Lady Dice and the Emerald Oyster Honeycomb:

A New BlipVert and Synaesthetic Interdisciplinarity

by

William Northlich

A thesis submitted in partial fulfillment for the requirements
for the degree of

Doctor of Music

Department of Music

University of Alberta

Abstract

As a composer, I spend hours in my studio creating dense and complex electronic music. Onstage, this music is radically transformed as I become BlipVert, a performative alter-ego which fervently remixes and alters the music, furthermore adding ancillary frenetic physical reactions to the electronic textures. BlipVert's physicality imbues it with conspicuous synaesthetic quality: sound and vision are intimately conjoined in BlipVert performances thereby portraying BlipVert as a compelling construct of visual-music. BlipVert epitomizes my oeuvre, which is ultimately defined by what I refer to as snapshot composition: a collection of contrasting creative ideas which are exhibited as a complex of interconnected parts. My doctoral thesis composition—*Lady Dice and the Emerald Oyster Honeycomb*, a music-drama in five scenes for BlipVert, two percussion batteries, and two sopranos—attempts to expand BlipVert's identity by thoroughly exploring the expressive possibilities of visual-music through various mediums: graphic scoring, interpretive conducting, color-composing, word painting, and electronic technology. Ultimately, *Lady Dice and the Emerald Oyster Honeycomb* represents a profound coalescence of expressive activities which formulate synaesthetic interdisciplinarity: interconnected properties working together which amplify the concept of visual-music and illuminate the essence of snapshot composition as a unique creative practice.

Supplemental material related to this thesis is available at the following links:

1) *Lady Dice and the Emerald Oyster Honeycomb* – Complete Master Score
   https://doi.org/10.7939/r3-g30h-1f58

2) *Lady Dice and the Emerald Oyster Honeycomb* – Audio Files
   https://doi.org/10.7939/r3-0zrm-6706

Acknowledgements

I wish to sincerely thank the following individuals for their support, guidance, encouragement, and friendship throughout the completion of my doctoral degree in composition at the University of Alberta (in no particular order):

My doctoral thesis advisor: Scott Smallwood

My doctoral thesis committee: Scott Smallwood, Mary Ingraham, Michael Frishkopf

My doctoral thesis committee arm's-length and external members: Mark Hannesson and Helen Pridmore

Current and Emeritus Faculty of the University of Alberta Department of Music: Howard Bashaw, David Gramit, Julia Byl, Brian Fauteux, Andriy Talpash, Roger Admiral, William Street, Allison Balcetis, Guillaume Tardif

The University of Alberta Department of Music Graduate Office and Technical Staff: Satoko Nemeto, Kim Arndt, Matthew Walton, Morgan Gautheir, Russell Baker, Patrick Strain

University of Alberta Colleagues and Collaborative Partners: Nico Arnáez, Mark Segger, Yue Deng, Deepak Paramashivan, Morteza Abedinifard, Mehdi Rezania, Donna Dawson

Scholarship Donors: Violet Archer, Beryl Barnes, University of Alberta Music Department

University of Alberta Library Personnel: Lucinda Johnston, Sean Luyk

Table of Contents

List of Figures

List of Figures (cont'd)

"How does music speak thus? by what means, and in which mode" (Bruhn 2000, 35)?

"The concept of emotion is intimately related to changes…Music, too, is about changes" (Juslin and Sloboda 2001, 6).

"Rather than thinking of music as solely an art of the ear and visual arts solely as an art of the eye, we should think of them both as multi-sensory and, in important ways, synaesthetic" (Shaw-Miller 2013, 7).

"BlipVert is Will Redmond as microcosm, cramming all of his diverse talents into a condensed blur of electronics that borrows from everything: jazz, glitch, metal, IDM, funk, classical, and probably at least a few genres that haven't even been named yet" (Last.fm 2010).

Introduction

The above four quotes encapsulate the combination of expressive elements in the five-scene music-drama *Lady Dice and the Emerald Oyster Honeycomb*:[1] improvisation, graphic scoring, Blip-Forms,[2] acoustic and electric instrumentation, eccentric vocalizations, and electronic music. All of these elements are ultimately guided, manipulated, and imbued with affecting emotional power via BlipVert,[3] a pseudonym, or alter-ego, under which I have been creating and performing my own unique style of electronic music since the year 2001.

At its core, BlipVert's aesthetic is comprised of an interconnected composition-performance dynamic, formally exhibited as a frenetic physical representation of erratic and rapidly fluctuating sonic collages which are produced primarily with electronic technology.[4]

---

[1] Due to the length of the title, this work will be referred to in abbreviated form throughout this document as *Lady Dice*. Furthermore, see Appendix I for a description of the underlying plot/concept of this music-drama which will be referenced on occasion.

[2] See page 37

[3] The word BlipVert is specifically defined as "a television advert of a few seconds' duration" (*Oxford English Dictionary Online,* s.v. "blipvert"). However, BlipVert's deeper meaning as an artistic statement is associated with the (somewhat) popular 1980s television series *Max Headroom*. In the series' first episode, blipverts, though maintaining their aforementioned utilitarian definition, contained a rather unpleasant side effect in that some viewers would explode after viewing a blipvert. This side effect is entertainingly, and morbidly, described in detail in the beginning of the episode, which may be seen at the YouTube link https://www.youtube.com/watch?v=ekg45ub8bsk (Mays 2012).

[4] The electronic technology used by BlipVert primarily includes a ProTools digital audio workstation, a powerful recording, mixing, and editing program which I've been using since the year 2001. The ancillary technology used in

When presented publicly, audiences become immersed in an eclectic world of sound and motion in which dynamics, emotions, timbres, rhythmic patterns, instrumental and vocal nuances, stylistic elements, and body movements are constantly changing. This dynamism creates the impression of a synthesized artistic methodology which is grounded in a stream-of-consciousness approach to creation where musical elements attain a highly flexible character—compositions formulate a basis for remixing and re-invention in a live setting.

Spontaneity drives to the heart of how BlipVert achieves its identity in a practical context. BlipVert compositions idealize a creative practice in which impulsive "inventiveness" and "the achievement of coherence" (Pressing 1988, 166), essential components of improvisatory skill, are held in a delicate equilibrium. Inventiveness is accomplished by allowing musical ideas to germinate on their own by abandoning pre-determined formulas, processes, and stylistic concerns. Structural development in BlipVert compositions occurs as a perpetual process of constructing and combining random musical fragments to mold an overarching totality. It is helpful to think of BlipVert compositions as organic constructs which contain many different seeds of musical inspiration,[5] all of which are growing, developing, and intertwining with one another. The result is a colorful landscape of sonic textures which is ostensibly random, yet maintains genuine underlying connections which, when analyzed, formulate an interconnected structural coherence.[6]

---

my compositions includes a wide variety of software programs (FXpansion's Geist and Tremor, Native Instruments Reaktor), hardware components (Korg EMX-1), touchscreen applications (Apple iPad), and vocal and instrumental recording devices (Line 6 POD Guitar Direct Box, TC Electronics' Vocalive). For a detailed synopsis of my approach to studio work and how it relates to BlipVert, see "DiY Dynamic: Experimental Electronic Music and the Underground in the San Francisco Bay Area" (Northlich 2013).

[5] Examples include multi-layered polyphonic vocal melodies, complex percussion patterns, extended melodic motifs, and genre specific musical sections utilizing specific instrumentation.

[6] For an in-depth analysis of a BlipVert composition which specifically delineates structural coherence, see my article "The BlipVert Method: Consonance at the Intersection of Composition and Performance" (Northlich 2018).

BlipVert's compositional spontaneity is expanded upon in performances which are largely improvisatory:[7] musical passages are continuously remixed and reconfigured from one medium to another. It is in performance where BlipVert compositions take on a significantly different character, becoming wholly reconstituted original works in and of themselves. An intricately composed sonic collage becomes situated in an environment which allows for flexible electronic manipulation and recreation. Such flexibility brings with it an acute awareness in terms of BlipVert's interaction and involvement with the space, the audience, the instrumental components present,[8] and the musical material itself—I become intensely focused on the improvisatory decisions and actions necessary for an impactful and engaging BlipVert performance. Hence, BlipVert performances rely on an intimate association with electronic technology which facilitates a maximum amount of expressive freedom, particularly where it concerns body movement. Body movement constitutes the dramatic core of BlipVert performances: some movements are related to manipulating technology, others are spirited theatrical representations of the music itself. The inherent spontaneity in my compositional practice is translated to the visual realm via the human body in a live situation; I am able to most directly express the dynamism of my musical personality in the moment of performance.

In his discussion of synaesthesia as an artistic conception, art historian Simon Shaw-Miller notes that "in its most common form a sound stimulus will immediately trigger a palpable

[7] As improvisation and spontaneity are somewhat interchangeable terms, they will both be used throughout this document. According to the online Cambridge Dictionary, spontaneity is defined as: "Happening or done in a natural, often sudden way without any planning or being forced" (*Cambridge Dictionary Online* – b, s.v. "Spontaneity"), where improvisation is defined as "a performance that an actor, musician, etc. has not practised or planned" (*Cambridge Dictionary Online* – a, s.v. "Improvisation"). The point here is not to become lost in the terminology, but to illustrate my creative practice the most effective and throught-provoking way.

[8] By instrumental components is meant whatever an individual is utilizing, i.e. "performing on," to produce and manipulate sound during a performance. Such components would include, but are not limited to: acoustic instruments, electric instruments, effects pedals, MIDI controllers, computers, devices typically associated with DJs or DJ culture (turntables, CDJ players, mixing boards), home built instruments, and found objects.

and unavoidable visual experience" (2013, 8). In the case of BlipVert, and continuing with Shaw-Miller's rationale, music "is tactile, occupies space as much as it does time and above all, is visual" (1). BlipVert exists as a unique kind of "visual music" (Strick 2005, 16) based predominantly in spontaneous creation which opens the door to interconnected hybrids of artistic expression. Dovetailing on Shaw-Miller's assertion, ascertaining the visual essence of BlipVert presents an opportunity to re-contextualize its aesthetic character as an interdisciplinary construct which is multi-sensory or synaesthetic.

Synaesthesia may principally be defined as a "unity of the senses," where "sensory perception of one kind may manifest itself as sensory experience of another" (Strick 2005, 15). Synaesthesia's theoretical inclinations as a transformative creative practice find their roots in twentieth century visual art which "formed modernism's most important center of gravity" (Shaw-Miller 2013, 3):

> …a crucial aspect of music's attraction for partisans of synaesthesia involved claims made for its status as a pure abstract art. This held true, above all, in the visual arts, where such pioneers of abstract painting as Wassily Kandinsky and František Kupka asserted that the formal abstract structures of musical composition pointed the way towards a new art, while music's direct and emotional appeal indicated a condition to which art should aspire. (Strick 2005, 16)

> …the idea of synaesthesia served to mediate between music and visual art in the twentieth century and proved essential to the development of abstraction. Emphasizing the perceiving subject, the theory of synaesthesia tended to break down sense perception into discrete units, whereby one sensation found its equivalent in another…(Ibid).

For the early abstract artists, the mysterious and nebulous nature of music provided a perfect foundation upon which to formulate an aesthetic equal, i.e. a locus of inspiration for the expansion of visual art. In this particular case, the synaesthetic relationship is catalyzed by

music; visual art is challenged to reach heightened levels of sensory perception via music's multi-dimensional nature.

However, when considered in the context of interdisciplinarity,[9] Shaw-Miller notes that synaesthesia engenders "subsidiary ideas of complementarity and hybridization" where artistic elements may exist in a variety of congruous, yet subtly amorphous, relationships:

> …in an instance of interdisciplinarity, two things might be seen to merge to become a third, creating relationships that are in concord although identity is usually transformed. Or the relationships may be characterized by coexistence, or a form of parallelism, where mutual, non-dominant concord predominates (2013, 4).

The hybridization brought about by interdisciplinarity ultimately leads to an interchangeable and fluctuating milieu of artistic action and reaction, allowing for the spontaneous reinvention (and rejuvenation) of the symbiosis between artistic properties. Concerning BlipVert, spontaneity gives rise to its synaesthetic particularity—visuality in BlipVert performances is actualized by spontaneous bodily reactions to rapidly shifting sonic constructions, thus providing a visual complement to the music and enhancing the impact on the audience member. This active-reactive dynamic results in a coherent depiction of synaesthetic interdisciplinarity: BlipVert's fundamental identity is signified by an interconnected relationship between music and visuality as sound definitively triggers the visual event. However, BlipVert's sound-movement dynamic, though intriguing, has in my view reached a denouement in terms of expressive impact, personal interest, and aesthetic growth. A great deal of creative possibilities concerning BlipVert still remain to be discovered.

[9] Bristol University art history professor Simon Shaw-Miller makes an intelligible choice of terminology when describing the synaesthetic confluence of visuality and music as interdisciplinary. Shaw-Miller goes on to make a distinction between the prefixes "inter" and "multi" when ascribing their significance to creative subject areas: interdisciplinary suggests integration while multidisciplinary indicates juxtaposition (Shaw-Miller 2013, 3). Furthermore, Shaw-Miller mentions that "interdisciplinarity maintains its character as a somewhat fluid term" (Ibid). The notions of fluidity and artistic integration are central not only to BlipVert's aesthetic, but also to *Lady Dice.*

My recent efforts to expand BlipVert's synaesthetic character have focused on the musical score. As a logical starting point, traditional Western music presents a practical diagrammatic layout of directives where "you can find everything in the score except the music itself" (Avram 2016, I), a point accentuated by the musicologist Edward Lockspeiser:

> I am sure it is right to say that in music despite the precision of pitch…or the accuracy of dynamics, there is an element of obscurity, even of deliberate vagueness, in the notation of a musical score (1973, 61).

The music of BlipVert has never involved a notated component. Yet, as an artist who maintains a diverse oeuvre – including many works for instrumentalists using conventional Western notation – there has always been a desire to transmute my artistic proclivities to adopt an equally diverse and multi-dimensional character. One of the most relevant mediums for my purposes is that of graphic scores, or the incorporation of visual symbols, shapes, and colors into a notational schematic of music. As a possible solution to the recondite nature of traditional Western notation, graphic scores are indispensable in offering "personal visualisations of the musical events and processes that are taking place in…composition(s)" (Lock 2008, 1), bringing with them the propensity to "activate the performer's creative participation" (Bruhn 2009, 39). Where it concerns BlipVert, the expansion of the notational paradigm to encompass alternative creative processes, gestures, emotional states, and aesthetic visions illuminates two interconnected principles: 1) As a construct of visual-music, BlipVert's synaesthetic interdisciplinarity becomes enriched by maintaining a symbolic document which provides aesthetic accessibility to BlipVert's ethos, and 2) the idiosyncratic principles of BlipVert now have an opportunity to adopt a more inclusive nature in terms of working with ancillary performers. No longer is the visuality in BlipVert performances, primarily expressed as physical movement, confined to a singular entity. The inclusion of revamped musical scoring into the BlipVert experience provides

an effective blueprint for cross-disciplinary collaboration while keeping the eccentricities of BlipVert embedded in the overall experience.

