























Northeastern University



Welcome to the 2007 Visual Music Marathon! The Marathon received over 300 works from 34 countries for its open call, and we are excited to be able to present the very best of those today. We are also screening works chosen by our two principal guest curators, Bruce Wands of the School of Visual Arts and New York Digital Salon, and Larry Cuba of the lota Center, plus several "historic" works on 16 mm film. These will be complemented by other pieces from a number of invited guest artists and by live video performances by Brian Knoth and Jeff Mission.

The works on the Marathon represent a vast range of approaches to "visual music," from pieces in which the images and music are directly tied by the sharing of parameters, to those in which the images "interpret" the music (or vice versa), to works where the visuals are edited in tight synchrony with cues in the music. (In her excellent article found elsewhere in this booklet, Maura McDonnell of Trinity College, Dublin, explores the background of visual music in great detail.) All of these approaches can result in interesting and compelling compositions, and we hope that you will find many works of interest among the 120 pieces presented today.

This event would not have been possible without the efforts of a number of people. I would like to thank Professors Ann Steuernagel and Isabel Meirelles of Northeastern University for assisting in the selection of works from the open call. Thanks also to Sung-Joo Kim, director and programmer of Animpact, Korea, for his programming suggestions. I would also like to thank Cindy Keefer of the Center for Visual Music for her expert advice on the planning and production of the event.

Thanks also to Maureen Ton, who designed all online and print materials for the event, and to Arthur Rishi and John Natale, who helped with the promotion and production of the show. I would also like to thank Andrew Scott for setting up and maintaining all IT systems for the Marathon and Anthony De Ritis, Chair of the Music Department at Northeastern, and Cyndi Baron, Chair of Multimedia Studies, for their early and invaluable support. Finally, a nod to Eric Chasalow of Brandeis University, who conceived the original "marathon" concept in conjunction with a music program for the 2000 Cyberarts festival.

With best wishes, Dennis Miller, Artistic Director 2007 Visual Music Marathon Professor, Department of Music Northeastern University

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Visual Music

A visual music piece uses a visual art medium in a way that is more analogous to that of music composition or performance. Visual elements (via craft, artistic intention, mechanical means or software) are composed and presented with aesthetic strategies and procedures similar to those employed in the composing or performance of music. This essay provides an overview of some of the key aesthetic strategies for using music constructs and music composition employed by artists, filmmakers and instrument builders from the absolute and abstract film and art traditions and the color organ traditions.

THE VISUAL MUSIC ARTIST

Today, technology provides the opportunity to create and mold parameters of image and sound in imagined and unimagined ways. A new type of hybrid artist who works across media and technologies is emerging. Walter Ruttmann foresaw this in 1919 when he remarked that technological progress would lead to the acceleration of the transfer of information between sound and image, leading to a "constant state of being swamped with material" and thereby to an altered state of perception. As a result of this, a "new, hitherto latent type of artist would emerge, approximately half-way between painting and music."¹ This is very much the case today: musicians and music composers can craft visual music compositions either with or for music, and artists and filmmakers can craft original music and soundtracks for their visual compositions.

The computer in particular has become an instrument for forging music and image connections. John Whitney Sr., whose work with filmmaking across three broad domains (optical to analog to digital), states, "Technical innovation is thus providing the means to begin a fine art for eye and ear." He adds, the "computer [is] the only instrumentality for creating music inter-related with active color and graphic design, and though the language of complementarity is still under-examined and experimental, it foretells enormous consequences and offers great promise."² The visual music practice of today is diverse and wide-ranging, assisted by computer and digital technology tools.³



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VISUAL CHARACTERISTICS AND MUSICAL CHARACTERISTICS

What are the visual characteristics available to the visual music artist that are akin to the musical characteristics available to the music composer? How are they used? There are the broad strokes and consideration of, for example tradition, style, time, structure, form, space, rhythm, duration, relations, harmony and gestalt. Then there are the more specific strokes of, for example, orchestration, phrasing, line, color, contrast, shape, pattern, repetition, consonance, dissonance, tone and dynamics. Added to this are the artistic style and intentions of the composer, where there is a consideration for the expression of concepts, ideas and emotions. The result is a visual artwork that exists in time and whose constituent elements evolve over time just as music elements exist and evolve over time. Some broad categories from which to examine visual music compositions are aspects of the language, grammar and syntax of music composition that are used in a similar manner, are shared in the visual domain or both. Artists, filmmakers, technicians, instrument builders and system designers seek their own connections between music and sound and use these parameters and characteristics of sound in different ways.

This section of the essay draws a path through historical works that connect images and sound with a view to bringing forward some of these connections. Notwithstanding the difference between the visual and sound mediums, the common ground with music in visual music work is a consideration for composition; it is in the composing part—the craft of creation—that there are resemblances to music composition. Each visual music artist has an idea and approach to working with his or her chosen visual material. The visual material is pliable and formless; it can be taken from many sources, just as contemporary music takes its sound material from many sources and shapes it in many different ways. What is most striking about visual music works, however, is that in order to put some shape onto this visual material, the focus has been on using concepts from music, focusing on the structures and language, yet reworking these concepts for a visual production. One of the common properties between music and moving image is the property of motion. All the artists and works discussed here consider motion in their work; at some level, the essence of visual music composition is this composition of motion.

Is it the case that a new grammar for a new art form, which the early pioneers of music and visual art, particularly those who worked with film had envisioned and sought in their works, is being created and continues today?

PAINTING ACCORDING TO A LANGUAGE OF MUSIC

The forms and language of music composition have been used by some painters, often in a metaphorical manner. They are also a source for creating a visual language that helps the artist construct images that focus on creating visual forms and translating concepts and structures of music into concepts and structures of the visual. The resulting imagery is often non-narrative, non-representational and abstract, bringing imagery into a similar position as music. The non-representational nature of music and its emotional expression is mirrored in the non-representational nature of the resulting imagery that also expresses and appeals to emotions. By exploring the visual with musical thinking, artists create new visual forms, new patterns

and new relationships between visual elements. Abstract painters such as Wassily Kandinsky (1866–1944), Paul Klee (1879–1940) and Roy De Maistre (1894–1968) worked with music concepts and ideas, translating them into their own ideas and principles for artistic practice.

Roy De Maistre, a musician turned painter, devised a system of color-music codes based on Sir Isaac Newton's theories of color and the correlation of colors to the seven pitches of the musical scale. The underlying assumption in his color-music codes was that "a mathematical relationship of frequencies [...] united the physical phenomenon of light and sound."⁴ De Maistre devised his color charts and aligned them to the white notes of the keyboard starting with the note A for the color red, and from this he created his color-music code of pitch correspondence to different hues. He used this color code and his pictorial composition aesthetic to compose his paintings. This can be seen in his painting *Rhythmic Composition in Yellow Green Minor* (1919). Interestingly, his later work focuses more on a chord-based, rather than a note-based color-music code.



