran Art University. Her artistic practice is focused on graphic design, illustration (mainly nonfiction), and painting. Her main obsessions are nature & environmental issues. She has exhibited her artworks with the subject of endemic species in

Iran and abroad in different galleries. Besides working on artistic projects, Saba has a background in teaching at Fine Arts School (the oldest & most prominent art school in Iran). She was accredited by the Ministry of Culture and Guidance of Iran for her efforts in education. She also follows music as a side interest in both choir and Dotar performance (the favoured instrument among the Kurds of Khorasan).

**Shannon Pawliw:** Born in 1970, Saskatoon, Canada. She works in painting, sculpture, and site-specific installation. Her work is colourful, immersive, and bold to the point of being cartoonish. Both the painted and 3D work is rooted in organic forms and gesture. Pawliw works in exploratory series that are undertaken with the explicit intent of creating fantasy-based objects built around ideas, practices, and concepts that fascinate her. These ideas and concepts are as diverse as nostalgia, memory, family, loss, and microbes. They tend to involve an immersive (and often obsessive) years-long study of the subject. But ultimately, her work is firmly rooted in optimism and naïveté.

**Sogol Kashani:** Born in 1979 in Tehran, Iran. She is an Iranian contemporary artist who grew up during the war between Iran and Iraq. She began drawing and painting at an early age. Between 1994 and 1998, she studied graphics at the School of Fine Arts. In 2004 she received her B.A. in Fashion and Textile Design from “Science and Culture” University of Tehran. Her paintings are characterized by bodies and figures in relation to socio-political issues, usually executed in a delicate style with pencil on large canvases, and ink drawings in a very raw and rough technical style. Sogol Kashani’s practice consists of various visual art forms, including drawings, photographs, video, and collaborative curatorial projects such as installation art shows, documentation exhibitions, and filmmaking. She lives and works in Tehran.

**Yana Yo:** Born in 1959 in Wimbern, Germany. After an apprenticeship as a bookseller, she studied at the HdK Berlin and graduated as a masters student in 1984. From 1989-2020 she lived and worked in Cologne. Her works have been shown at the Lenbachhaus and Haus der Kunst in Munich, the Museum für Kommunikation Berlin and Frankfurt/M., the Tate Modern, the Kunsthalle Wien, the Lentos Kunstmuseum in Linz, and the Walter Philips Gallery in Banff, Canada, among others. Yana Yo has lived and worked in the Eifel since 2020.

## Appendix E: Table of Artists and Musical Pieces

	Music 1	Music 2	Music 3	Music 4	Music 5	Music 6	Music 7	Music 8
Alan Daysh	O				X			
Amanda Reeves	O	X						
Amin Tavakol	O							X
Benjamin Tavakol	X			O				
Borg de Nobel		X					O	
Deanna Gisborne				O			X	
Ernest Larbi Budu							O	X
Ernesto Hidalgo		X						
Farnaz Yavarianfar	X		O					
Hamed Rafi	X	O						
Jazmin Gareau					X			O
Johanna Reynolds	O		X					
John Avila			O		X			
Joubeen Mireskandari	O							X
Kaoru Shibuta			O				X	
Karen Gamborg Knudsen			O	X				
Larissa Uvarova		X						O
Lisa Carney							O	X
Majid Farjadmand			O				X	
Mana			O			X		
Marija Stefanović							O	X
Niki Hare	O				X			
Randi Helmers	O			X				
Richard Ketley		O	X					
Saba Arabshahi				X				O
Shannon Pawliw		O				X		
Sogol Kashani		X						X
Yana Yo			X	O				

X represents the piece I assigned to each artist.

O represents the piece they selected.

Artists were selected from different countries (Canada = 9, Iran = 9, U.K. = 2, Netherlands = 1, Serbia = 1, Ukraine = 1, Denmark = 1, Germany = 1, Ghana = 1, South Africa = 1, Japan = 1), different education levels (Academic education in arts = 17, Private education = 4, High school art education = 1, self-taught = 6), and different musical backgrounds (No musical training = 11, Beginner or intermediate level = 10, Advanced or self-taught musician = 7)

## Appendix F: WordCloud





## Appendix G: Questions for ethnography

- 1- How would you introduce yourself? What would you like your audience to know about you?
  - 2- How would you describe your art? What do you usually find inspiring for your creative practice?
  - 3- How would you describe your musical background?
  - 4- Do you ever get inspired by music? If so, what type of music?
  - 5- Do you usually listen to music when creating? Why or why not?
  - 6- Why did you choose this piece to work with? Can you describe it in your own words?
  - 7- Describe your creative process and your decisions in detail? Why did you pick this medium and how does it represent this piece?
  - 8- Do you think the above-mentioned elements can be generally applied to other pieces of music? In other words, do you see specific musical features being attributed to certain visual elements?
  - 9- Are you a synesthete? ("**Synesthete**: A person with synesthesia, a condition in which the normally separate senses are not separate. Sight may mingle with sound, taste with touch, etc. The senses are cross-wired. For example, when a digit-colour synesthete sees or just thinks of a number, the number appears with a colour film over it. A given number's colour never changes; it appears every time with the number. Synesthesia can take many forms. A synesthete may sense the taste of chicken as a pointed object. Other synesthetes hear colours. Still others may have several senses cross-wired.")
- <https://www.medicinenet.com/script/main/art.asp?articlekey=14204>)
- 10- How did you find this experience? Would you like to include it in your practice again?
  - 11- Did this experience change your perspective toward music? If so, how?
  - 12- Do you think what we hear can ever be translated into something we can see?
  - 13- Do you think abstract art can convey a universal message?
  14. Do you think the audience would be able to identify the connection between your work and the selected music piece? If so, which elements contribute to that identification?

**Appendix H:** Lars Hertervig's paintings. The National Museum's photo license for the digital images is Creative Commons Attribution License (CC-BY).



Fig. 57. Lars Hertervig, *The Tarn*. 1865. Nasjonalmuseet for kunst, arkitektur og design, The Fine Art Collections



Fig. 58. Lars Hertervig, *Island Borgøya*. 1867. Nasjonalmuseet for kunst, arkitektur og design, The Fine Art Collections



Fig. 59. Lars Hertervig, *Coastal Landscape*. 1855. Nasjonalmuseet for kunst, arkitektur og design, The Fine Art Collection