Therefore, by re-evaluating and building on a deeply personal synaesthetic conception, the music-drama *Lady Dice and the Emerald Oyster Honeycomb* has come to fruition. The spontaneous interplay between sonic, visual, and textual conditions in this six-scene composition reveals a fluid *Gesamkunstwerk* where each condition is perpetually changing, shifting, and blending with each other. The expressive heterogeneity in *Lady Dice* ultimately induces a plurality of expressive layers throughout the work, i.e. a collection of sonically diverse moments in time which concomitantly maintain their own individuality and exhibit interrelationships with other like moments. I refer to this idea as snapshot composition: a collection of contrasting creative ideas which are exhibited as a complex of interconnected parts (rather than as an unfolding linear narrative), ultimately formulating an overarching structure of amalgamated influences which is polychromatic in nature. Metaphorically, it is helpful to think of this idea in terms of a scrapbook or photo album of pictures, clippings, drawings, and designs—different moments in time which formulate a distinctive patchwork of imagery and information. The term polychromatic is used purposefully, evoking the image of a multi-colored canvas of expressive phenomena. That color can function as a "core element of sensory perception" which "requires no interpretation or decoding, yet can act directly on the emotions" (Strick 2005, 18) is one of the fundamental principles of *Lady Dice*. Colors and shapes function as catalysts for enhancing synaesthetic interdisciplinarity, thereby elucidating the spirit of snapshot composition and providing practical options for individual growth and cross-disciplinary collaboration.

The deeper implications of synaesthetic interdisciplinarity in *Lady Dice* are best outlined by musicologist Edward Lockspeiser: "the further we proceed in the world of visual knowledge,

the more complex is the optical and psychological interplay" (1973, 61). Following on Lockspeiser's logic, the intensive focus on psychological states in *Lady Dice* has allowed for a profound reflection on emotional dynamics within BlipVert's synaesthetic milieu; according to renowned psychologist and professor Robert Plutchik, "emotions are an essential part of who we are and how we survive" (2001, 344). The above-mentioned augmentation of synaesthetic interdisciplinarity via the musical score in *Lady Dice* has brought about a condition in which emotional nuances are literally drawn into the musical experience. Pitches, dynamics, articulations, and rhythmic delineations now intermingle with a graphic element which I refer to as the Pneuma Stream.[10] Pneuma Streams function as specified visual models for emotional behavior throughout a musical performance. The visual characteristics of Pneuma Streams inspire a deeper visceral engagement with the musical material on behalf of the performer, emphasizing composer Anthony Braxton's notion that performative interpretation of imagery and abstract visual symbology in a musical work "affirms the personality of the interpreter" (Braxton in Lock 2008, 12).[11] Going further, Pneuma Streams exist as a microcosmic interpretive element within the larger macroscopic graphic formulations. The persistently evolving nature of the graphic scores throughout *Lady Dice* perpetually stimulates non-specific emotional engagement in the work as a whole, while Pneuma Streams encourage more specific emotional

[10] Pneuma, from the New Testament Greek Lexicon, is non-specifically defined as "the vital spirit" or "soul," and in theological terms as "The Spirit of God" or "The Holy Ghost" (*Dictionary*, s.v. "Pneuma"; Bible Study Tools, n.d). In Stoic philosophy, the Ancient Greek word πνεῦμα, or *pneûma*, literally means "breath of life" (Wikipedia, s.v. "Pneuma [Stoic]"). There are no religious connotations or innuendos in *Lady Dice*. Regardless, the Stoic definition of pneuma most closely aligns with my conception of Pneuma Streams and their inclusion in a musical score. The addition of a visual directive to a musical score which relates to the breath of life stimulates an instrumentalist or vocalist to imbue their performative character with a complex psychological significance. One may think of Pneuma Stream notation as a visual representation of the vital spirit or breath of life a performer may integrate into their performance.

[11] This quote, acquired from Graham Lock's 2008 article "'What I Call a Sound': Anthony Braxton's Synaesthetic Ideal and Notations for Improvisers," originally appears in Anthony Braxton's Composition Notes Volume "D" (CN-D), page 469.

reactions. Performers are invited to study and internalize the graphic scores in every scene in order to develop their own unique worlds of interpretation and meaning from broad and magnified perspectives.

Therefore, in an effort to concisely address BlipVert's rejuvenated character, this paper will address in detail the following interrelated structural components of *Lady Dice and the Emerald Oyster Honeycomb*, and how they contribute to a comprehensive formulation of snapshot composition:

1. The concomitance of visuality and musical dynamics in a large-scale work and their resulting enhancement of synaesthetic interdisciplinarity;

2. The inner-workings of Pneuma Streams and how they substantiate emotional significance throughout *Lady Dice*, and furthermore how this concept connects to the larger picture of images synthesizing with sonic states;

3. The importance and relevance of BlipVert as a fundamental governing body over the majority of the musical, visual, and textual components, and furthermore how such governance is facilitated, spontaneously and deliberately, through collaborative and technological means.[12]

Developing Visuality: Expanding a Personal Paradigm

The most evident boundaries separating visual art and music may best be outlined in terms of perceptual distinctions:

> The painter has a problem. When one hears a symphony, no one asks what the music is about. Whether the listener likes the music or not, he is first aware of the fact that sounds are being created in certain combinations. When one looks at a painting, he is more like than not to ask 'what is this about?' The fact that it is first a painting and second a subject is often lost on a viewer (Presley 1986, 57).

From a more detailed perspective, art historian Jeremy Strick distinctly identifies one of these perceptual distinctions as time:

[12] Please see page 44 for an additional sub-section addressing the larger purpose of text in this music-drama.

> Music is, of course, a time-based medium. Musical compositions unfold through time: even the character of a single note is partly defined by duration…while it is true that a viewer might take considerable time to apprehend fully a complex painting, the painter still has little or no control over the sequence or order in which the viewer's observations are made (2005, 19).

When viewed by an individual, the fixed empirical nature of visual art assumes a corporeal vitality. In effect, an intimate bond is formed between the viewer and the object (i.e. the work of art in question), a point highlighted by art historian and theorist Stephen Cheeke:

> A picture desires to be brought into a relation with a viewer and to be made alive; 'one immortal look' will realise the will to live of the image. If we anthropomorphise the image in this way, then every painting desires never to pass out of the light of the eye, to be safe again within the 'bond' of the person who stands before it at an exhibition…(2008, 15).

In contrast, music demands the attention of "the mind's eye" (Whitney 1980, 15). When experiencing the gradual unfolding nature of a musical composition, the listener is situated within a fluctuating world of dynamics, pitches, timbres, rhythms, and instrumental idiosyncrasies which "shapes time," and where the "harmonic interplay of tonal cohesion and gravity – punctuates time with resolution and with metric and rhythmic order" (Whitney 1980, 16). Whitney further elaborates on the effect of music's time-shaping properties on the listener and their immediate environment:

> There are no words for the dynamics of architectonic pattern which stress the fluidity and diverse expressiveness of musical motion. The ear perceives patterns of tone by means of infinitesimal inflections of microscopic bundles of air: the tonal "clay" the composer sculpts is flexible and dynamic. Newton's laws of mass or thermodynamic laws do not cease when a string quartet performs. Air moves more swiftly, and easier than clay or paint. Almost any material an artist might select is too sluggish to sculpt in time and motion – too languid or too inertial for a visual medium meaning to imitate music, or to vie with music's dynamism (15)

The differences concerning the above interpretations of time in music and visual art may best be characterized as a perceptual divide between elasticity and stasis. That music has historically been considered a "referent or inspiration for…heightened states" (Strick 2005, 15) suggests that

an art form with an inherent elasticity may animate a disparate medium. Hence, the time-shaping properties of music provide an ideal foundation for discovering "*complementarity*[13] for eye and ear" (Whitney 1980, 15)," inspiring visual artworks which may be elucidated as synaesthetic in that they "give up all resemblance to natural form, and create a purely abstract language of form—a visual music" (Fry, 1913; see Fig. 1). Art historian Judith Zilczer emphasizes this point:

> …the premise that painting should emulate music—inspired some of the most adventurous visual art of the twentieth century. Not only did music serve as a model and catalyst for abstract painting, but the musical ideal also sparked a parallel movement to create visual media incorporating the dimension of time (2005, 25).[14]

In the case of BlipVert, music inspires a similar visuality. The physicality exhibited during BlipVert performances (as outlined above) may be considered as a spirited and spontaneous visual by-product of the composed material, further highlighting the efficacy of music's temporal elasticity. Throughout my experiences composing music for and performing as BlipVert, I have continually examined how I might have a more direct and intuitive connection with its particulars. Thanks to the digital technology employed by BlipVert, particularly in performance, I become invariably linked with my sonic creations by engaging with their nuances on an intuitive and tangible level:

> …digital instrumentation…provides the capability to modify, over and over, and reshape a composition without signal degeneration. In effect, a composer becomes the performer of his own creation for better or for worse; this responsibility was traditionally assumed by both the painter and sculptor without question" (Whitney 1980, 17).

[13] Italics in original.
[14] Expanding on Zilczer's point, Wassily Kandinsky is one of the more well-known proponents of representing synaesthetic conditions in visual art. Kandinsky was "committed to affirming synaesthetic ideals in his painting and he played a leading role in the promulgation of these ideals in artistic circles, in part through his 1911 book *Concerning the Spiritual in Art*" (Lock 2008, 7).

Though it might seem that BlipVert embodies an ideal where it concerns linking aesthetic and human conditions, any attempt at changing, adding to, or subtracting from this ideal runs the risk of altering Blipvert's creative ethos by causing a separation between myself and the music. The idea of eliminating myself as a performer or interpreter from the equation significantly reduces

Fig. 1 – Kandinsky's *Composition VII* (1913). This work is considered to be the "apex of (Kandinsky)'s artwork before the First Word War" (Wassily Kandinsky, n.d.), representing "the first time Kandinsky achieved with painting what he believed musicians achieved with music: a pure translation of feelings into formal abstract elements that are capable of expressing the human spirit" (Ideel Art: The Online Gallerist for Contemporary Abstract Art, n.d.). Image reproduced from https://www.ideelart.com/magazine/kandinsky-composition-vii.

the dramatic interplay between sound and physicality in performance, one of the distinguishing if not defining characteristics of BlipVert. Furthermore, John Whitney's above point of the painter and sculptor's intimate relationship with their work identifies the separation the composer has from music itself, as "between (the) composer and his music 'lurks' portentously – in triumph or disaster – his interpreter, soloist, or ensemble" (Ibid). Therefore, despite music's inherent power

as an elastic time-based medium, the composer ultimately relies on an outside party to infuse their work with its essential emotional profundity.

Following on Wassily Kandinsky's synaesthetic efforts of representing "formal abstract elements" in his paintings (Ideel Art: The Online Gallerist for Contemporary Abstract Art, n.d.; see Fig. 1), the notational document provides a convenient symbolic blueprint for re-contextualization in *Lady Dice*; the two-dimensional score aspires to three-dimensional depth.

The "restrictive and artificial reality" (Avram 2016, II) of the musical score desires an emotional complement, thereby revitalizing it with an "intrinsic freedom and creativity to be assumed by the interpreter" (III). Musicologist Siglind Bruhn underscores this point by ascertaining the structural influence of graphic notation:

> The most obvious examples of music integrating a strong visual element can be found in compositions written in graphic notation. This system, by which a composer specifies or suggests performance ideas developed from the verbal directions found in earlier scores, which were now expanded and, in part or in toto, replaced by imaginative symbols that intended to activate the performer's creative participation. Known at least since the middle of (the 20th) century (Morton Feldman's *Projections* of 1950-51), this notational practice moved more and more into the area of non-specific-analogy of sign and intended contents (Bruhn 2005, 39; see Fig 2).

Graphic scores heighten the visual effect of musical notation by transforming, reorienting, redefining its conventional appearance, thereby expanding the boundaries of the work as well as the boundaries of interpretation (see Avram 2016, III).[15] Jazz historian and musicologist Graham Lock further explicates the conjoined expansion between score and interpreter:

[15] One historically relevant example of such heightened scoring is that of "Augenmusik," i.e. "Eye music," written and painted scores "that flourished in the fifteenth and sixteenth centuries" (Bruhn 2000, 41). Augenmusik included "musical notation with a symbolic or otherwise extra-musically informative meaning that is apparent to the eye but not to the ear" (41-42). Other well-known composers of graphic scores include Earle Brown, John Cage, Morton Feldman, Cornelius Cardew, Anthony Braxton, Cathy Berberian, George Crumb, and Stanford Professor Mark Applebaum to name a few. The visual scope and innovation achieved through graphic scoring is excellently depicted

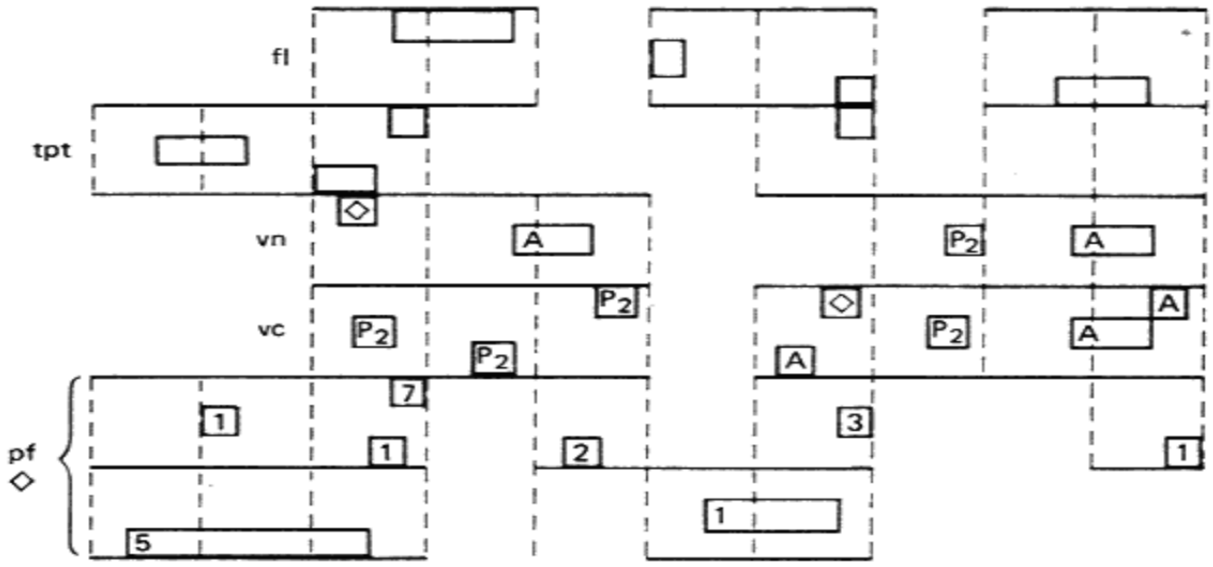

Fig. 2 – Morton Feldman's *Projection II (Opening)* (1951). In Feldman's score "time is represented by space, and in which the spaced boxes specify only instrument, register, number of simultaneous sounds, mode of production, and duration" (Griffiths 1995). Image taken from Griffiths 1995 at https://www.cnvill.net/mfgriff.htm. Original image from: Edition Peters No. 6940, © 1951 by C F Peters Corporation, New York.