Figure 1. Roy De Maistre, Rhythmic Composition in Yellow Green Minor, (1919), oil on paperboard, 85.3 x 115.3cm board; 89.2 x 119.4 x 4.4cm frame. Purchased 1960. Collection: Art Gallery of New South Wales. ©Caroline de Mestre Walker

Kandinsky was interested in the analogous relationship between music and painting. He recognized that there was an emotional appeal in abstract art as in music. His artwork imagery is like a counterpoint in music where there is interplay of form, color and expression. He had a structural method of composition.⁵ Judith Zilczer quotes Kandinsky from his book *On the Spiritual in Art*: "Color, which itself affords material for counterpoint, and which conceals endless possibilities within itself, will give rise, in combination with drawing, to that great pictorial counterpoint, by means of which painting also will attain the level of composition and thus place itself in the service of the divine, as a totally pure art."⁶ Kandinsky was influenced by the atonal music of composer Arnold Schoenberg and found the dissonance in atonal music to be comparable to the freedom and creative energy in his abstract painting.

Paul Klee's paintings, whose titles often refer to musical terms, used music as a framework with which to explore his artistic ideas. Unlike Kandinsky, Klee was interested in the traditional harmony and counterpoint of 18th-century music composition. The classical music period



developed disciplines and rules of composition across a range of forms and structures. Klee's interest in working with music structure was an important part of his painting composition. He used color to create harmony in his work, eventually focusing on working with the musical analogy of polyphony and counterpoint in his painting, transforming the formal elements of musical polyphony into an equivalent form of visual polyphony for his paintings. He was interested also in formulating a vocabulary of abstract art comparable to the rules and structures of music composition. One of his visual polyphonic methods was to overlay colors and intermingle shapes and forms to suggest polyphonic forms and create a rhythm and direction with pictorial elements.



Figure 2. Paul Klee, Static-Dynamic Gradation, 1923. © 2007 Artists Rights Society (ARS), New York/VG Bild-Kunst, Bonn

PRINCIPLES OF COUNTERPOINT—ORCHESTRATION OF FORM

Viking Eggeling and Hans Richter researched and experimented with the aesthetics of the visual and explored through their art new principles, technical devices and techniques to create non-representational works. One of their ideas was to explore the many visual forms of relationships that used the principle of the "equivalence of opposites"⁷; they approached this idea with the principle of musical counterpoint. This led to a number of drawings of "themes" or "instruments" consisting of the transformation of the contrasting relations of visual elements, which were orchestrated through different stages, bringing about a dynamic arrangement that they felt as being "the music of the orchestrated form." This can be illustrated in Richter's first scroll painting *Prelude* (1919), described as the orchestration of a theme developed in eleven drawings, which demonstrates such oppositions among the visual elements where "a vertical line was accentuated by a horizontal, a strong line connected with a weak one, a single line gained importance from many lines, etc."⁸

Eggeling and Richter made the unexpected discovery that elaborating the transformation of the visual relationships across the large elongated horizontal painting of the scroll forces a type of rhythmic expression into the painting which, in turn, creates a form of dynamic expression that produces a sensation for the eye as it transverses and memorizes the sequence of visual elements across the scroll.

ORCHESTRATION OF MOVEMENT

Eggeling and Richter realized that the kind of accumulated energy that took place in the orchestration of the visual forms across the scroll needed to be released into actual movement: "Movement implied film."⁹ Film was a new medium for them, yet each took the ideas and principles that he had used in his scroll paintings and worked with the constraints and potential of this new moving art medium. Eggeling continued to work with the orchestration of form and applied motion to the forms that he had developed for his scroll paintings. His visual forms for film were comparable to music instruments that now had their own defined ways of being articulated through different stages, with motion, over time.

This availability of time and continuity through the medium of film brought to full realization the release of the movement that had accumulated in the scrolls. Eggeling's forms still retained what Richter calls their "graphic elegance." In his film *Symphonie Diagnonale* (1924, first publicly shown in May 1925 at the Absolute Film Show in Germany), the graphical lines and shapes that appear and disappear, evolve and transform over time were created using paper cutouts and tin foil figures that were photographed one frame at a time. *Symphonie Diagnonale* has a tremendous musical feel to it, in its use of rhythm, motifs, themes and forms. The film has no soundtrack, but it has the most evocative musical quality to it. The animation of the visual elements of line, figure and shape brought about rhythmic sequences and a sense of dynamics in the progression of these rhythmic figures. Visual "instruments" could now evolve, transform and progress in visual rhythmic sequences.

These parameters of "instruments," rhythm, dynamics, figures and shape are analogous to the parameters of rhythm, pitch, phrasing and timbre available to music composition. In abstract animation, the now hard-to-define artist could compose his or her animations like musical compositions, orchestrating the visual elements, creating motifs and repetitive elements, transforming a visual element's shape over time, and creating a sense of harmony and symmetry in the use of screen space and screen time. All the non-representational strategies for composing music were now available to the abstract filmmaker.

ORCHESTRATION OF TIME

Richter realized that time was the basis of this new art form. Continuing from his ideas about counterpoint and the equivalence of opposites, Richter moved his focus from orchestrating form to orchestrating time relationships. "The simple square of the movie screen could easily be divided and 'orchestrated.' These divisions or parts could then be orchestrated in time by accepting the rectangle of the 'movie-canvas' as the form element. Thus it became possible to relate (in contrast-analogy) the various movements on this 'movie-canvas' to each other—in a formal as well as a temporal sense."¹⁰

Richter's first abstract film, *Rhythmus 21* (1921)¹¹, is an excellent example of his ideas about time relationships. The screen being the form of the image is most interesting. The visual forms that are created for the screen exhibit two main properties: the static visual composition of each frame of the screen and the temporal composition of both the screen image and the visual



forms in the screen image over time.

Expressive Moving Paintings and the Composed Score

Walter Ruttmann's *Lichtspiel Opus I* premiered in Germany in 1921, the first abstract film to be publicly screened. In the film, Ruttmann mastered the technical means to realize his abstract imagery in film. He patented his particular technical methods in 1921. Dr. William Moritz provides an interesting description of his method: "[Ruttmann's] first animations for *Opus No.* 1 were painted with oil paints on glass plates beneath an animation camera, shooting a frame after each brush stroke or each alteration because the wet paint could be wiped away or modified quite easily. He later combined this with geometric cut-outs on a separate layer of glass."¹²

Ruttmann's visual style is considered to be more expressive than Eggeling and Richter's and overall has a painterly feel to it both in technique and in the use of screen, color and movement. Indeed, his technical methods are also painterly and would have had a definite bearing on the resulting imagery. His Opus films have been described as paintings that move in time. While Richter and Eggeling focus on figures, forms and time relationships between visual elements, Ruttmann focuses on a more expressive visual aesthetic for his imagery. He exploits "movement and color to create choreographies, where entrances and exits, collisions and complementary trajectories establish a linear, cumulative scenario or development in which new configurations, colors and shapes appear right up to the last moments of the film."¹³ And he uses color as an element in the choreography that helps not only to structure the film and "differentiate certain shapes, movements or repetitions, but [also] sometimes to establish general mood or atmosphere."

Ruttmann also envisioned his *Lichtspiel Opus I* film to be closely related to music and commissioned the composer Max Butting to compose a string quartet for it. In the music score, Ruttmann provided many indicators for the musicians to ensure that the music synchronized precisely with the visual elements of the film.