> …graphic and symbolic notations…operate as improvisational portals through which vibrational factors such as personal creativity and "the feeling of the moment" can infuse a performance, thereby ensuring that the score retains the potential to be relevant to any player (and any community) at any time…graphic scores allow wider scope for improvisation and have the advantage of undermining critical notions of 'correctness,' since there is no correct way to play, say, a sequence of coloured shapes. They can also encourage players to explore the full potential of their instruments, going beyond normally prescribed (because conventionally notated) parameters, so creating a personal sound/style that will better express 'individual presence' (2008, 8).

Using Kandinsky's practice as a guide, the flexibility of graphic scoring has the capacity to concretize the esoteric qualities of BlipVert's sound configurations, thus providing a communicable link between visual abstraction and conventional musical notation. In *Lady Dice*, musical scores strikingly depict the sonic formulations of BlipVert and the ensemble both literally and figuratively (see Fig. 3; Fig. 4). Ultimately, the visually abstract scores and resultant

in musicologist and composer Theresa Sauer's comprehensive book *Notations 21* (2009), which features an immense variety of graphic scores from composers from around the world.

musical stimuli are produced from the same mindset, contriving (as Kandinsky might have it) a logically congealed model of visual-musical expression. Now, through graphic scoring, BlipVert as composer achieves a fresh and inspiring method by which to commune with and represent the affecting nature of its music, simultaneously allowing aesthetic accessibility to BlipVert's ethos. Ancillary performers and participants have the opportunity to become subsumed within BlipVert's aesthetic by interacting with graphic material which may be interpreted both flexibly and precisely. Through these conditions, the polychromatic essence and efficacy of snapshot composition becomes illuminated: widely varied moments of musical inspiration—moments in time—achieve an ideal synthesis through a secondary visuality,[16] thereby immersing the spectator in a milieu of multiple sensory stimuli and creating an interactivity between the spectator and the performer(s). This immersive interactivity is most accurately characterized as a "mentally absorbing process" which emphasizes "diminishing critical distance from what is shown and increasing emotional involvement in what is happening" (Popper 2007, 181). In effect, the visual qualities of snapshot composition attempt to provide some representation (however sincere) of music's "unknown realm" (Hoffman 1989, 96) thus highlighting the significance of synaesthetic interdisciplinarity in *Lady Dice.* Moreover, the communicative congeniality between music and visual art becomes further illuminated: both properties function as interdependent translation devices for each other's profundity, ultimately re-contextualizing their perceptual distinctions and revealing intricate layers of emotional depth throughout the

[16] The scrapbook metaphor as described above is especially relevant here. The scores contained in *Lady Dice* are immensely varied in their expressive characters—some scores synthesize conventionally notated material with abstract artistic conceptions, while some scores are merely visual representations of the sonic material (this is particularly evident in "Prelude: Apertures"). Visual representation also achieves a further level of variation in that each scene distinguishes itself in how its elements are depicted—some scenes contain a full score for the entire ensemble (e.g. "Scene II: Hallucination #1"), while other scenes contain specific scores for each group of performers (e.g. a percussion score, a soprano score, and a conceptual BlipVert/Conductor score for "Scene V: Discorporation").

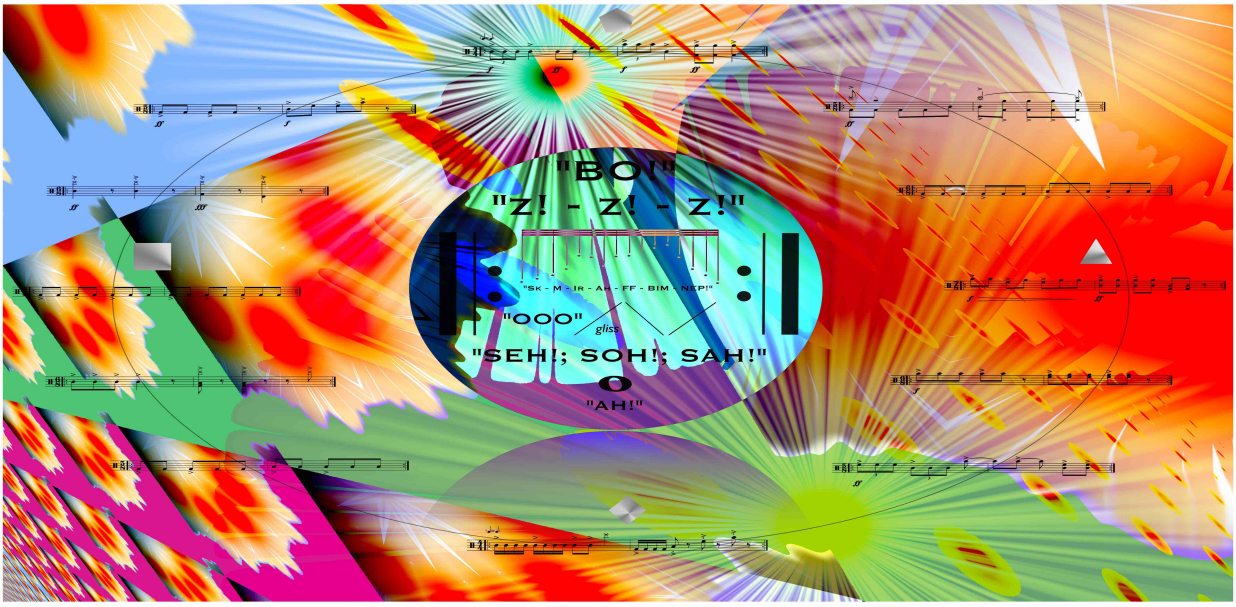

Fig. 3 – "Scene II: Hallucination #1" - full score. "Hallucination #1" (from the master score document *Lady Dice and the Emerald Oyster Honeycomb*) is a two-dimensional circular graphic which features distinctly notated percussive fragments on the outer circle and obscure vocal fragments, or utterances, in the inner circle. The outer circle represents an adherence to precision via conventional music notation, while the inner circle represents a departure from any conventionally notated passages or orthodox vocalizing (with the exception of the repeat signs). The abstract imagery is meant to capture the essence of the scene in a wholly concise snapshot of inspiration, accentuated by BlipVert's sonic colorations, thereby subsuming both viewer and performer in a hallucinatory world where order and chaos collide haphazardly.

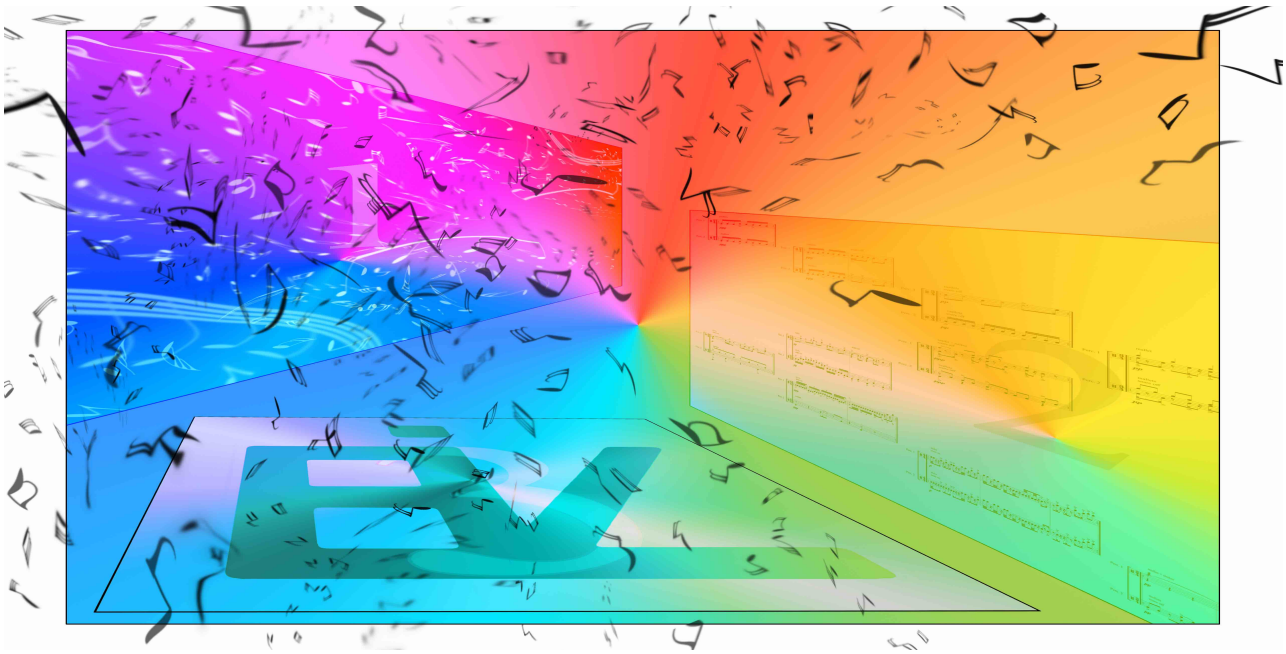

Fig. 4 – "Scene V: Discorporation" - Percussion Score. "Discorporation" (from the master score document *Lady Dice and the Emerald Oyster Honeycomb*) represents, in visual and musical formats, three distinct planes of musical activity which vacillate between abstraction and precision via conventional music notation, with the bottom third plane consisting solely of Blip-Clip improvisation (explained below on page 42) between the instrumentalists, vocalists, and BlipVert/Conductor. The score in this case attempts to visually represent the push and pull between musical chaos and uniformity.

work. Overall, graphic scoring effectively highlights the "fluctuation between the ephemeral and the object, music as invisible and visible" (Shaw-Miller 2013, 36):

> It is the perception of music moving to the condition of art, or art to the condition of music. But looking is a complex matter, related to both what is known, and what is available to be observed. What to look at in music is constructed through an oscillation between outward information and inward vision. It is not simply a case of music being *visible*,[17] it is also that music involves *visions*[18] (Ibid).

Concerning Time

"From the psychological viewpoint, time is a complex conception, an abstract idea" (Lexmann 2008, 55). In the case of BlipVert and *Lady Dice*, the newly enhanced synaesthetic interdisciplinarity brought about by graphic scoring results in an expressive totality whereby the fleeting essence of musical time becomes substantiated within the fixed empirical milieu of visual art. Hence, time adopts a non-linear character, a point reinforced by composer Jonathan Kramer:

> The non-linear mode of thinking is present to some degree in everyone and in every culture. Our left-brain society has tried to suppress it. But, in reaction against the excessively linear values of our technological society, vertical music has become an important force in recent years. It is a holistic music that offers a timeless temporal continuum, in which the linear interrelationships between past, present, and future are suspended (1988, 387).

Though seemingly contradictory in its conception, Kramer's compelling notion of a "timeless temporal continuum" defines the essence and intriguing possibilities of snapshot composition. For one, that time may become fragmented into contrasting layers of sound infuses the composer's practice with a re-contextualized temporal idiosyncrasy—timelines of musical activity may now be captured as distinctive entities which may be subsequently molded, rearranged, and combined. In *Lady Dice*, graphic scores categorically represent this temporal

[17] Italics in original.
[18] Italics in original.

restructuring as individualized and distinctive synaesthetic worlds; the expressive layers are explicitly exhibited as interdependent moments of visual-music. Hence, the "fluidity and diverse expressiveness of musical motion" (Whitney 1980, 15) attains a certain "substantiality" (117) when visually re-contextualized. This is to say that music's temporal elasticity is captured, to echo Jonathan Kramer's above point, as a timeless document—any interrelationships between past, present, and future are concretized and presented to the performer and audience as an amalgam of temporal conditions. The contemporary pianist Ju-Ping Song expands on this idea when describing the composer Salvatore Sciarrino's music:

> The concept of vertical time in Sciarrino's music and the juxtaposition of simultaneous timelines find their source in art where the sculpture or painting contains in itself - in its showing - a permanence out of time, as opposed to the necessary linear unfolding of a musical work (Song 2006, 7).[19]

Secondly, the abandonment of linear-based time constructs allows for a palpable freedom on the part of the interpreter (or performer), justifying Kramer's insinuation that a continuum may exist within a timeless construct. The composer Ana-Maria Avram highlights the implications of such interpretive freedom in a musical work:

> …I think that music today has a real need for an intrinsic freedom and creativity to be assumed by the interpreter: joy, pleasure, playfulness – feelings so lacking in the combinatory music that was the mainstream of Western music in the second half of the century and beyond – a restrictive and artificial reality, partly caused by excessive and ineffectual over-precision of a multitude of details in the graphic expression of this music (2016, II-III).

By means of graphic scoring, the re-contextualized temporal character of *Lady Dice* provides an almost ideal solution to Avram's statement. A substantial portion of the graphic musical scores in *Lady Dice*, despite their temporal fixity, may be interpreted at-will by the performer, thereby

[19] Italics in original. For my purposes, and particularly where it concerns snapshot composition, I believe that the scrapbook analogy is more pertinent than the notion of verticality when discussing music's temporal elasticity in the context of permanence. That one may be able to broadly view a temporal continuum seems to be a more sensible approach to outlining a coherent concept of visual-music.

affirming the performer as "a creative person in his or her own right" (Braxton in Lock 2008, 9). The concomitance of graphics, colors, and conventional notation in *Lady Dice* serves to mediate the relationship between conventional musical structure and an individual's expressive uniqueness. Similar to Anthony Braxton's graphic scoring, the unorthodox images in *Lady Dice* "act as improvisatory portals through which 'individual presence,' with all its mystery and unpredictability, can enter into the process of performance" (16).[20] Therefore, from an interpretive perspective, it is the performer who animates the temporal vitality of the graphic scores, and consequently the work as a whole.[21] The encouragement of individual choice liberates the graphic score from its temporal fixity in that performers may conceive of, literally, infinite interpretations of the scores themselves. Each performer in *Lady Dice* encounters myriad moments in which to variegate the temporal flow: e.g. pausing time, accelerating and decelerating, creating loops, shifting indeterminately between notated cells of activity, and repeating fragments of previously stated material (see Fig. 5; Fig. 6).[22] From this dynamic a continuum of creative rejuvenation occurs with each presentation of *Lady Dice*, as performers continuously revamp the work's temporal character (and consequently its structural character). Anthony Braxton notes the synaesthetic implications of this creative rejuvenation in that each performer ultimately formulates "their own experience of…visual-audio connection and creativity" (Lock 2008, 11).[23]

---

[20] …and the synaesthetic ideal is always present, both in the bringing together of the visual and the musical" (Lock 2008, 16)

[21] The performer in this case includes both on-stage participants and the conductor, referred to throughout the score as "BlipVert/Conductor," who maintains just as much as a performative presence as the instrumentalists and vocalists.

[22] By the same measure, the presence of conventional notation keeps the work grounded in a symbolic familiarity, ultimately striving for a coherent "balance" amongst notational styles in order to "encompass all the possibilities that music has to offer" (Lock 2008, 15).

[23] This quote originally appears in Anthony Braxton's Composition Notes Volume "A" (CN-A), page 394.

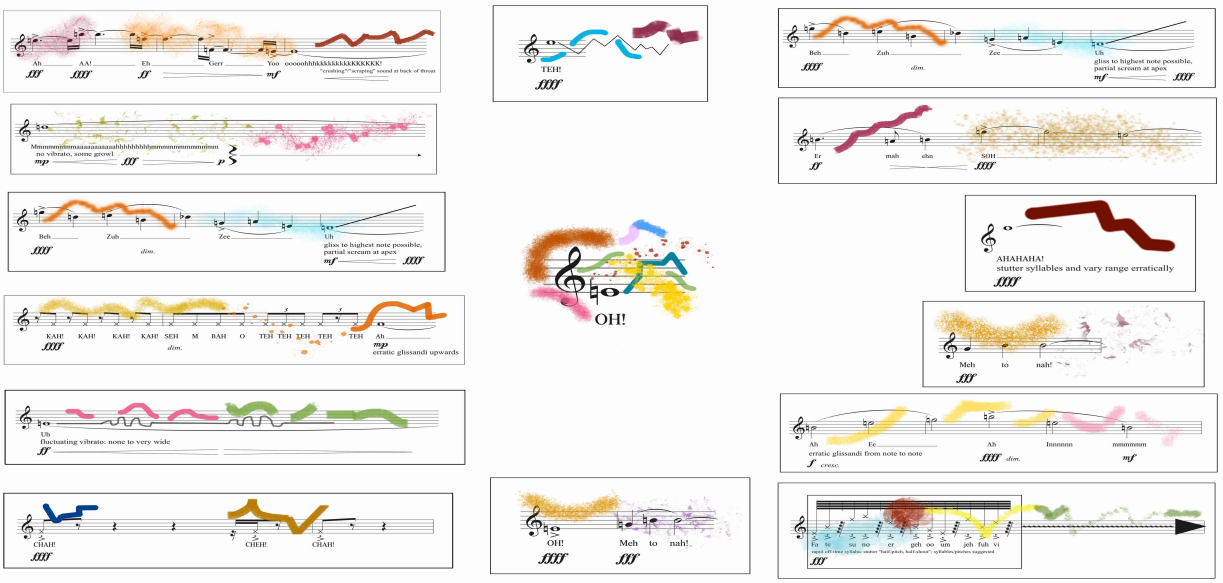

Fig. 5 – The soprano rehearsal score from the first half of "Scene III: Summoning the Four Suns" in *Lady Dice*, where sopranos are given 14 cells of musical activity which surround centralized pitch of E natural. Each soprano chooses when to vacillate between each cell and the centralized pitch, and furthermore how long to repeat or hold each cell (or the centralized pitch).

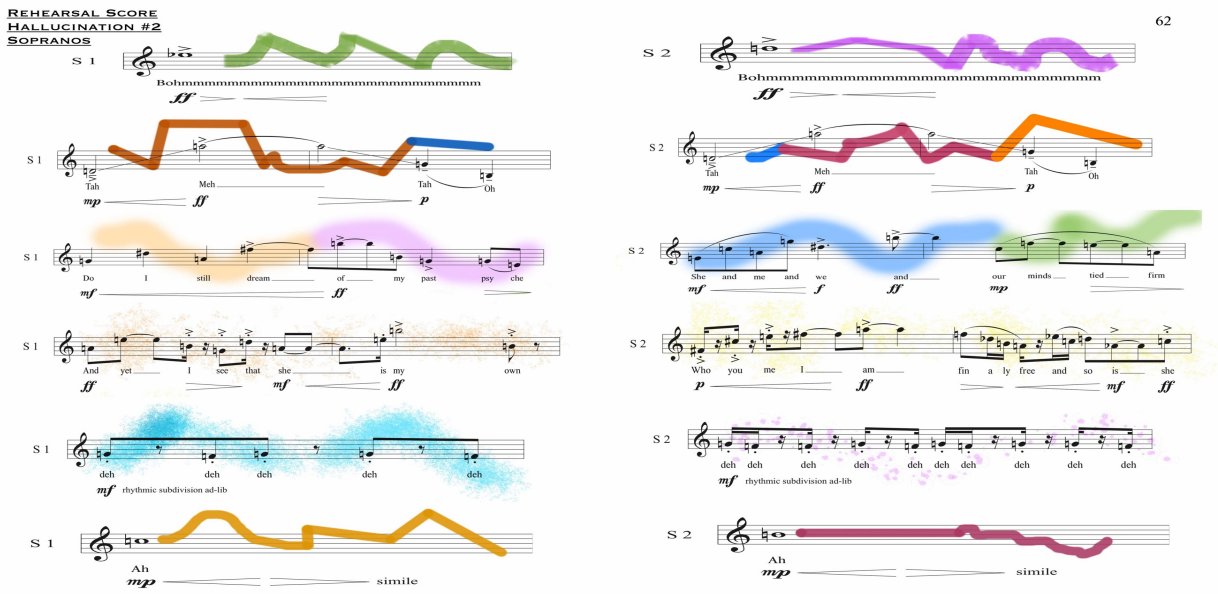

Fig. 6 – The soprano rehearsal score from "Scene IV: Hallucination #2." Similar to Fig. 4, sopranos indeterminately choose when to vacillate between each fragment during performance and how many times to repeat or hold each fragment. BlipVert/Conductor takes a more active role in this scene through Blip-Forms, cueing sopranos to create loops with the notated material, accelerate and decelerate, and stop altogether regardless of the tuned percussions' continuous playing.

Pneuma Streams: Illuminating Emotional Depth

The idea that "color…may have a purely abstract or a 'musical' quality that exists independently of the subject depicted" (Delacroix in Lockspeiser 1973, 38) delineates the nexus where music and visuality find synaesthetic unification in *Lady Dice*. As a powerful and influential creative property, "color has the property of appearing to indicate dimensional depth" which signifies it's compelling "emotional content," (Presley 1986, 74), a point explicated by Jeremy Strick:

> Organized according to a relative scale that bears direct comparison to that of music, color is a core element of sensory perception. Immediately apprehended without much effort from the subject, color requires no interpretation or decoding, yet can act directly upon the emotions, like a musical note. Through melding and juxtaposition, compositions of varying complexity can be developed that may call forth musical associations (2005, 18).

Color in *Lady Dice*—in conjunction with abstract shapes, dimensional planes, and obscure photographic imagery—provides a striking visual complement to music's "emotive outcry about sound" (Rothenberg 2002, 164). However, that color and music can both act directly upon the emotions indicates that the communicable link between these two properties may assist in ascertaining, or at the very least intuiting, layers of emotional depth in a synaesthetic work. In an effort to define this emotional significance, the visuality in *Lady Dice* is further enhanced with the inclusion of an "*evaluative* component"[24] (Juslin and Sloboda 2001, 3) to authenticate its abstraction. I therefore introduce the Pneuma Stream.

Music and emotions are inextricably linked as abstract phenomena. Wassily Kandinsky's *Composition VII* literally illustrates the notion that "when an individual engages with music, either as a performer, listener, or composer, a very broad range of mental processes and contents

[24] Italics in original.

may be engaged" (Ibid). E.T.A. Hoffman's identification of music's "unknown realm" where one "leaves behind all precise feelings in order to embrace an inexpressible longing" (Hoffman 1989, 96) designates the inherent abstractions in music and emotion as unstable, fluid elements, a point accentuated by psychologists Patrik Juslin and John Sloboda:

> Music takes place in time, in a constant flux. Emotional responses to music are often induced by particular kinds of changes in the music (2001, 6).

Much like music, "emotions rarely occur singly, or in pure form" (Ekman 2003, 70). Even an ostensibly singular emotional condition triggers a multitude of underlying changes in the body and mind:

> When we are in the grip of an emotion, a cascade of changes occurs in split seconds, without our choice or immediate awareness, in: the emotional signals in the face and voice; preset actions; learned actions; the automatic nervous system activity that regulates our body; the regulatory patters that continuously modify our behavior, the retrieval of relevant memories and expectations, and how we interpret what is happening within us and in the world (65).

Both musical and emotional dynamism contain an inherent perpetual flexibility which intimately links them together. In his *Kreisleriana*, E.T.A. Hoffman provides wonderfully vivid descriptions of the music of Haydn, Mozart, and Beethoven which metaphorically encapsulates the interconnected nature of music and emotions in addition to their ability to paint detailed and animated pictures. According to Hoffman, Haydn's music:

> …lead(s) us through endless, green-forest glades, through a motley throng of happy people. Youths and girls sweep past dancing the round; laughing children behind trees, lying in wait behind rose bushes. Teasingly throw flowers at each other. A world of love, of bliss, of eternal youth, as though before the Fall; no suffering, no pain; only sweet melancholy longing from the beloved vision floating far off in the red glow of evening…

Hoffman goes on to discuss the music of Mozart:

> Dread lies all about us, but withholds its torments and becomes more an intimation of infinity. We hear the gentle voices of love and melancholy, the nocturnal spirit-world dissolves into a purple shimmer, and with inexpressible yearning we follow

> the flying figures kindly beckoning to us from the clouds to join their eternal dance of the spheres…

And finally, Hoffman strikingly characterizes Beethoven's music:

> Here shining rays of light shoot through the darkness of night, and we become aware of giant shadows swaying back and forth, moving ever closer around us and destroying within us all feeling but the pain of infinite yearning, in which every desire, leaping up in sounds of exultation, sinks back and disappears. Only in this pain, in which love, hope, and joy are consumed without being destroyed, which threatens to burst our hearts with a full-chorused cry of all the passions, do we live on as ecstatic visionaries (1989, 237-38).[25]

Hoffman's insightful and picturesque descriptions signify that "virtually the whole range of human emotions can be expressed by music" (Presley 1989, 51). What is particularly notable about his descriptions is the powerful and persistently morphing visual imagery he concocts by attempting to define the musical-emotional abstractions inherent in each composer's music; an "ekphrastic" interpretation of abstraction à la Kandinsky's *Composition VII*. Though Hoffman and Kandinsky's methods of visualizing musical-emotional abstraction are intriguing, they are ultimately subjective reflections on music's emotional fervor as well as the myriad inner psychological ideations music is capable of evoking.

My conception of the Pneuma Stream attempts to provide—through color, shape, and degree—a flexible visually interpretive and evaluative component for emotional expression in a musical work. As a means of continuing to enhance synaesthetic interdisciplinarity in *Lady Dice*, Pneuma Streams appear as notated emotive content which is, literally, embedded within a musical score; such notations therefore appear as colored streams of varying size, shape, behavior, and consistency.[26] Pneuma Streams are interpreted from four perspectives:

[25] Hoffman's descriptions are also found in Shaw-Miller 2013, 38.
[26] This description is also included in the complete score for *Lady Dice* in the "Pneuma Steam Exposition" section, page ix.

1) Emotional Type: The type of color used in a Pneuma Stream corresponds directly to the type of emotion indicated. Color type also refers to the emotional degrees, or "intensity dimensions" (Plutchik 2003, 103), particular to each emotion (outlined in Fig. 5);

2) Psychological Incorporation: The amount of "investment" each performer has in a particular emotion is determined by the Pneuma Stream's transparency versus its opaqueness; i.e. "thicker" colors indicate a strong commitment to emotional types, while more transparent colors indicate a mild adherence to emotional types;

3) Emotional Stability: The shape of a colored Pneuma Stream corresponds to the emotional stability. Coherently defined lines indicate stability, while those lines that represent blotches, smudges, or streaks represent a haphazard or unstable representation of the indicated emotion. As a related characteristic, the size of a Pneuma Stream corresponds to the amount of emotional facial signals (see Ekman 2003, 65); or expressive evidence, that are to be incorporated in the emotional delivery;

4) Intensity + Behavior: Using the musical staff's vertical dimension as a guide, the behavior of emotional intensity[27] over time is indicated by the Pneuma Stream's path as well as its position on the staff. Angular linear shifts indicate rapid changes in intensity, while fluid lines represent more flexible, fluid changes over time.[28]

Formulating a Pneumatic Structure

The theoretical relationship between pitch and hue may be most conveniently observed in Isaac Newton's color wheel and his belief that "each of the seven notes of the Western scale corresponded to a color in the rainbow" (Mattis 2005, 213). Newton's color conception results in

[27] The idea of intensity here is not to be confused with Plutchik's "dimensions" of intensity which concern emotional degree *types*—the types of emotion existing between annoyance and rage in the anger spectrum. Intensity as represented by its position on the staff adds another intricate dimension to emotional types themselves. For example, (see Fig. 8) someone may be characterized as "intensely annoyed" which would indicate a lighter shade of red on a high position on the staff. One may also be "mildly horrified" which would indicate a darker shade of green on low position on the staff.

[28] As this is a relatively new way of codifying an ancillary notational condition, these parameters were what I thought to be the most significant qualities to be addressed not only in terms of the emotional implications *Lady Dice*, but as the fundamental emotive properties of Pneuma Streams in general. Furthermore, these parameters were assigned considering musical performance complexities and the range of expressive possibilities in performance, which I considered to be essential as relating to emotional essences. Due to the variability of emotional characteristics, these parameters are meant to be reevaluated and redesigned for subsequent works on an individual basis.

seven distinct hues: red, orange, yellow, green, blue, indigo, and violet (Ibid). However, as renowned psychologist Robert Plutchik observes, "combining these colors at different intensities…produces millions of colors" (2003, 103). The variability of color, and the fact that "emotions merge endlessly into each other" (Ibid)[29] indicates that "neither colors nor emotions are clear-cut categories with sharp boundaries" (Ibid). Yet, much like musical dynamics, a composer "knows the forms of emotions and can handle them, 'compose them'" (Langer 1957, 222), which insinuates that emotional dynamism may be structurally systematized within a creative context. Therefore, my efforts to codify a sensible schematic which may assist with composing emotional content is directly related to the compositional "building blocks" (Juslin and Sloboda 2001, 12)[30] or tools employed for the creation of *Lady Dice*.

Revisiting the color-emotion relationship, psychologist Robert Plutchik provides a convenient starting point for categorizing emotional type, coincidentally the first condition of Pneuma Stream identification. Plutchik's renowned circumplex model of emotional states consists of a three-dimensional structure where eight basic emotional states and their intensity dimensions are cogently arranged by color associations (see Fig. 7).[31] In order to make sense of the seemingly infinite gradations of emotions and color, Plutchik designates his model as a theoretical conception, justifying his rationale based on relevant historical research:

> Over the centuries, from Descartes to the present, philosophers and psychologists have proposed anywhere from 3 to 11 emotions as primary or basic. All the lists include *fear*, *anger* and *sadness*; most include *joy*, *love* and *surprise*.[32] There is no unequivocal way to settle on a precise number, although factor-analytic

[29] Robert Plutchik paraphrases William James' complete quote from his "Principles of Psychology" which concisely parallels emotions in terms of color dynamics and the many hues they may exhibit, stating "internal shadings of emotional feeling merge endlessly into each other" (1890, 448).
[30] Also see Bruno Nettl. 1974. "Thoughts on Improvisation: A Comparative Approach." Musical Quarterly 60 (1): 1–19.
[31] In a possible nod to Isaac Newton, Plutchik mentions that the "simple parallel between emotions and colors suggests that an emotion circle may be constructed based on the assumption of basic emotions that is analogous to the color circle" (Plutchik 1997, 23).
[32] Italics in original.

studies, similarity-scaling studies, child-development studies and cross-cultural studies are useful. But in the final analysis, this is a theoretical decision to evaluated in terms of the inferences and insights to which it leads, the research it suggests and the extent to which empirical data are consistent with it. The psychoevolutionary theory assumes there are eight basic emotion dimensions arranged in four pairs (2001, 349).