COLOR SINGS-COLORED RHYTHM

Léopold Survage (1879–1968) connected his ideas about color with music and foresaw the potential of film to bring forth his ideas about color—color and rhythm in particular. Because sound is the primary element of music and color is the primary element of painting, he believed that when rhythm by means of movement is applied to color, the resulting colored rhythm becomes an abstract form that is superior to the use of color in static painting and is more like music. Color sings because it is in rhythmic motion; the principle of mobility brings forth the rhythmic motion.¹⁵ The alternating series of color that occurs when color and rhythm is realized with motion can exert a psychological influence on us similar to the way the alternating series of sound in music exerts a psychological influence.

Survage conceived that rhythm existed independently of color, but that through the mobile animation of color, rhythm could be captured and aesthetically harnessed and a colored rhythm would result.¹⁶ He conceived that the film medium could be the means for providing the mobile

animation of this colored rhythm. Survage prepared a series of drawings, his *Colored Rhythm: Study for the Film* (1913), for the purposes of having them realized in film. Unfortunately, not being able to secure the funding or a patent for it, Survage never made the film. Nevertheless, the individual pictures for this film and the idea of using film or cinema to realize the movement of these stills were in place by 1913.

Similar to Richter and Eggeling, Survage recognized that time was the necessary component to bring forth, in particular, the dynamics of rhythm and movement of visual elements. His intended film *Rhythme Colore* and his series of drawings for the film didn't simply illustrate or interpret music; rather, he believed them to be an autonomous art, based upon the same psychological premise of music. It is the "mode of succession of their elements in time which establishes the analogy between music, sound rhythm, and that colored rhythm of which I am announcing the realization by means of cinema."¹⁷ His color was an essential part of his pure abstract image aesthetic.



Figure 3. Léopold Survage, Colored Rhythm: Study for the Film (1913). © 2007 Artists Rights Society (ARS), New York / ADAGP, Paris

Composing Motion—Figures of Motion

Eggeling, Richter, Ruttmann and Survage all came to the realization that motion was needed to fully realize their visual esthetics. Their works and ideas crossed the "glistening bridge" from still to moving art, as Survage had foreseen in the medium of film.¹⁸ Len Lye (1901–1980), a kinetic artist and filmmaker, was interested in the kinetic potential of visual forms for film, which he perceived to be like music. He worked with the techniques of direct film and color processes to create films that enhanced the kinetic and motion potential of imagery. He identified his visual forms, which were often set to jazz-calypso music, as being like figures of motion. Composing visuals set to music was a task in composing motion, a task similar to that of the music composer who composes music.

Len Lye discovered the potential of composing with motion. "If there was such a thing as composing music, there could be such a thing as composing motion. After all, there are melodic figures, why can't there be figures of motion?"¹⁹ His film *A Colour Box* (1935) is the first film in



which he painted and scratched directly onto the filmstrip, creating a visual mass of complex and jumbled movements. As one commentator notes: "This creates a sense of off-screen space, as if the patterns are streaming in and out of the frame. Also, the dynamic abstract shapes seem to dance to the popular Cuban music that was used as a soundtrack. Lye used the soundtrack as a creative base by associating particular shapes with certain sounds, so that there is a loose relationship between sound and image."²⁰



Figure 4. Len Lye, film still from A Colour Box, 1935, GPO film unit. Courtesy of the Len Lye Foundation, Govett-Brewster Art Gallery.

Music and Image Synchronization—Acoustical Laws and Optical Expression

Oskar Fischinger (1900–1967) saw the first performance of Walter Ruttmann's *Lichtspiel Opus* 1 in 1921 and as a result was inspired to work with the absolute cinema of abstract filmmaking and synchronized music.²¹ Music was used in his films to make the absolute nature of the visuals more understandable. As William Moritz explains, "In the spirit of non-objective art, he [Fischinger] maintained, correctly, that his films were absolute experiences in and of themselves, not representations of some other object or experience."²² However, even when the music would suggest a flow or structure for his film, his visual compositions were composed carefully to "represent visual structures and dialogue with some sort of meaningful conclusion."²³ For example, in his Studies series of films, started in 1929, he explores in each film a specific visual task. In *Studie No. 9*, for example, he explored streaking afterimages, which were also explored in several other Studies films.²⁴

Visual Music Composition, continued



Figure 5. Still from Studie nr. 7, 35mm film by Oskar Fischinger, 1930-31, b/w, sound. © Fischinger Trust, courtesy Center for Visual Music

Music adds another dimension to Fischinger's films, where the tightly synchronized non-representational graphics and music appeal directly to the feelings of the viewer. "*The flood of feeling* created through music intensified the feeling and effectiveness of this graphic cinematic expression, and helped to make understandable the absolute film. Under the guidance of music, which was already highly developed, there came the speedy discovery of new laws—the application of acoustical laws to optical expression was possible. As in the dance, new motions and rhythms sprang out of the music, and the rhythms became more and more important."²⁵ By focusing on the rhythm and dynamics of the music to enhance the experience of the abstract elements, the visuals and the music at times seem to fuse. The rhythm and the dynamics in each medium have a togetherness and unity.

Fischinger selected music from classical and jazz traditions for his music and image films. Some of the music tracks were chosen by his patron, Baroness Rebay. For example, Rebay commissioned Fischinger to create a film using Bach's *Bradenburg Concerto No.* 3, which resulted in *Motion Painting no.* 1 (1947).

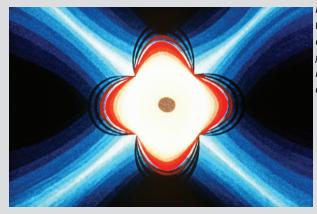


Figure 6. Still from Motion Painting No. 1 (1947) by Oskar Fischinger, 35mm film, color, sound.© Fischinger Trust, courtesy Center for Visual Music



Fischinger was an innovative and versatile filmmaker and inventor. In his work, he straddles several visual music traditions and filmmaking techniques, even inventing his own devices to realize his ideas. He invented the Lumigraph, a device to perform color, and a wax-slicing machine, which he used to create a temporal transformation of both soft and hard geometric imagery for his films. (He also built one for Walter Ruttmann.)²⁶ He created synthetic sound by modifying a camera that was able to photograph his ornament drawings and other geometric shapes right onto the film's soundtrack. His *Ornament Sound* (1931) was able to turn his visual shapes into actual sounds.²⁷

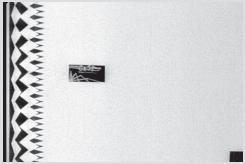


Figure 7. Still from Ornament Sound, 35mm film by Oskar Fischinger, c. 1932, b/w, sound. © Fischinger Trust, courtesy Center for Visual Music

Synthesis—Simultaneous Composition of Sound and Image

The Whitney brothers, John Whitney Sr. (1917–1995) and James Whitney (1921–1982), sought to bridge the gap between animation and sound and their actual realization.²⁸ They were interested in the combination of graphic arts and music and in building devices to realize the synthesis of music and image. An important part of their method was to meticulously plan, compose and score their films and investigate the "complementarity" of music with filmmaking. However, in order to do this, they departed from looking at the cinematic potential and focused more on methods to create a more simultaneous composition of sound and image and a more immediate rendition of the temporal dimension of sound and image. They also strove to create a more instantaneous harmonic union of abstract art and music.²⁹

The Whitneys were influenced by the music of Schoenberg and in particular Schoenberg's twelve-tone system of music composition, for example in composing the films *Catalog* and *Arabesque*.³⁰ In 1975, John Whitney Sr. invited the contemporary visual music computer animator Larry Cuba to be the programmer on *Arabesque*. Like Schoenberg reducing music to the serial row, the Whitney brothers reduced the image "down to its most fundamental state—essentially a point of light, which could then be ordered like a tone row."³¹

While working out the ideas for his visual music artworks, John Whitney Sr. simultaneously created the equipment, at first optical, then analog and later digital (the computer), to implement them in both his and some of James Whitney's films.³² For example, he developed one device that consisted of an optical printer and another that used a system of pendulums to photograph and control the light to expose areas of the soundtrack. This allowed him to create sounds directly on the soundtrack section of the film, "translating oscillations into synthetic sounds of various frequencies and timbres," and enabled him and his brother "to compose sound and image simultaneously."³³ The devices were used to create the early films *Five Film Exercises* (1943–1994) by John and James Whitney.

In 1958, Whitney Sr. designed his mechanical analog cam machine, which was used to create the visuals effects for *Catalog* (1961). It was also used by James Whitney for his beautiful *Lapis* film (1963–1966). Whitney Sr. soon embraced computer technology and the graphic potential of computer technology, developing computer programs that synchronized computer-generated graphics with music. His Whitney-Reed RDTD (Radius-Differential Theta Differential) composing program was used to generate imagery from sound oscillations. He used his RDTD software to produce his film *Permutations* (1968).

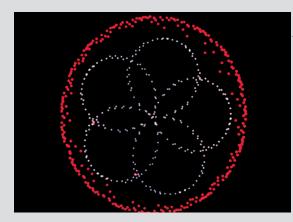


Figure 8. Permutations, John Whitney, Sr. 1968. 16mm, color, sound, 8 minutes. Estate of John and James Whitney, USA. ©2007

Whitney Sr. made several discoveries about the connections between music and filmmaking. In 1975, he discussed the temporal dimension of art, using the term "computational periodics" while exploring the periodic nature of the visual and sound domains.³⁴ In 1994, he used the term "complementarity" to describe the power of computer technology. "A major art form based on a common foundation of harmony is developing that intertwines color with tone in a complementary bond. I call this associative relationship a 'complementarity.' For the first time, one can design and execute visual and musical patterns in an inter-reactive form of temporal union."³⁵ Another discovery that Whitney made was that action and harmony shaped his audio-visual work. Like other abstract filmmakers, Whitney recognized that his aesthetic and in particular his focus on actions had an impact on emotions. "Fluid, orderly action generates or resolves tensions much in the manner that orderly sequences of resonant tonal harmony have an impact on emotion and feeling..."³⁶



INSTRUMENTS AND SYSTEMS TO PERFORM IMAGE PARAMETERS

Visual music performances are realized with physical instruments that are played in a manner analogous to a musician playing a music instrument or, increasingly today, with a more systems approach. In the latter, a variety of computer technologies and mechanical devices (if necessary), both hardware and software, are used to create a mixture of real-time controllers both physical and virtual that drives the live performance of images and sound. Recent contemporary artists such as Golan Levin, Fred Collopy, Robert M. Fuhrer, Roger B. Dannenberg, Sydney Fels, Kazushi Nishimoto, Kenji Mase and Frank J. Malina have developed systems to generate visuals in real time.³⁷ Toshio Iwai's installation *Piano ~ as image media* (1995) provides an interesting interface in which the visual element, light, plays the music element, a piano. However, as in all good music performances, the composition and the artistic strategy are as important as the performance strategy, as are the aesthetic and technical connections sought between music and image parameters.

This section of the essay will provide an overview of some of the color and sound correlations that have been used to create instruments to perform color. It will examine representative examples from the very early color-organ traditions.

The Correlation of Color to Music Tones

The theories of color from the late 18th century and early 19th century influenced the plethora of color organs that were built in the late 19th and early 20th century. It was believed at the time that light and sound were physically similar. Sir Isaac Newton in his *Opticks* (1704) was "the first to observe a correspondence between the proportionate width of the seven prismatic rays and the string lengths required to produce the musical scale D, E, F, G, A, B, C."³⁸ Newton devised a correspondence of relative widths of the color spectrum to the successive notes of the music scale. His correspondences of color to music tone were: red to C, orange to D, yellow to E, green to F, blue to G, indigo to A and violet to B.

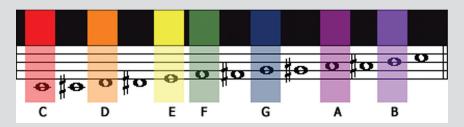


Figure 9. Graph of Newton's color scale.

"INSTRUMENTS TO PERFORM COLOR-MUSIC"39

The color-to-music tone correlation that was apparent in Newton's correspondences provided the inspiration for a "widespread interest in a viable color-transmission instrument that could be operated from a musical keyboard."⁴⁰ Several instrument builders did just that by build-ing keyboard instruments to perform color (with or without sound capabilities) in a manner

analogous to the performance of music. Interestingly, color-organ builders devised their own variations of Newton's correspondences by creating their own color-music scales as well as discovering how best to present the colored-light performance. For example, Bainbridge Bishop noted that when he experimented with building a color organ, he found "that a simple color did not give the sensation of a musical tone, but a color softened by gradations into neutral shades or tinted grays did so; also, that combinations of colors softened by gradations into neutral shades or tinted grays, with the edges of the main colors blending together, or nearly together, rendered the sensation of musical chords very well indeed."⁴¹

COLOR MUSIC SCALE—A HARPSICHORD FOR THE EYES

Louis-Bertrand Castel (1688–1757) adapted Newton's correspondence of the relative widths of the color spectrum to the successive tones of the music scale into his own color-music scale. Castel devised a color-music scale: twelve colors to twelve music tones. The note C was correlated to red, moving up to the note B, which correlated with indigo.⁴² Castel demonstrated his scale by adapting a harpsichord so that "the pressing of the keys would bring out the colours with their combinations and their chords; in one word, with all their harmony, which would correspond exactly to that of any kind of music."⁴³

Castel built his harpsichord in 1734 and called it the *Clavecin Oculaire*. This color organ consisted "of a 6-foot square frame above a normal harpsichord; the frame contained 60 small windows each with a different colored-glass pane and a small curtain attached by pullies to one specific key, so that each time that key would be struck, that curtain would lift briefly to show a flash of corresponding color."⁴⁴

Castel was also interested in emulating the experience of participating in a musical performance, an idea that precedes the building of his organ. In 1720 he wrote "Can anyone imagine anything in the arts that would surpass the visible rendering of sound, which would enable the eyes to partake of all the pleasures which music gives to the ears?"⁴⁵



Figure 10. Graph of Castel's color scale.