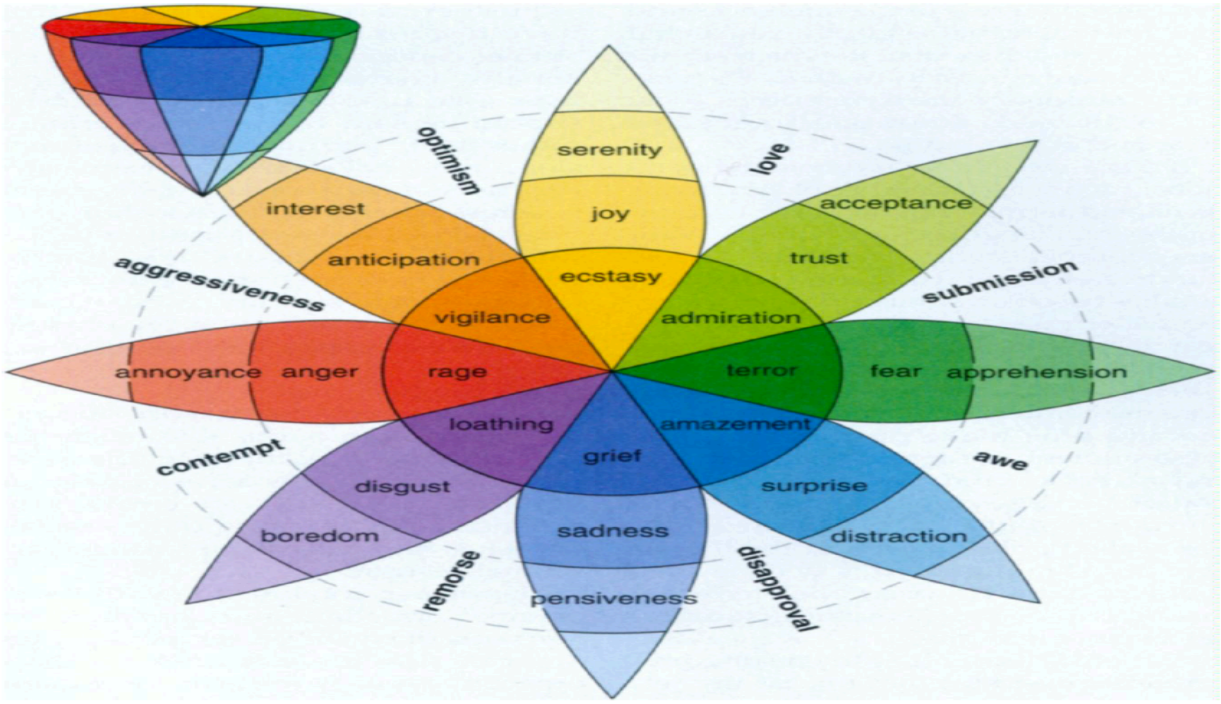

Fig. 7 – Robert Plutchik's emotional color wheel. In Plutchik's words: "The cone's vertical dimension represents intensity, and the circle represents degrees of similarity among the emotions. The eight sectors are designed to indicate that there are eight primary emotion dimensions defined by the theory arranged as four pairs of opposites. In the exploded model the emotions in the blank spaces are the primary dyads—emotions that are mixtures of two of the primary emotions" (2001, 349; Image reproduced from Plutchik 2001, 349).

The justification for Plutchik's reductive emotion-color model is reinforced by psychologist

William McDougall:

> The color sensations present, like the emotions, an indefinitely great variety of qualities shading into one another by imperceptible gradations; but this fact does not prevent us regarding all these many delicate varieties as reducible by analysis to a few simple primary qualities from which they are formed by fusion, or blending, in all properties…the same is true of the emotions (1921, 114).

Overall, the claims of Plutchik and McDougall suggest that the broad spectrum of emotional nuances are reducible to elemental properties, thereby encouraging relational modeling as an effective means of streamlining classification.

In attempting to superimpose Plutchik's theories on the creative properties of *Lady Dice*, the eleven Pneuma Stream gradations represented in *Lady Dice* (see Fig. 8) are a direct result of the technology used to design the music-drama's graphic scores. Whereas Plutchik's theoretical model arises primarily from psychological research, Pneuma Streams' theoretical design originated first from reflecting on the technological tools, or building blocks, used to create their emotion-color associations. Pixelmator Pro, a versatile macOS graphics program, features a variety of options for assigning color to one's documents (Pixelmator, n.d.; see Fig. 9).

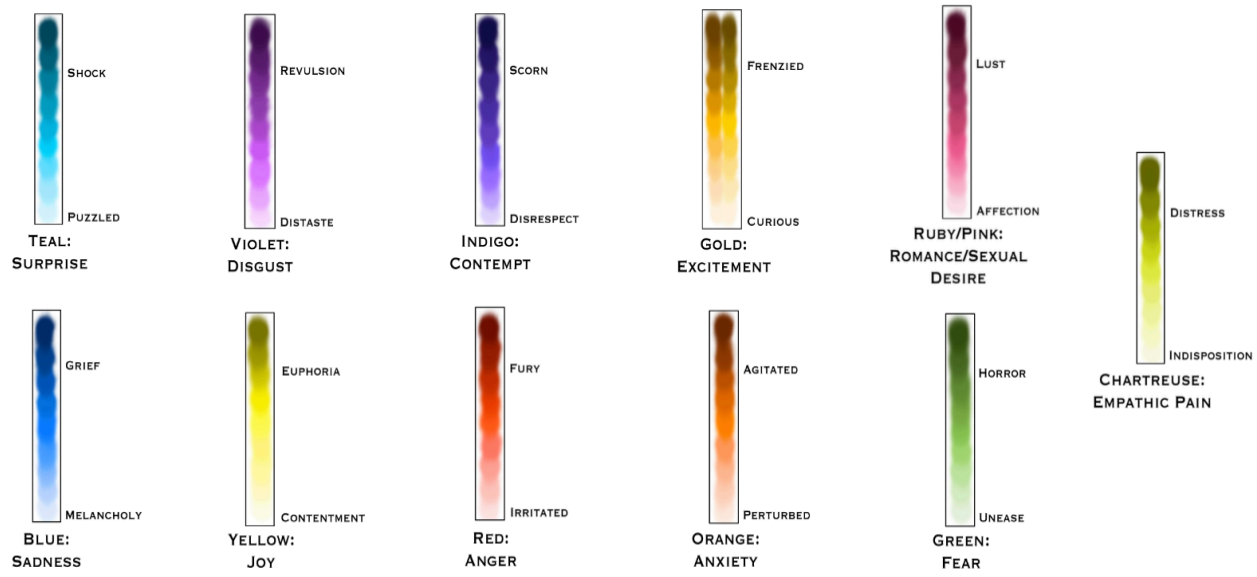

Fig. 8 – Pneuma Streams' emotional types are codified according to color, shown above and also included in the introductory section of *Lady Dice and the Emerald Oyster Honeycomb's* master score. Each color corresponds to a specific primary emotional type which subsequently contains degrees of emotional nuances depicted as bipolar opposites (see Plutchik 2003, 103) which further correspond to color shade. For example, orange depicts anxiety which features two polar opposites: states of perturbation and agitation. Depending on the color type used, the performer may reference this table in order to ascertain where their expressive emotional content would fall within the bipolarity, and to what degree to incorporate the emotion into their performative content.

Integrating Pneuma Streams into the musical documents of *Lady Dice* required a convenient method of selecting color and shape for each stream, resulting in my extensive use of the grid color formation (see Fig. 9) along with a variety of included brush shapes.[33] Due to Pixelmator

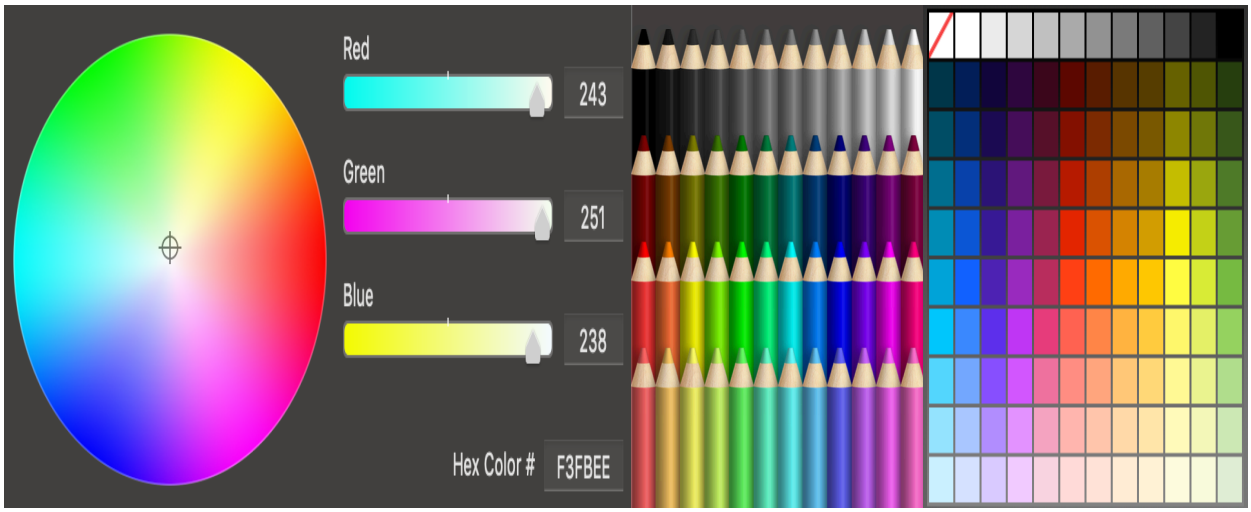

Fig. 9 – Some examples of the Pixelmator graphics program's options for color assignment: e.g. (from left) a color wheel (which includes a white and black gradient addition), RGB sliders, a mock colored pencil set, and a grid color formation which integrates white and black shades into the color variants (Pixelmator, n.d.). Images taken from the Pixelmator program.

Pro's variability concerning color and shape choice, designing each Pneuma Stream's size, shape, consistency, and behavior became a relatively straightforward task.[34] Furthermore, Pixelmator's variability made possible the option of interpretive scoring based on a representative design (see Fig. 10); Pneuma Streams provide a scoring element for performers in

[33] In addition to color selection, Pixelmator Pro also features a wide selection of brush shape options for its paint brush tool selection, including categories such as "nature," "artist," "abstract," "smoke," and "grunge" brush shape types (Pixelmator, n.d.). Users may also design and upload their own brush shapes to Pixelmator Pro.

[34] However, the inclusion of Pneuma Streams with the musical material required a substantially deeper level of compositional consideration. For instance, I had to decide, to varying degrees, what exactly I wanted the performer or instrumentalist to emotionally evoke, or how to emotionally behave, at distinct points in the score. Decisions such as these were made based on the textual material, the musical energy, the relation to the additional graphic scoring, and the overarching sensibility of the scene. The rewarding aspect of scoring in this manner is, after looking at the score objectively, I felt as though I created a visually stimulating document that would encourage involvement from a highly personal perspective. This is to say the score would belong as much to the performer as it would to the composer.

addition to a conceptually illustrative representation of, for example, pre-recorded electronic material. This synthesis reinforces the efficacy of the above-stated communicative congeniality between music and visual art, moreover suggesting an intrinsic flexibility in their interrelated properties. The conceptual interplay between music and visuality in *Lady Dice* reveals emotional depth as a product of the performer's engagement with the musical material itself in addition to an abstract visual impression of musical material. The organization of Pneuma Streams' emotional content in relation to color largely involved guidance from Plutchik's theoretical

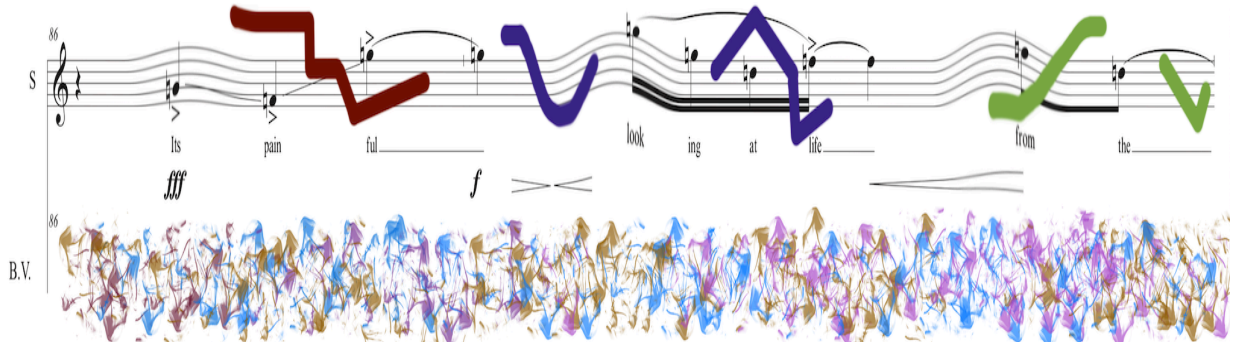

Fig. 10 – An example of two distinct Pneuma Stream scoring types, interpretive and representational, occurring simultaneously in "Scene II: The Lady's Lament." The notation of the lead soprano (Lady Dice) contains several different colored streams of material which are meant to be interpreted based on specific parameters (see Fig 5 and the outline of Pneuma Stream characteristics above on page 27), while the BlipVert/Conductor part (B.V.) is simply represented as a field of multi-colored shapes which attempt to interpretively depict the accompanying electronic material.[35]

modeling in conjunction with personal creative decisions concerning composition and *Lady Dice's* essential character. Along with his identification of basic emotions, Plutchik observes three distinct characteristics within the language of emotions: "intensity, similarity, and polarity"

[35] Also included in "Scene II: The Lady's Lament" are visually distorted, or "warped," elements of notation (enlarged notes, distressed staff lines, etc.), particularly in the soprano part. These are signified in the master score as "movement warps," which are meant to encourage dramatic movement (hand and arm movements, flowing upper torso movements, crouching, shaking, etc.) in accordance with the noted material. Such movement is solely up to the discretion of the performer (should they choose to adopt their properties or not). While such warps very well could have been codified into their own unique system, the reasoning against this endeavor was to avoid encumbering the performer with a plethora of expressive directives; Pneuma Streams by themselves require a deeper commitment to and involvement with the musical score. As this is the work's major, and only, aria however, movement warps were included to inspire expressive involvement, from emotional and physical perspectives, in "Scene II" alone, as they do not appear anywhere else in the work.

(Plutchik 2003, 103). For my creative purposes, Plutchik's notion of "intensity dimensions" (Ibid) formulates an effective basis for ascertaining the range of psychological nuances experienced within a basic emotional type. Color no doubt assists with categorization in this case. For one, basic emotions are signified by a core color: e.g. red equals anger, blue equals sadness, green equals fear, and so on (see Fig. 7).[36] The intensity dimensions of each emotion—distinguished by polarities of nuance, e.g. mild and acute, which bookend each intensity dimension—are further linked to shade variations of the core color. For example, the basic emotion of joy, represented by the core color yellow, contains two polarities of contentment (mild), and euphoria (acute). Hence, intensity of color directly corresponds to the intensity of the related emotion; the performer incorporates their own interpretation of emotional intensity into their performance based on the color of the Pneuma Stream.

Going further, the attempt to access deeper dimensions and variations of emotional expression—the "cascade of changes" which occur "when we are in the grip of an emotion" (Evans 2003, 65)—was guided by the technological variability of Pixelmator Pro. The variability of Pixelmator's brush shapes in terms of shape, size, and color consistency provided a cogent blueprint for representing emotional dynamics. Again, with the performer in mind, these conditions respectively adhere to a performer's level of focus on the stated emotion (scattered vs. concentrated), the degrees of facial expressions in relation to emotional type,[37] and the performer's theatrical investment in the emotional state (opaqueness, or high investment vs.

[36] My color choices in relation to emotions for Pneuma Streams uses Plutchik's emotional color wheel as a guide, yet is primarily the result of personal choice as I wanted to find an original way to incorporate Plutchik's ideas into my own creative context. Furthermore, my identification of emotional nuances for each Pneuma Stream color (and related basic emotion) is the result of consulting alternate texts on the subject of emotions, such as Charles Darwin's *The Expression of the Emotions of Man and Animals*.

[37] The choice of this condition reflects the notion that "the variations in intensity within each emotion family are clearly marked on the face" (Ekman 2003, 58).

transparency, or low investment). Furthermore, in aligning with the two-dimensional nature of the conventional music score, Pneuma Streams represent all of the above stated qualities as elements which change over time vertically and horizontally; angular and fluid streams respectively depict abrupt or free-flowing changes on the horizontal axis of the score, which are accompanied by fluctuations of degrees of intensity depending on where the Pneuma Stream is vertically located on the staff. Overall, Pneuma Streams galvanize the performer to add intricately subjective amounts of inspiration, excitement, depth, drama and intensity into their presentation.[38] Moreover, the inherent dimensions of emotional expression in Pneuma Streams as represented by color and shape inculcate a performer's aesthetic individuality through interpretive visual-audio creativity.

Personal Motivations and the Deeper Purpose

My own motivations behind creating Pneuma Streams primarily concern revealing the emotional dynamism in snapshot composition particular to BlipVert and *Lady Dice*, and how such dynamism may be translated and disseminated to a wider ensemble of performers. The comprehensive emotional states imbued within the timeless layers of snapshot composition are outwardly depicted as an abstractly fixated compendium of colors, shapes, dimensional planes, gradients, and textures; each graphic score is, in fact, a complex world unto itself. Pneuma Streams provide a substantive visual road map for emotional expression within these fixated constructs, thereby infusing their temporal permanence with a redesigned emotional perpetuity. In fact, Pneuma Streams serve to animate this permanence, presenting a system of colors and

[38] Pneuma Streams may also appear in the score as blocks of solid color which singularly characterize a distinctive fragment of musical material. For example, a fragment of musical material ensconced within a solid distinguishable block of indigo would indicate to play the passage contemptuously, with the emotional nuance based on the specific color shade (see Fig. 8).

shapes which exemplifies the enigmatic nature of emotional behavior from a microcosmic perspective,[39] thereby idealizing Jonathan Kramer's above notion of a timeless temporal continuum. Overall, psychological interplay in *Lady Dice* is elucidated as a sustained thread of relatable visuality which flows through the macrocosmic structure, ultimately fusing it together and allowing specific emotional conditions to be represented in the moment via the contrasting layers of expressivity particular to snapshot composition. Moreover, temporal flexibility is reinserted back into the musical particularities, as Pneuma Streams convey the third-dimensional emotional morphology, as illustrated above by E.T.A. Hoffman, which characterizes the essence of musical activity.

It is important to keep in mind that Pneuma Streams' primary purpose is—for the performer, composer, and conductor (explained below in detail as BlipVert/Conductor)—to encourage a more intimate emotional engagement with the score, and therefore the music, itself. From a performance perspective, this emotional engagement is entirely up to the discretion of the individual. Some performers may simply consider emotional type as a necessary performative condition, others may choose to precisely incorporate all of the Pneuma Stream dimensions into their experience, and yet some performers may choose to create their own emotional schematic for interpretation based on the suggestions given.[40] To galvanize this emotional engagement, the dull simplicity of the musical score (see Avram 2016, I) is imbued with emotionally affecting visual phenomena; the resulting synaesthetic construct fuses illustrative glimpses of Hoffman's

[39] This idea is poignantly described by psychologist Paul Ekman: "Typically, people experience a stream of emotional responses, not all the same ones. Sometimes each emotion may be separated by a few seconds, so that some of the initial emotional responses come to an end before new ones begin, and sometimes emotions occur in overlapping time, blending" (2003, 70).

[40] This is to say that none of the suggested parameters of Pneuma Streams are followed, rather they provide inspiration for emotive content based on the performer's own unique interpretations of color and shape. These caveats are also printed in the introductory section of the master score.

unknown realm with concrete musical symbology, hence elevating the "elision between the elaborated character of the music and its graphic expression" (Ibid). Though the systematized nature of Pneuma Streams may initially seem confining, Pneuma Streams allow the composer and performer to amplify their creative processes by accessing universally relatable phenomena which are elucidated through the highly affecting sensory element of color. Pneuma Streams are by no means an end in themselves, yet they do provide a compelling way forward in terms of expanding one's expressive methodology and vocabulary. With the Pneuma Stream ideology as a foundation, individuals who specialize in dance, sculpture, videography, photography, and music education (to name a few) may conceive of their own systems of "emotional composing" which would consist of new and unique sets of tools, classification systems, philosophical considerations, and aesthetic ideations.

BlipVert, Radiating Outward

Insinuating a synaesthetic context, literary theorist Susan Bernstein states that "music is the terminal station for the exchange of senses" (1997, 75). In the case of *Lady Dice and the Emerald Oyster Honeycomb*, BlipVert, or "BlipVert/Conductor" as indicated throughout *Lady Dice's* master score, ideally characterizes Bernstein's "terminal station": a musical focal point where sensory stimuli are conceived, mixed, manipulated, and redistributed amongst a compact ensemble of performers. The creation of BlipVert/Conductor[41] significantly modifies the idea of the conventional conductor by assigning it a distinctive directorial personality signified by myriad creative duties: triggering electronic samples, mixing sound, cueing performer entrances, providing cue signs for improvisatory interpretation (Blip-Forms), and creatively interacting with

[41] Though it may seem superfluous, adding the terminology of conductor to BlipVert's personae affirms BlipVert's directorial identity in *Lady Dice* by assigning it a coordinating or unifying character.

the onstage ensemble. The result is a spirited and captivating interchange between the amended BlipVert and the onstage ensemble, catalyzed largely by improvisatory interaction.

That "electronic music…can both unsettle and inherit the expressive domain of the body" (Peters 2012, ix) signifies the fervent levels of physical expression that are achieved in solo BlipVert performances. However, BlipVert's essential dynamism encompasses luculent expressive properties which are capable of radiating BlipVert's energy and spontaneous creativity outward to inspire collaborative participation with ancillary performers, musicians, and collaborators.[42]

Electronic Technology, Substantiality of Sound, and Improvisation

Throughout its history, BlipVert's use of electronic technology in composition and performance has been omnipresent. The nature of the technological devices used in a BlipVert live performance are directly related to the tangible nature of my home studio environment and the tools used for composition. I prefer to use studio components that I can treat like instruments, i.e. "playing" the studio devices with my hands as opposed to manipulating a virtual software environment[43]—the more I physically interact with my studio components, the more visceral my compositions become. Thus, the electronic music studio becomes an instrument in and of itself (see Dudas 2010, 29). Yet, as the digital mediums within which composition takes place "(do) not contain a physical palimpsest of a message" (Berghaus, 2005, 236), the transference of this

[42] The impetus to network and collaborate with other creative artists stems from my personal desire to grow and develop as a composer and musician. BlipVert's many activities over the last two decades have been based primarily in a mode of solo expression. *Lady Dice* has afforded me the opportunity to experiment with focusing my interests, talents, and energy outwards to find common ground with alternate art forms.

[43] The desire to "play" my studio components primarily necessitates the utilization of a wide range of MIDI controllers in conjunction with software which, ironically, directly mirrors the components I use for live performance. Some of the more frequently used hands-on components in my studio include an Apple iPad, an Elektron Digitakt Drum Machine/Sampler, a Korg Electribe EMX-1, and a Boss SP-404. For more context, please refer to my 2018 article "The BlipVert Method: Consonance at the Intersection of Composition and Performance." *Intonations* 1 (1): 1-11.

sensibility to a performative environment is what ultimately infuses BlipVert with a corporeal vitality—digitally based music becomes "accessible to the composer in the **performer's**[44] sense of its substantiality" (Whitney 1980: 120):

> With digital system repeatability, time gains that substantiality. The repeatability and the accessibility we gain, if a musical signal is generated as digital signal in a computer, systematically improves its 'materiality.' We gain the power to shape musical signal as substance…Performance thus escapes its previously permanent status as the historic hostage to the 'trained' performer or orchestral group who, ostensibly, are the masters with time. The fleeting insubstantiality of music is transformed. Composing becomes more like molding clay, because of the hands-on process of digital memory manipulations (Ibid).

Whitney's exposition perfectly outlines the immutable unifying link between composition and performance where it concerns BlipVert (and electronic music in general): thanks to electronic technology the inherent flexibility of music, i.e. its time-based nature, achieves *substantiality* as sounds become stored as eternally alterable materials. In my 2018 article "The BlipVert Method: Consonance at the Intersection of Composition and Performance," I write:

> BlipVert performances are as unpredictable as the music itself; compositions are further manipulated with a variety of live performance hardware that focuses on sound manipulation rather than the successful execution of a composition from beginning to end. Thus, the "hands-on" nature of sound manipulation in my home studio translates directly to the performance venue; compositions that have already had a significant amount of tangible input are essentially given a newer, yet familiar, field in which to roam.

BlipVert's identity is defined by the ability to capture and shape sound (and its temporal fluidity) as a substantive property. This idea is central to snapshot composition: a timeless assortment of varied musical moments on a singular canvas of expression where the sonic particulars are displayed and perceived as an amalgamated construct.

[44] Bold in original.

In a live setting, improvisatory interaction and gestural reactions to the sonic material restructure the sonic permanence in real-time from sonic and visual perspectives. Instrumentally, my ability to exploit indeterminacy in performance assures that (again from my 2018 article)

> I am able to improvise and creatively work with one specific sample or motif over a period of fifteen minutes, drawing out as many sounds and ideas as I possibly can…pre-arranged compositional ideas (may) be lengthened or shortened, repeated indefinitely, sonically recreated, altered in terms of pitch or speed, played backwards, and distorted with a wide variety of digital effects.

For BlipVert, sound as a substantive property achieves its maximum level of expressivity in a live context; the restructuring process poses a complex challenge to perpetually "create something new within the decaying site of the old" (Peters 2009, 16). Randomized active engagement with instrumental components and reactive gestures to the music itself ultimately amplify BlipVert's synaesthetic authenticity, challenging the viewer to ascertain the "direct, visible, audible and tactile link between (BlipVert) and the temporal, timbral, and spatial organisation of the sound made" (Peters 2012, 17). Overall, improvisation is the primordial and necessary catalyst which animates BlipVert's creative impetus: spontaneity assists in animating permanence (or substantive musical properties).[45] The conditions of perpetual innovation and intensive aesthetic focus involved in improvisatory action is artfully described by musician David Rothenberg:

> Improvisation embodies freedom, and yet it is a lot of work, always holding you down. Every moment you must be willing to invent something anew. You trust that your own inventiveness is endless, and you stay aware of all possibilities as you decide on just one. There is no need to give up on other roads, as in a calculated game of chess. Each true note includes all the harmonies that remain unsung (2002, 165).

[45] One may also think of this idea as infusing a deliberately structured aesthetic object with its logical opposite of indeterminacy.

The production and restructuring of electronic substantive sound so characteristic of BlipVert solo performances permeates *Lady Dice*, providing an idealized fundamental structural layer for a work centered upon snapshot composition. Samples, soundscapes, electronic textures, and through-composed pre-recorded passages are altered, mixed, and shaped throughout, framing the basis for an unorthodox sound world meant to invoke the psychological depths of the human mind[46] and consequently shaping and guiding the onstage action. Similar to Karlheinz Stockhausen at a mixing console, BlipVert ultimately becomes the "creator of a sound universe, presenting it to the audience while taking place at its sonic epicentrum, holding the maximal control over (the) work by shaping the sound as well as its spacial(sp) properties" (Bengler 2011, 28). However, in an effort to further radiate BlipVert's influence outward—as well as amplify the significance of snapshot composition from a structural and aesthetic standpoint—additional collaborative ideas are added into the milieu which increasingly fuses BlipVert and the ensemble together via improvisatory interaction.

Improvisatory Transference via Blip-Forms; The Blip-Clip

The physical gesturing displayed in solo BlipVert performances provides a conspicuous visual element which, similar to the color and shape properties of Pneuma Streams, may be systematized to achieve a deeper significance in an ensemble setting. Blip-Forms reconstitutes BlipVert's gestural proclivities as an audiovisual lexicon which may be recognized and interpreted by accompanying performers.[47] The term Blip-Forms exemplifies the aforementioned

[46] This sensibility relates to the underlying plot/concept of *Lady Dice*, which may be seen in Appendix I.
[47] Blip-Forms finds its roots primarily in soundpainting. Soundpainting is a "universal multidisciplinary live composing sign language for musicians, actors, dancers, and visual artists" developed by composer and instrumentalist Walter Thompson (Soundpainting – a, n.d.) which uses "hand and body gestures as a way to create real-time compositions" (Soundpainting – b, n.d.). Similar practitioners who utilize a "live composing sign language" (Ibid) in their oeuvres include Anthony Braxton, John Zorn and his Cobra works, and Lawrence D. "Butch" Morris' trademarked system of Conduction (Conduction.us 2013).

attempt to radiate BlipVert's influence as a physically active performer outwards toward a collective body; the formulations of BlipVert's physicality are visually transmitted to auxiliary creative participants, inspiring them to subsume BlipVert's energy and dynamism within their own creative facilities. Blip-Forms functions as a flexibly interpretive system of hand signals which may be inserted into the musical and stage action of *Lady Dice* at any time, thus emphasizing the character of snapshot composition from a live perspective.[48] Similar to the manipulation of electronic music, the efficacy of Blip-Forms is based on improvisatory choice from two distinct viewpoints: the producer: when to use Blip-Forms commands (and in what sequence); and the receiver: how to interpret the commands. Performers are signalled to spontaneously act out unique moments of musical expression—commands include cues for entrances and exits, performing distinctive musical essences, and volume and tempo adjustments (see Fig. 11). In some cases, various Blip-Forms may be intricately combined to create substantial separations from the immediate onstage action, i.e. adjacent fractures into interrelated and interconnected sound worlds. Similar to *Lady Dice's* graphic scoring, BlipVert/Conductor extemporaneously composes physically visual moments in time for performers which stimulates improvisatory inventiveness. Blip-Forms effectively constitute a wormhole through which performers may access an alternate dimension of visual stimulation where the audience

> live(s) out the life of the music, imaginatively projected through the sights and sounds of the performers, with the conductor forming the prism through which the suppressed bodies of the audience can project their own synaesthetic and physical enactment of the music (Shaw-Miller 2012, 46).