PAINTING MUSIC-HARMONIOUS COLOR

Theamerican inventor Bainbridge Bishop (dates unknown) was interested in working with color harmonies. One of his methods of creating harmonic colors was to apply the intervals and harmony of music to the visual domain. However, as he says in his own writing, he also became



"dominated with the idea of painting music."⁴⁶ Working out a way to create harmonious color in an analogous manner to harmonious music was one of his goals. "The natural harmonic chord of light, as illustrated by the rainbow, shows red as its fundamental or keynote; for this reason I think we should take C, the key-note of the natural scale. It will be observed that its dominant is greenish-blue, its subdominant yellow-green. The greens of nature seem to make up combinations and masses of greens inclining to these two hues. A pure crude green seems to be out of place in a landscape, and, if seen, it generally produces a harsh and discordant effect."⁴⁷

Bishop set himself the task of constructing "an effective and practical mechanism which would play colors and music together." His color-to-pitch correspondence was based on correlating color to the chromatic musical scale.

After several attempts and experiments, Bishop built a color organ in 1877. An interesting feature of his model was his use of glass to diffuse light.⁴⁸ Bishop also provided stops and pedals in his color organ that "could be used by the musician, at will, to aid the expression of the sentiment of the music."⁴⁹

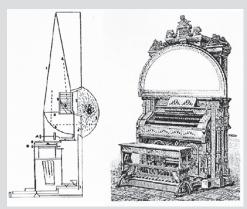


Figure 11. Model and exterior color organ, Bainbridge Bishop, A Souvenir of The Color Organ, with some suggestions in regard to The Soul of The Rainbow and The Harmony of Light, 1893⁵⁰

MOBILE COLOR

Alexander Wallace Rimington (1854–1918) invented a more responsive device to perform color, using electricity to power a system of color filters and arc lamps. It was built in 1893 and was named the *Colour Organ*. As Peacock notes, "this name has become the generic term for all such devices designed to project colored light."⁵¹

Rimington presented a paper about color music⁵² at St. James's Hall on June 6, 1895 and in 1911 wrote a book, *Colour-Music: The Art of Mobile Colour*.⁵³ He believed that physical analogies existed between sound and color. His color-music scale was based on dividing the light spectrum into intervals of the same proportions that occur in the musical octave, therefore, "the ratio between two light waves approximated that for a corresponding interval in sound."⁵⁴ Each octave then contained the same colors. "The registral placement of colors was directly proportional to saturation, i.e., higher octaves contained more white light,"⁵⁵ with saturation becoming the main source of distinguishing the octaves. Rimington's color organ could not simultaneously play color and sound. However, he did recommend it to be played with sound-producing instruments.



Figure 12. Exterior of a Color Organ, Alexander Wallace Rimington, Colour-Music: The Art of Mobile Colour (London, 1912)

Rimington foresaw his color organ as allowing standard musical works to be played and expressed in color. He hoped that composers would in the future write their scores in dual form, composing both a music score and a score for light effects. The composer Alexander Scriabin (1872–1915) included a part for colored light in his score for his music composition *Prometheus, Poem of Fire* (1911). This was notated at the top of the score. The first performance of *Prometheus* with color realization took place in New York in 1915. The colored-lights part was played on a color-projection device called the *chromola*, a device similar to Rimington's color organ.⁵⁶

Lumia

Rather than focusing on theories of color and sound correlations, Thomas Wilfred (1889–1968) focused on light alone. He believed the art of light to be a new art form, which he named lumia and in 1922 built an instrument called *Clavilux* to realize his ideas. In addition to pure light manipulation, *Clavilux* allowed for elements of time and rhythm to be articulated in live performance.⁵⁷ This is apparent within the controls of the instrument, which consist of keys that are organized into three groups: form keys, color keys and motion keys.⁵⁸ "A neutral white beam of light of great strength is intercepted by an arrangement of lenses and built into form through the form keys. The form, or forms, are made to move rhythmically by means of the motion keys, and either one color or several in any combination are finally introduced from the color keys. The whole instrument is played from a notation book so that any composition can be duplicated exactly, with a margin for personal interpretations by the playing artist."⁵⁹

Wilfred composed for the Clavilux and notated his compositions. "A Wilfred Lumia work is a composition of light, color, and form which changes slowly with time. It exhibits a very wide



range of light intensity and a broad spectrum of delicate colors and shapes."⁶⁰ Between 1924 and 1925 Wilfred played numerous worldwide lumia recitals. In 1930 he founded the Art Institute of Light for research into lumia and his new art form of light.



Figure 14. Scrapbook page with a small published drawing of the Clairol lobby and an unidentified photograph. Source Thomas Wilfred Papers. Manuscripts & Archives, Yale University Library.

Figure 13. Thomas Wilfred at Clavilux keyboard, Grand Central Palace, New York, NY. Source: Thomas Wilfred Papers. Manuscripts & Archives, Yale University Library.

COLOR PROJECTION INSTRUMENTS

Peacock notes that since 1920, many color projection instruments and devices were invented.⁶¹ For example, Adrian Klein's color projector for stage lighting (1920), Achille Ricciardo's *Teatro* del Colore, the composer Alexander Laszlo's Sonchromatoscope (1925) and Ludwig Hirschfield-Mack's Shadow Plays (1920–1925). From the 1930s, many artists experimented with interpreting music in colored light. Peacock discusses George Hall's Musichrome (1930s), Frederick Bentham's *Light Console*, Christian Sidenius's *"Lumia, Theatre of Light"* concerts and Bulat Galeyev and the use of his color instruments to present huge outdoor spectacles of sound and light. Interestingly, composer Alexander Laszlo commissioned filmmaker Oskar Fischinger to arrange a film projection with Laszlo's later color-light-music concerts. "Oskar edited together footage from several of his earlier experimental films, arranging them for five 35mm projectors, three side-by-side to form a triptych, and two overlapping these to provide additional color effects. Painted slides were also used to blur the edges of the projections." However, Fischinger is not usually credited in the program. Fischinger re-created his "multiple-projector performance several times, including a piece titled Fever I II III which reportedly had a musical score composed by Erich Korngold, and a screening at the prestigious Munich State Theatre in 1927, with the title *R-1, a Form-Play*, using a percussion ensemble as the music (which could drown out the noise of the several projectors)."62

SUMMARY

Visual music can take two strands in its manifestation as an art medium. It can focus on the craft of composition—working with visual elements over time to be realized as a fixed-media video or film projection. Alternatively, visual music can focus more on the performance aspect,

an improvisational approach or both, and hence focus more on the realization of visuals elements via mechanical or generative means into a non-fixed media that exists mainly in its performance; the craft in this case often involves considerable technical skill in building a system or item that can realize a visual music in a real-time setting.