By systematizing BlipVert's physicality as a communicative device, spontaneity is transferred to alternate performative bodies, therefore increasing the ensemble's improvisatory

[48] The performance directions for each scene of *Lady Dice* indicate how and when to use Blip-Forms. Some scenes require no Blip-Forms at all, while other scenes use Blip-Forms as an essential expressive element throughout.

vocabulary and heightening synaesthetic interdisciplinarity in the process. Though BlipVert/Conductor retains complete authority over how Blip-Forms are inserted into the action, Blip-Forms' effectiveness as an improvisatory device relies on, in the words of Derek Bailey, "relinquishing of control over at least some of the music," and furthermore "passing over that control not to 'chance' but to other musicians" (Bailey 1980, 88). It becomes clear that any

Fig. 11 – Some examples of the Blip-Forms commands used in *Lady Dice and the Emerald Oyster Honeycomb,* taken from the Introductory section of the complete score. Commands are separated into "general," "performative," and "adjustment" categories, each of which has a unique purpose. Commands displayed above (from left to right): a welcoming cue from the general category signifying to the whole onstage ensemble to follow (or act out) the upcoming command; an "overhand baseball throw" from the performative category which signals to a performer to elicit a large explosion of noise which diminishes to nothing; and a pitch adjustment command from the adjustment category which indicates to a performer to adjust pitch up or down on whatever performative command they are occupied with.

attempt to radiate BlipVert's influence outward requires projecting compositional ingenuity outside of one's personae, a point reinforced by somatics researcher Sondra Fraleigh: "the better to hear what lies in human imagination and can be created by extrinsic means" (2012, 39). In Blip-Forms' improvisatory context, the activation of such projection ultimately relies on the "relationship between an existential openness of beings and an ontological openness of Being where the former is necessary for the latter" (Peters 2009, 16). Put simply, regardless of the functional idiosyncrasies, Blip-Forms' collaborative success is entirely dependent on the

producer and receiver's enthusiasm for free, spontaneous, and eclectic experimental sonic expression.[49]

From a more unrestricted perspective, improvisatory ingenuity is further exploited in *Lady Dice* through the use of the Blip-Clip. The Blip-Clip situates the energy and spirit of Blip-Forms within an interpretive graphic context. When the BlipVert logo[50] is encountered (see Fig. 12), the entire onstage ensemble including BlipVert/Conductor engages in frenetic and chaotic collaborative improvisation where each performer "should attempt to express their creative facilities to the maximum possible level of intensity whenever [the BlipVert logo] is encountered" (as mentioned in the *Lady Dice* master score, page viii).

Fig. 12 – The Blip-Clip logo which appears in "Scene I: The Lady's Lament" in a substantial dark red color. Hence, the emotional content of Blip-Clip improvisation in "Scene I," according to the Pneuma Stream color chart, would consist of acute anger escalating towards fury.

[49] Conversely, the notion of projection further intimates that, through a concept such as Blip-Forms, BlipVert/Conductor's own performative identity is amplified; BlipVert/Conductor must perform Blip-Forms in order to elicit a response from the onstage participants.
[50] The (untrademarked) BlipVert logo, developed in early 2001, depicts the letters of the word "BlipVert" in one concise diagram (see Fig. 12).

Though it appears in only two scenes throughout *Lady Dice*, sporadically in "Scene I: The Lady's Lament" and as a major element in "Scene V: Discorporation," the main idea behind the Blip-Clip is to capitalize on BlipVert's vitality by directing the entirety of the ensemble to engage in a collective and intense dispensation of creative energy.[51] Fundamentally, the Blip-Clip may be interpreted as an unrestrained and heightened variant of Blip-Forms which asserts its efficacy in the graphic realm (as opposed, of course, to Blip-Forms' physical realm).

The Ensemble

The live ensemble in *Lady Dice* is meant to directly mimic the character of BlipVert's live electronic performance rig in a solo setting: a small and mobile apparatus of elements which is capable of a maximum amount of freedom and power.[52] The ensemble consists of instrumentation and vocal parts which possess a substantial amount of variability and expressive potential: two sopranos and two batteries of percussion (pitched and non-pitched).

The timbral characteristics of the live instrumental ensemble delineate a flexible sound field which may be congenially enhanced by accompanying electronic textures. As a unique instrumental family in and of itself, percussion

> … provide(s) an enormous range of timbres (and) includes effects that are blown or produced in other ways. Some of the instruments classified as 'unpitched' do in fact have pitch, but this is unpredictable or uncontrollable. A catalogue of percussion can never be complete… (Philharmonia Orchestra 2018).[53]

[51] This energy dispensation is slightly regulated in "Scene II: The Lady's Lament," as some performative parameters, e.g. musical dynamics, types of percussion mallets to be used, are included within and amongst the BlipVert logo. Furthermore, in coordination with the color dynamics of Pneuma Streams, the Blip-Clip logos in "Scene II" retain a distinctive color code which refers to the type of emotional content (indicated in the "Pneuma Stream Exposition section in the *Lady Dice* master score, page ix) performers should feel free to add to their Blip-Clip improvisation.

[52] This rationale is also given and discussed in "The BlipVert Method: Consonance at the Intersection of Composition and Performance" (Northlich 2018).

[53] On a deeper level, the percussion batteries in *Lady Dice* are designed to represent the psychological split personality dynamic between the two main characters (see Appendix I). Each percussion battery has the same non-pitched instrumentation: bass drum, low range tom, mid tom, snare drum, crash cymbal, splash cymbal, woodblock, triangle, tambourine, cowbell, shaker, and whistle. However, as mentioned in the master score, the instruments in percussion battery two maintain slight differences from those in percussion battery one in terms of pitch, timbre,

In contrast to the percussion batteries in *Lady Dice*, the absence of traditionally distinctive timbral nuances provided by strings, woodwinds, and horns are replaced by protean electronic sound structures which formulate an alternate field of timbral possibilities. The effect is that of two diverse sound worlds which oscillate in their representational roles: similar to the electronics, the percussion functions as the essential instrumentation in certain scenes (e.g. "Scene II: Hallucination #1"; "Scene III: Summoning of the Four Suns/Chant for Dissociative Calm") while also providing a supportive "colorizing" role in others (e.g. "Prelude: Apertures"; "Scene I: The Lady's Lament"). One may think of these two percussion batteries as extensions of BlipVert/Conductor's controllable facilities; BlipVert/Conductor vitalizes the percussionists' expressivity through cue signs (see "Scene II: Hallucination #1"), Blip-Forms, and collaborative improvisation (see "Scene V: Discorporation"). Overall, the diverse sonic nature of the acoustic, electric, and electronic sound worlds is meant to provide a fluctuating timbral foundation upon which the dramatic spirit and pervasive timbral essence of the sopranos may be showcased.

Vocally, the soprano voice is most often associated with "the character that the audience most sympathizes with, whether it's as the heroine or the victim" (Lyric Opera Chicago 2018). Throughout much of the operatic canon, the soprano voice is

> one of the most recognizable in opera, with many famous arias and indelible images that are immediately recognizable…Some of the most complex characters in opera belong to this category, including Cio-Cio San in Puccini's *Madama Butterfly*, Violetta in Verdi's *La traviata*, the title role in Dvořák's *Rusalka.* Bess in the Gershwin's *Porgy and Bess*, and the Countess in Strauss' *Capriccio* (Ibid).

size, style, and type, thereby intimating a contemporaneous existence of uniformity and contrast between the batteries (see the "Instrumental Ensemble" section, pages i-iii, from the Introductory pages of *Lady Dice's* master score). The pitched instrumentation for each battery, 4.5 octave marimba and electric vibraphone, similarly follows this notion of uniformity and contrast.

In keeping with this historical salience, the sopranos in *Lady Dice* do provide immediate reference points in terms of their variability, personality, and expressive power. More importantly, the timbral quality and soaring vocal range of the sopranos foregrounds the improvisatory ingenuity brought about by Blip-Forms and graphic score interpretation; distinctive improvisatory nuances and sonic variations achieve their fullest expressive potential as sharp and penetrating tone-colors which extend beyond the timbral fluidity of the instrumental ensemble. Throughout *Lady Dice* the demands on the two sopranos are intense: each voice part requires substantial energy accompanied by a willingness to creatively improvise in both solo and duet capacities (see "Scene III: Summoning the Four Suns" and "Scene IV: Hallucination #2" respectively). In the later scenes, particularly "Scene III: Summoning the Four Suns," "Scene IV: Hallucination #2," and "Scene V: Discoporation," both sopranos are encouraged to interact theatrically with each other as a means to create an interactive sensibility between the two characters, thereby heightening the improvisatory interplay within the work as a whole. Moreover, due to the intensive focus on emotion and psychological states in *Lady Dice*, the soprano's effectiveness as a relatable figure draws the listener deeper into the character's idiosyncrasies.

The sopranos also illuminate the expressive purpose and design of Pneuma Streams. The underlying plot/concept of *Lady Dice* (see Appendix I) staunchly outlines *Lady Dice's* character in terms of emotional complexity. The Emerald Oyster Honeycomb (the secondary soprano part) acts as a direct reflection of *Lady Dice's* emotional nature, eventually formulating her own psychological peculiarities. Hence, the conception and usage of Pneuma Streams are an ideal tool for visually and musically demonstrating the shifting emotional eccentricities of each character. Throughout the scores, Pneuma Streams change frequently in type and behavior (see

Fig. 13, Fig. 10). These constant changes are meant to represent, as directly as possible, the persistent emotional vacillations experienced by *Lady Dice* and her psychological manifestation. By becoming immersed in the methodology of Pneuma Streams, the ultimate hope is that performers begin to develop their own psychological ideations, in effect evolving into the essential nature of the characters themselves. While this is no doubt a demanding task, Pneuma Streams at least provide, as described above, a substantial opportunity for a re-contextualized emotional engagement with the score (and the resultant music) through color and form.

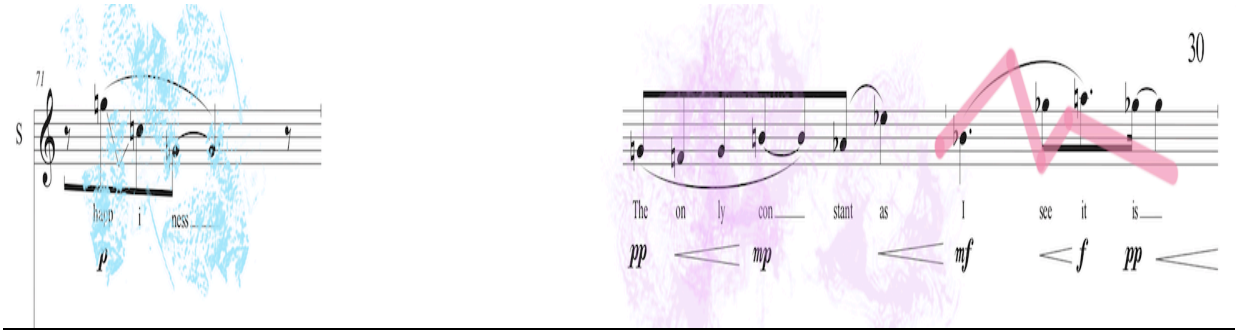

Fig. 13 – An example of changing Pneuma Streams from the lead soprano part (Lady Dice) of "Scene I – The Lady's Lament." Note the shift in color, consistency, behavior, and shape within just three bars of the music.

A Note on Text

With spontaneity and improvisatory interaction in mind, textual considerations in *Lady Dice* alternate between intelligible descriptive prose (see "Scene I: The Lady's Lament") and what are referred to in the score as syllabic utterances (see "Scene II: Hallucination #1"; "Scene III: Summoning the Four Suns/Chant for Dissociative Calm"; "Scene V: Discorporation").[54] In fact, these syllabic utterances make up a considerable part of the textual content in *Lady Dice*, evincing a mysterious yet punctuating tension especially when mixed with the regularized English text. After the aria in "Scene I: The Lady's Lament," *Lady Dice* begins to undergo an

[54] A complete overview of all textual elements in *Lady Dice* are listed in the introductory section under "Textural Content," page xviii.

imaginative transformation via a confluence of syllabic utterances and improvisatory vocalization (on occasion guided by Blip-Forms), thereby creating an "artificial language" (see Swain 1997, 123) which exposes *Lady Dice's* complex emotional nature in its most unrestrained and abstract form.[55] This linguistic artificiality invigorates the overall textual content with a palpable visceral energy. Despite its occasional unintelligibility, language primarily serves to heighten the work's energy and tension through impactful timbral essences rather than definitive literary evocation.[56] As a result, a kind of phonetic painting permeates the music-drama. Throughout the latter half of *Lady Dice*, sopranos are encouraged to thoroughly exploit their vocal facilities by using the syllabic utterances as inspiration to formulate their own unique worlds of abstract color and context. Vocalizing is of course ushered along and amplified by Pneuma Streams,[57] Blip-Forms, and an in-depth synaesthetic engagement with the graphic scores. The phonetic painting in *Lady Dice* interconnects nonrepresentational text with music's abstract nature, rather than constraining music to "(pretend) to copy something solid in the world"[58] (Ibid 62). In effect, the phonetic painting provides a canvas upon which the vocal dynamic may attain a revamped and otherworldly significance. In the case of *Lady Dice*, vocalists are allowed to freely portray emotional abstractions through a spontaneously morphing lexicon based in timbral essences.

[55] The logic behind Kandinsky's *Composition VII* is a helpful comparison here. In this case, the formal abstractions are syllabic utterances and improvisatory nuances which help to formulate the overall artificial language.
[56] Although some literary evocation does occur, primarily in "Scene I: The Lady's Lament," and "Scene V: Discorporation." Scene V's interplay between abstract text and orthodox text, further manipulated by Blip-Forms, formulates a synthesis between the two vocal types and accentuates the climax during the "soprano battle" in this scene.
[57] In this context, Pneuma Streams may also be seen as word painting actualized, or a superimposed visual representation of how musical passages are supposed to be conceptually navigated in a synaesthetic context.
[58] The solid particulars Joseph Swain is referring to are that of formalized linguistic components: syntax, semantics, and "sentential propositions" (1997, 62).