This essay explored some of the pioneering efforts of filmmakers from the absolute and abstract filmmaking traditions from the 1920s onward as well as the inventors of devices to compose or perform visuals like music from the late 19th century. Their efforts provide us today with much inspiration. What are of interest is how they sought connections between music and image, how this influenced their aesthetic strategy and how they realized their music to image ideas in their work. The essay focused on bringing forth the nuances of taking a visual music composition approach to draw out the manner in which visual music is about composition and the esthetics of composition; it also considered the influence of color to music correlations that inspired artists to build instruments to perform color and use light as a means of composing color harmonies analogous to music harmony. These pioneers provide us with the origins of a grammar for working with the complementarity of music and image. This grammar of visual music continues to develop today as more artists, filmmakers and composers work with the complementarity of music and image and develop their methods for seeking out that complementarity.

Essay written by © Maura McDonnell, 2007

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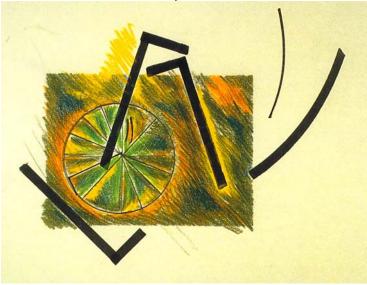
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Abstraction | Animation | Music

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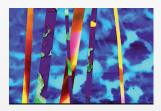
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Time Streams, 2003 5:34



add.value 5 more, 2006 5:29

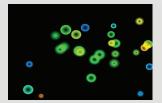


Navigating the Pearl System, 2006

2:43



Dissonant Particles, 2005 7:03



Stephanie Maxwell, images Allan Schindler, music USA sampph@rit.edu www.rit.edu/~sampph www.ecmc.rochester.edu/allan/

Time Streams is a collaborative work by the animator (Stephanie Maxwell) and the composer (Allan Schindler), from concept through realization. The spiral-like structure and unbroken momentum of this film/music composition are somewhat suggestive to the artists of intersecting streams (or 'ribbons') of time. The concept is not simply the familiar (although perhaps illusory) forward, linear, march of clock time, but rather a nexus in which backwards time (e.g., dreams, recollections and deja vu), parallel temporalities, and the non-continuous splicing together of segments of time are equally prominent. The visuals are animations and manipulations of hand-painted 35mm motion picture film, small objects, copier art, and liquid mixtures that are extensively interwoven and layered in digital post production. The principal sound sources of the music are generic samples (digitized recordings of instrumental and vocal tones and of environmental sounds such as ice cubes and ping pong balls). However, in resynthesis the spectral structures (tone colors) of these sounds often have been retooled and their attack and decay articulations have been altered.

Gerhard Daurer

Austria geadsch@controverse.net geadsch.controverse.net

add.value is a performance instrument that allows the creation of dynamic imagery and sound in realtime. The sonification and visualisation are triggered by a physical model that is manipulated by the performer. Consequently every single change in the visual domain is also reflected in the aural domain, and vice versa. The visualization is no simple illustration of the sounds – the visual and the aural are entwined from the outset as they originate from the same source. The aim is to present a system that generates audiovisual output that appears somehow 'alive' in its very own abstract world.

Fran Hartnett

Ireland franhartnett@gmail.com

This work explores a variety of relations between an abstract electronic soundtrack and a sequence of imaginary landscapes. The music and the visual elements in this piece were developed in parallel - a method which led to an interesting dynamic where sometimes the visual movements inspire the music, whereas at other times the musical content is the element that controls the visual motion. I am interested in developing this relationship between music and moving image that sees a blurring of the boundaries between sight and sound, into a state where the communication between visual object and musical form is perceived to run both ways.

Gordon Monro

Australia gordon@gommog.com www.gommog.com

Dissonant Particles is an abstract animation. Psychoacoustic experiments have indicated that when two pure sine tones are played simultaneously, they will sound most dissonant when they are around a semitone apart in pitch. In Dissonant Particles, each particle emits a sine tone. The dissonance between particles acts as a repulsive force which pushes them apart, both in position and in pitch. There is also a long-range ("cosmological") attractive force which prevents the particles from flying off to infinity. The particles pulsate and slowly evaporate; both of these processes affect the way they "feel" the forces

acting on them. The colour of a particle indicates pitch: red for low pitches, green for intermediate, and blue for high. The camera tracks one particle, which is always shown in the centre of the screen.

I Haven't Read a Book in at Least Five Years, 2007 2:51

undulation, 2006 3:47



Static Cling, 1999/2000 7:41



Afterlife, 2006 2:40



donebestdone

USA info@donebestdone.com www.donebestdone.com

This piece was originally composed for the Minneapolis Public Library, which recently opened a gallery space at their brand new building. This piece was composed entirely from pictures of the library itself. Hundreds of photographs were taken of the building and its contents. Interesting shapes and objects were then cut out, animated, and fit to original sounds and music. Every individual visual element has its own audio equivalent. And in case you were wondering...the library rejected our submission!

Harvey Goldman, images James Bohn, music USA hdcoolman@comcast.net harveygoldman.com

Undulation is a study of cadence, meter, oscillation, palpitation, pressure, and pulsation. The piece represents an attempt to amalgamate, provoke and energize abstract imagery with abstract sound.

Bill Alves

USA alves@hmc.edu www2.hmc.edu/~alves/

I have been interested in the resonant patterns that emerge from the chaos of our world, in the same way in which you can start to see interesting patterns and shapes in the static screens of interstation tuning. In this piece, I have used a computer to transform the sounds of the nightly ritual chaos of local news broadcasts into abstract timbres and static images into patterns of visual resonance (inspired by my association with computer animation pioneer John Whitney, Sr.). In both cases, the patterns are based on harmonic proportions, known in musical tuning as just intonation. The computer allows me to create tunings which are not fixed, but vary according to the musical context. With this "free style" just intonation, I was able to create various tunings based on the harmonic and sub-harmonic series, contrasted in ways that reflect the transformation of the images. *Static Cling* was created on the Macintosh with Csound computer music language and POVRAY computer animation language. The music and images were composed in tandem.

John Banks, images Fritz Heede, music USA jsbanks42@yahoo.com artekimages.com

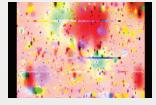
Afterlife is from the Computer Animated DVD "Illuminated Manuscripts." *Afterlife* is a progression into spirit sites deep in the woods, using the music as the key to the unfolding changes. The visuals were designed to give body to the wonderful piece of music by Fritz Heede. John S. Banks (Visuals) and Fritz Heede (Music) have been working on projects together for nearly ten years.



Graveshift, 2004 4:55



Memory of the Tape, 2007 3:50



Seek Assistance, 2005 3:03



After you were gone, 2005 4:19



Continued

Arie Stavchansky, images Per Bloland, music USA bloland@stanford.edu www.stanford.edu/~bloland/

Through a rain-streaked café window, surveillance of a street scene is digitally transformed into a fluid chaos comprised of paranoia, ghostly figures, and alterations of reality. Echoes of a forgotten song float above the milieu, now gaining, now loosing coherence. It is an image plagued by distortion, but this distortion emerges from quietness and recedes once again into the same. *Graveshift* was conceived as a cross-discipline collaboration including video, and live dance.