Conclusion

When viewed as a totality, the synaesthetic sensibilities in *Lady Dice and the Emerald Oyster Honeycomb* represent a logical expansion of BlipVert's visual-music aesthetic. The resultant heightened synaesthetic interdisciplinarity ultimately illuminates a "convergent counterpoint" between vision and sound—"the means of expression in both the visual image(s) and the music have equal meaning, similar qualities…" (Lexmann 2008, 60).[59] Regardless, it is the visual component of this counterpoint which has seen the most substantial amount of augmentation throughout the development of *Lady Dice*. By itself, BlipVert's solo composition-performance process is more or less routine for me at this point. Yet, I consistently desire to push BlipVert beyond conventional standards. The *Lady Dice* project has provided an ideal opportunity for me to unearth eclectic and affecting personal artistic skills and apply them to my larger creative practice, subsequently formulating substantial aesthetic, structural, and emotional threads, a "BlipVert-ian" logic, which binds *Lady Dice* together as a whole:

1. BlipVert's physical visual expression has effectively been transposed as a graphical anomaly, finding a deeper synaesthetic synthesis with *Lady Dice's* musical activity and rejuvenating the conventional music score as an active participant in the work as a whole;

2. Pneuma Streams, as an evident graphic element in the scores themselves, provide an emotive notational component which not only aligns with the mentalities of the characters, it synaesthetically imbues the work with a frenetic psychological significance – the essence of BlipVert's emotional temperament;

3. BlipVert's physicality itself is recast as a directional guide for spontaneous interplay between the performers (instrumental and vocal), infusing the entirety of *Lady Dice* with an improvisatory spirit while movement, text, and electronic technology acquire an enhanced visual significance;

[59] Composer Juraj Lexmann specifically identifies the idea of counterpoint as it relates to film terminology, which signifies a "purposeful combination of or contrast between the visual image and the sound with the aim to create a dramatic or another artistic effect" (2008, 60)

4. Snapshot composition has become fully illuminated as a methodology which encapsulates radically variegated moments of visual-music expression which are intimately interconnected and, comprehensively, formulate a polychromatic totality.

The ubiquity of electronic technology continuously introduces new possibilities for elaborating my artistic proclivities. Consequently, the hybridization of creative disciplines thanks to technological advances has given rise to artists who "now routinely combine dance, dialogue, photography, film and music to present an aesthetically rich and immersive exploration of concepts through a multiplicity of media" (Klich and Scheer 2012, 20). Whether or not BlipVert will become such a multifaceted interdisciplinary artist remains to be seen. However, the fluctuating convergent counterpoint achieved in *Lady Dice* has challenged me to redesign my artistic facilities and related oeuvre from unfamiliar and unique perspectives, encouraging me to look deeper into myself as a person and as a composer-performer. In the end, I can only hope Lady Dice herself knows that I have tried to do justice to her and her eccentricities.

WORKS CITED

Avram, Ana-Maria. 2016. Afterword to *The Metamorphosis of the Musical Text*, ed. Iancu Dumitrescu and Ana-Maria Avram, pp. I-VIII. United Kingdom: Edition Modern & ReR Megacorp.

Bailey, Derek. 1980. *Improvisation*. Ashbourne, England: Moorland Publishing.

Bengler, Ben. 2011. *The Audio Mixer as Creative Tool in Musical Composition and Performance*. Graz, Östereich: Institut für Elektronische Musik und Akustik (IEM).

Berghaus, Gunter. 2005. *Theatre, Performance, and the Historical Avant-Garde*. New York: Palgrave Macmillan.

Bernstein, Susan. 1998. *Virtuosity of the Nineteenth Century: Performing Music and Language in Heine, Liszt, and Baudelaire*. Stanford: Stanford University Press.

Bible Study Tools. n.d. "Pneuma – The KJV New Testament Greek Lexicon." Accessed May 23, 2019. https://www.biblestudytools.com/lexicons/greek/kjv/pneuma.html .

Bruhn, Siglind. 2000. *Musical Ekphrasis: Composers Responding to Poetry and Painting*. Hillsdale, New York: Pendragon Press.

Cambridge Dictionary Online – a, s.v. "Improvisation." Accessed July 12, 2019. https://dictionary.cambridge.org/dictionary/english/improvisation

——— b, s.v. "Spontaneous." Accessed July 12, 2019. https://dictionary.cambridge.org/dictionary/english/spontaneous

Cheeke, Stephen. 2008. *Writing for Art: The Aesthetics of Ekphrasis*. Manchester: Manchester University Press.

Conduction.us. 2013. "Lawrence D. "Butch" Morris." Accessed May 19, 2019. https://www.conduction.us/.

Darwin, Charles. 2009. *The Expression of the Emotions in Man and Animals* (4th Ed.). Oxford: Oxford University Press.

Dictionary, s.v. "Pneuma." Accessed May 23, 2019. https://www.dictionary.com/browse/pneuma.

Dudas, Richard. 2010. "'Comprovisation': The Various Facets of Composed Improvisation within Interactive Performance Systems." *Leonardo Music Journal* 20: 29–31.

Ekman, Paul. 2003. *Emotions Revealed: Understanding Faces and Feelings*. London: Weidenfeld and Nicolson.

Fraleigh, Sondra. 2012. "How Things Fall Apart: Alteration of body in Music and Dance." In *Bodily Expression in Electronic Music: Perspectives on Reclaiming Performativity*, ed. Deniz Peters, Gerhard Eckel, and Andreas Dorschel, pp. 35-52. New York: Routledge.

Fry, Roger. 1913. "An Important Event of the Season: Recent Paintings of Mr. Alfred Maurer of Paris." In Zilczer, Judith. 1975. "The Aesthetic Struggle in America, 1913-1918: Abstract Art and Theory in the Stieglitz Circle." Ph.D. Dissertation, University of Delaware.

Griffiths, Paul. 1995. "Morton Feldman." *Chris Villars Homepage*. Accessed May 27, 2019. https://www.cnvill.net/mfgriff.htm.

Hoffman, E.T.A. 1989. "Kreisleriana." In *E.T.A. Hoffman's Musical Writings: Kreisleriana, The Poet and the Composer, Music Criticism*, ed. David Charlton, pp. 79-168. Cambridge: Cambridge University Press.

Ideel Art: The Online Gallerist for Contemporary Abstract Art. n.d. "The Story Behind Kandinsky's Composition VII." Accessed May 26, 2019. https://www.ideelart.com/magazine/kandinsky-composition-vii.

James, William. 1980. *The Principles of Psychology*. New York: Henry Holt and Company.

Juslin, Patrik N. and John A. Sloboda. 2001. "Music and Emotion: An Introduction." In *Music and Emotion: Theory and Research*, ed. Patrik N. Juslin and John A. Sloboda, pp 3-20. Oxford: Oxford University Press.

Juslin, Patrik N. and John A. Sloboda, (eds). 2001. *Music and Emotion: Theory and Practice*. Oxford: Oxford University Press.

Klich, Rosemary and Edward Scheer. 2012. *Multimedia Performance.* England: Palgrave Macmillan.

Kramer, Jonathan. 1988. *The Time of Music*. New York: Schirmer Books.

Langer, Susanne Katherina. 1957. *Philosophy in a New Key*. Cambridge, MA: Harvard University Press.

Last.fm. 2010. "BlipVert + Pete Concrete." 2010. *Last.fm*. Accessed May 19, 2019. https://www.last.fm/event/1470171+Blipvert+%252B+Pete+Concrete.

Lexmann, Juraj. 2009. *Audiovisual Media and Music Culture*. Frankfurt am Main: Peter Lang.

Lock, Graham. 2008. "'What I Call a Sound': Anthony Braxton's Synaesthetic Ideal and Notations for Improvisers." *Critical Studies in Improvisation / Études critiques en improvisation* 4 (1): 1-23.

Lockspeiser, Edward. 1973. *Music and Painting: A Study in Contemporary Ideas from Turner to Schoenberg*. London: Cassell and Company Ltd.

Lyric Opera of Chicago. 2018. "From Soprano to Bass: Exploring Voice in Opera." Accessed June 15, 2019. https://www.lyricopera.org/lyricu/exploringvoiceinopera.

Mattis, Olivia. 2005. "Scriabin to Gershwin: Color from a Musical Perspective." In *Visual Music: Synaesthesia in Art and Music Since 1900*," edited by Kerry Brougher, Jeremy Strick, Ari Weisman, and Judith Zilczer, pp. 210-228. New York: Thames and Hudson Inc.

Mays, Steve. 2012. "Blipverts." *YouTube*. Accessed June 3, 2019. https://www.youtube.com/watch?v=ekg45ub8bsk.

McDougall, William. 1921. *An Introduction to Social Psychology*. Boston: Luce.

Northlich, William, 2013. "DiY Dynamic: Experimental Electronic Music and the Underground in the San Francisco Bay Area." Master's Thesis, Wesleyan University.

———. 2018. "The BlipVert Method: Consonance at the Intersection of Composition and Performance." *Intonations* 1 (1): 1-11.

Oxford English Dictionary Online, s.v. "blipvert." Accessed June 3, 2019. https://www.lexico.com/en/definition/blipvert

Peters, Deniz, Gerhard Eckel and Andreas Dorschel, (eds.). 2012. *Bodily Expression in Electronic Music: Perspectives on Reclaiming Performativity*. New York: Routledge.

———. 2012. "Touch: Real, Apparent, and Absent: On Bodily Expression in Electronic Music." In *Bodily Expression in Electronic Music: Perspectives on Reclaiming Performativity,* ed. Deniz Peters, Gerhard Eckel and Andreas Dorschel, pp. 17-34. New York: Routledge.

Peters, Gary. 2009. *The Philosophy of Improvisation*. Chicago: University of Chicago Press.

Philharmonia Orchestra. 2018. "Percussion." Accessed May 27, 2019. https://www.philharmonia.co.uk/explore/instruments/percussion.

Pixelmator. n.d. "Pixelmator Pro 1.3.4 Prism." Accessed June 17, 2019. https://www.pixelmator.com/pro/.

Plutchik, Robert. 2003. *Emotions and Life: Perspectives from Psychology, Biology, and Evolution.* Washington DC: American Psychological Association.

———. 1997. “The Circumplex as a General Model of the Structure of Emotions and Personality.” In *Circumplex Models of Personality and Emotion*, ed. Robert Plutchik and Hope R. Conte, pp. 17-46. Washington DC: American Psychological Association.

———. 2001. “The Nature of Emotions: Human emotions have deep evolutionary roots, a fact that may explain their complexity and provide tools for clinical practice.” *American Scientist* 89 (4): 344-350.

Popper, Frank. 2007. *From Technological to Virtual Art*. Cambridge, MA: MIT Press.

Presley, Horton. 1986. *Principles of Music and Visual Arts*. Lanham, MD: University Press of America.

Pressing, Jeff. 1988. “Improvisation: Methods and Models.” In *Generative Processes in Music: The Psychology of Performance, Improvisation, and Composition*, ed. John A. Sloboda, pp. 129-178. Oxford: Oxford University Press.

Rothenberg, David. 2002. *Sudden Music: Improvisation, Sound, Nature.* Athens, Georgia: University of Georgia Press.

Sauer, Theresa. 2009. *Notations 21*. New York: Mark Batty Publisher.

Shaw-Miller, Simon. 2013. *Eye hEar: The Visual in Music*. Surrey, England: Ashgate Publishing Ltd.

Song, Ju-Ping. 2006. “Writing the Sonic Experience: An Analytical Narrative of a Journey Into Salvatore Sciarrino’s Five Piano Sonatas (1972-1994).” Ph.D. Dissertation, New York University.

Soundpainting – a. n.d. “Soundpainting.” Accessed May 19, 2019. http://www.soundpainting.com/soundpainting/.

Soundpainting – b. n.d. “Walter Thompson.” Accessed May 19, 2019. http://www.soundpainting.com/walter-thompson/.

Strick, Jeremy. 2005. “Visual Music.” In *Visual Music: Synaesthesia in Art and Music Since 1900*,” edited by Kerry Brougher, Jeremy Strick, Ari Weisman, and Judith Zilczer, 14-23. New York: Thames and Hudson Inc.

Swain, Joseph P. 1997. *Musical Languages*. New York: W.W. Norton and Company.

Wassily Kandinsky. n.d. “Composition VII.” Accessed May 26, 2019. https://www.wassilykandinsky.net/work-36.php.

Whitney, John. 1980. *Digital Harmony: On the Complimentarity of Music and Visual Art*. Peterborough, New Hampshire: McGraw-Hill.

Wikipedia, s.v. “Pneuma (Stoic).” Accessed May 23, 2019. https://en.wikipedia.org/wiki/Pneuma_(Stoic).

YouTube. 2018. “BlipVert (Live @ Art’s Birthday).” Accessed May 21, 2019. http://www.youtube.com/watch?v=Z4jbWLN2XU.

YouTube. 2009. “BlipVert Live @ Gaslab : Eat Concrete ‘Bassfudge Powerscones’ Tour 2009.” Accessed May 21, 2019. http://www.youtube.com/watch?v=Z4jbWLN2XU.

Zilczer, Judith. 2005. “Music for the Eyes: Abstract Painting and Light Art.” In *Visual Music: Synaesthesia in Art and Music Since 1900*,” edited by Kerry Brougher, Jeremy Strick, Ari Weisman, and Judith Zilczer, 24-87. New York: Thames and Hudson Inc.

APPENDIX I
LADY DICE AND THE EMERALD OYSTER HONEYCOMB
PLOT/CONCEPT

Dramatis Personae:

Lady Dice

The Emerald Oyster Honeycomb

Plot/Concept:

The Past:

Long ago, the impossibly beautiful and emotionally enigmatic Lady Dice had countless suitors, many of whom would travel over vast distances for the chance to profess their love for her. Eventually, Lady Dice grew bored with, irritated by, and jaded from the persistent onslaught of attention and false promises. Thus, she permanently confined herself to her remote labyrinthine mirror palace, believing that only she alone was worthy of witnessing her captivating beauty and indulging in her attentions. However, as the years and decades wore on, Lady Dice's isolation gradually gave way to extreme loneliness and yearning for the attention and affections of her past admirers, ultimately giving rise to drastically alternating fits of depression and mania, conditions amplified by her encapsulating mirrored milieu.

The Present:

In an effort to alleviate her emotional perturbances, Lady Dice conceives of an alternate personality state which she names the Emerald Oyster Honeycomb, a psychological-psychedelic companion who is equally beautiful, charming, and unique. Initially, it seems that Lady Dice and the Emerald Oyster Honeycomb ideally complement each other. However, after a period of congenial interaction, the Emerald Oyster Honeycomb soon begins to dominate Lady Dice's psyche, asserting her own enigmatic nature over The Lady's temperaments. As the boundaries between the two personality states become blurred and distorted amongst the constant reflections and illusions of the mirror palace, Lady Dice and the Emerald Oyster Honeycomb battle each other for control of "their" mind, allowing the complexities of their intertwined psyches to pour out in a flood of visual and sonic anomalies.