Damir Cucic, images Erich Maria Strom, music Slovenia damir.cucic@zg.t-com.hr

Memory of the Tape is a trip through the micro world of the digital recording. During the years spent in the editing room, the author has collected a certain amount of digital garbage from different tapes. Another author has, in the course of his work, collected a large amount of audio garbage. The two dumpsites are the audio essence of an abstract visual attraction.

Vishal Shah, images Adam Stansbie, music United Kingdom info@vishalshah.co.uk www.vishalshah.co.uk

Seek Assistance is an aesthically dark myth projected as noise and interference which intensifies with intrigue and mystery. The delicate investigation of micro materials is echoed by intricate lighting effects that appear to print the subject upon one's eye. This micro interplay between sight and sound firstly illuminates the subject, yet hints at macro forms that exist past the light, beyond any sound, and ultimately transcend the physical frame. *Seek Assistance* takes us to the starting point of a tube journey when our valid ticket is rejected. The system refuses to allow our passage. This is a work composed out of sharp and exact editing, distinct configurations of abstract light, form and image within the suggestion of a narrative collision. Visually there are strong hints of early modernist cinema and photography, Man Ray, Rodchenko and Moholy Nagy appear as reference meeting visual forms that derive from a fast world of commercial video. We are left in a state of an in-between of passage, combined with interruption and detour. This is the place that a subject might either be composed or undone.

Freya

England Freya128@yahoo.com http://freya.atspace.com/

After you were gone was created using the famous Fisher Price pxl 2000 camera! Dancing granular fragments of light. The hidden things are revealed. Light and darkness.

24

KAKANIA, 1989 4:00



Quadrangle, 2006 2:38

Karen Agua, images Karlo Takki, music

USA aquak@att.net aquak.home.att.net

A striking blend of music and image, contrasting the tension and chaos of modern urban life with the ritualized order of tribal societies. "A jubilant animated short filled with primitive tribal motifs and spiky, witty suggestions of conflict and strife," Janet Maslin, New York Times. Music performed by the band Skin.

Philip Sanderson

United Kingdom ps@psouper.co.uk www.psouper.co.uk

A square dance in which random musical sequences auto-choreograph the movements of a white sqaure, causing it to contract, expand, rotate and generally cavort around the screen.

Barry Moon

USA Barry.Moon@asu.edu www.barrymoon.net

Clicks & Tones is a meditation on the nature of the audio click. According to Fourier analysis, the single-sample click contains the entire audio spectrum. How can something so simple be, at the same time, so complex? The video also comes from very simple origins: a single-pixel-wide line across the center of the screen. Both the click and line were transformed in real-time using the QWERTY keyboard and a Wacom tablet.

Rupture, 2005 3:17

Jean Detheux, images Jean Derome, music

Belgium - Canada jeand2@mac.com



This short abstract film, full of dark undertones, comes like a fleeting dream, where forms appear and disappear like ghosts in the midst of nocturnal chaos. It was created with an inventive use of digital technology and grew out of an unusual process of interchange between the painter Jean Detheux and the composer Jean Derome. The result is a rare meeting of images and music. Along with *Liaisons*, the film which precedes it, it constitutes a sort of diptych.



Clicks & Tones, 2006

2:57



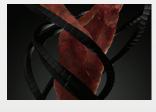
Poesia Opus 42 (Poetry Opus 42), 2002

3:52



Discord: metal and meat, 2006

5:08



Continued

Alexandre Milagres, Adilson Silvestre, Odon Vascon, images Felipe Rossi, music Brazil alexandrebh@yahoo.com

Concrete poetry, discrete in your folds. This Poetry tries to write between the lines what is so far.

Stephan Larson

USA stlarson@nmu.edu art.nmu.edu/larson/diversions

Discord: metal and meat is an abstracted story about conflict between forces, whether they are literally metal and meat or more symbolically perceived as man and nature. In such an uncomfortable conflict, one force can overwhelm another for a time, but inevitably the opposing force will regroup, coalesce, and renew the fight.

Rain, 2005 3:34



I've got a guy running, 2006 7:12



Rebecca Ruige Xu, images YanJun Hua, music USA RebeccaXu@MissouriState.edu http://art-design.missouristate.edu/xu/ rain/

In *rain*, I intend to reveal the tension underneath the seemingly peaceful and harmonic surface of rain, a common phenomenon everyone is familiar with. The music I chose is called Da Lang Tao Sha (*Great Waves Washing Away the Sand*), a Chinese classic composed by YanJun Hua (1893-1950) who was a legendary blind musician. The instrument is Pipa, a fretted lute with four strings, known for its frenetic and dramatic style and often used to depict battles in history vividly. The visual style of *rain* is inspired by Chinese watercolors; computer programming (C + OpenGL) generated animation is used to interpret the motion of falling rain. Raindrops are reduced to simple geometric forms, in the hope of forcing the viewers to pay attention to the building up and releasing of the immense tension within the raining process.

Jonathon Kirk

USA j-kirk@northwestern.edu www.quadrahex.com

i've got a guy running uses a source video from military combat footage of the Iraq war released by the U.S. Department of Defense. Made from digitally processed video and audio, the piece explores the contention that war is becoming a purely visual phenomenon. Simulation, media distortions, simultaneity, and the emergence of high-speed, ephemeral technologies have permanently changed the experience of the horrors of war except, of course, for those wounded or killed.

variazioni, 2001 3:18

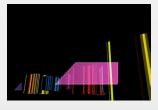
Adriano Abbado

to each other.

Italv adriano@abbado.com



Chronomops, 2005 2:00



Tina Frank, images General Magic, music Austria http://www.frank.at/

Tina Frank's Chronomops opens doors to truly different dimensions: different than digital art's reductionist studies so common today, different than the serially laid out minimalist images, and different than the omnipresent filtering and layering experiments.

variazioni features three-dimensional objects and stereo sounds set in relation

Chronomops opens up a shimmering, colorful space that is simultaneously an excess of color, frenzy of perception, and pop carousel. An abstract architecture of vertical color bars is set in endless rotation, whereby the modules and building blocks fly around themselves-and the entire system likewise rotates. The forced movement forms a digital maelstrom whose suction pulls the observer deep into it. (Christian Höller for sixpackfilm) Translation: Lisa Rosenblatt

Accompanied by the song Arirang, traditional Korean patterns appear and

Jun Won Kang, images Duk-soo Kim, music

Korea batcat@paran.com

4:00



a sudden change in the consistency of snow, 2006 8:00



Peter V. Swendsen

disappear.

USA swendsen@virginia.edu www.swendsen.net

a sudden change in the consistency of snow is an interpretation of that kind of early-winter snow that is almost sleet or hail, changing all the time, sometimes softening enough to bestow the lovely winter quiet that exists when everything is covered and dampened with snow, but other times quite hard and sharp and percussive as it bounces on frozen surfaces. As air and surface temperatures fluctuate, the falling water sometimes vacillates between textures in short spurts and sometimes slowly modulates in extended gestures. It can pound on your hood and resonate inside your head and then subdue its intensity to reveal a unique sonic spaciousness. Each element of the piece- saxophone, electronics, and video-traverses these continua of temperament, texture, precision, and expansiveness. As is the case with snow itself, stillness is rare and momentary up close, but very much present on the whole. The piece was composed during the winter of 2005-06. Special thanks to Michael Straus, for whom the piece was composed, and who premiered it in March of 2006.

Arirang, 2000



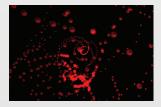
Whirlitzer, 2006



Color Dream No. 246, 2006 2:46



O (Circle of Life), 2004 6:00



La Zarabanda, 2003 3:21



Continued

Nick Fox-Gieg, images Margaret Schedel, music

USA gem@schedel.net fox-gieg.com, ksense.org

This short video is a collaboration between Margaret Schedel and Nick Fox Gieg, inspired by the motion and sound of the earliest automatic music machines: player pianos and music boxes. The piece was shot at the Musée Mécanique in San Francisco, one of the world's largest privately owned collections of mechanically operated musical instruments. Fox-Gieg compressed twenty minutes of footage into a single minute of animation, using a modern version of an old optical trick called "slit-scanning." Schedel's sound took the opposite approach, creating one minute of music using a feedback algorithm applied to a single three-second recording of a music box. Schedel and Fox-Gieg have

Michael Theodore

USA michael.theodore@colorado.edu http://spot.colorado.edu/~theodorm/

Color Dream No. 246 is an attempt to share a recurring (and usually nocturnal) revery, in which I often imagine myself adrift in an enveloping sea of colors-a timeless realm where hues are constantly in motion in a cascade of continuously transforming texture and shape.

Keum-Taek Jung, images Christopher Brakel, music USA keumtaek.jung@northern.edu

O, Circle of Life, is an experimental animation and music composition that combines geometric shape and form based on the concepts of the Buddhist Circle of Life philosophy and the Taoist philosophy of Nature existing within the human mind. The imagery and its transformations and interactions are interwoven and balanced with a musical/sound computer-generated score. The images of symbols and their meanings are explored through color and changing patterns, movements, and metamorphoses. The dynamic unions of these symbols in a spatial context of lightness and darkness create unexpected and unique visual and aural expressions that traverse time and space.

Justin Rubin

USA jrubin1@d.umn.edu http://www.d.umn.edu/~jrubin1

Working simultaneously as a musician and painter, I was interested in finding a means of fusing my two artistic endeavors. I began to make brief documentary videos and soon realized that this medium could be the solution. The immediate inspiration behind my first experiment in video painting had been my interest in the 'zip' paintings of Barnett Newman that are composed of bold vertical stripes on a monochromatic plane. My intention was to create a nonobjective moving image that had similar consistency in form while employing very reduced visual subject matter. In this work all of the images are created through layering altered footage of metal hinges. Its coherence rests entirely on the succession and integration of colors and textures, supported by the dramatically subdued score. The experience of working with this sequence of images felt more like composing music. In terms of scoring, I realized the need to draw a parallel with the video regarding uniformity, temperament, and pace. As such I chose to rework a piano piece that I composed earlier that was in a single mode (like a monochromatic field) and had a simple descending scalar melody (like a 'zip') that cuts through progressively altered triadic materials.



Rhythm 21, 1921 3:30

Rhythm 23, 1923 2:30

HISTORIC WORKS

Han Richter (1888-1976)

Germany

Han Richter began his career as a painter and member of the Dada movement. Following World War I, he, along with Walter Ruttman and Viking Eggeling, became involved with experimental film and incorporated techniques such as painting directly on stock. Richter was particularly interested in using principles drawn from music composition in his work, and in his silent films, time is often organized according to schemes that could be derived from musical rhythmic patterns. He also spoke of visual "instruments" and "orchestration" when describing his formal practices. —Dennis Miller

Mary Ellen Bute (1904-1983)

USA www.unseen-cinema.com

Bute used Webber's experience with making cardboard models and with photographing in soft-focus and through prisms to produce multiple refractions and reflections. In addition, she used cellophane, ping-pong balls, sparklers, eggbeaters, and bracelets to create a work that, while pushing towards abstraction, does not completely leave the objective world behind. —R. Bruce Elder

Rhythm In Light courtesy of "Unseen Cinema: Early American Avant-Garde Film 1894-1941," a collaborative film preservation project between Anthology Film Archives, New York, and Deutsches Filmmuseum, Frankfurt-am-Main, and underwritten by Cineric, Inc.

Oskar Fischinger (1900-1967)

USA www.oskarfischinger.org ofischingerinfo@gmail.com

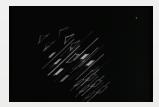
Fischinger's Motion Painting No. 1, with the music of Bach's Brandenburg Concerto No. 3, was created using a stop-motion technique in which the artist filmed individual brushstrokes painted on plexiglas. In his article "The Films of Oskar Fischinger," (Film Culture 58-59-60, 1974), scholar William Moritz notes that Fischinger first had the idea of "making a grand and glorious film to be accompanied by Bach music" in 1934. Moritz adds: "Fischinger painted every day for over five months without being able to see how it was coming out on film, since he wanted to keep all the conditions, including film stock, absolutely consistent in order to avoid unexpected variations in quality of image." Fischinger received support from Baroness Hilla Rebay, then curator of the Guggenheim Foundation. According to Moritz, Rebay was not at all happy with the film, and Fischinger subsequently received no further support from the Foundation. -Dennis Miller

Begone Dull Care/Caprice en couleurs, 1949 7:48

Directed by Norman McLaren (1914-1987) and Evelyn Lambart (1914 - 1999)

Scotland/Canada

Norman McLaren was born in Scotland and immigrated to Canada in 1941 after spending 2 years in the US. His early works, such as Love on the Wing (1937), incorporate the technique of drawing directly on film which he, like Len Lye, used throughout his career. In 1941, he was invited by the National Film Board of Canada to establish an animation program, which he directed until 1983. Begone Dull, Care uses the direct-to-film technique and is set to the music of the Oscar Peterson Trio. In his online article (www.nfb.ca) Marcel Jean notes "... ages and music interact through a network of associative connotations that



Rhythm in Light, 1934

Motion Painting No. 1, 1947 11:00

6:00

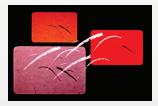


HISTORIC WORKS

Continued

reveal their essence, their rich texture, patterns and energy." –Dennis Miller Produced by Norman McLaren A National Film Board of Canada Production

Chasse des Touches, 1959 6:00



Courtesy of the iotacenter and Angelina Pike

Blazes, 1961 6:00

Arabesque, 1975

7:00



Arabesque by John Whitney, Sr., 1975, computer-graphics, 16mm, 7 minutes, color, sound. Music: Manoocheher Sadeghi. Estate of John and James Whitney, USA, © 2007

Particles in Space, 1966

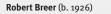
3:00

Tal Farlow, 1980 (completed posthumously) 3:00

Hy Hirsh (1911–1961)

USA

As with many of his films, *Chasse des Touches* uses a jazz soundtrack—here the music of Thelonius Monk. The film presents multilayered visual riffs that often correspond to riffs in the music.



USA

Robert Breer attended Stanford University and from 1949 to 1959 lived in Paris, where he worked primarily as a painter. Upon his return to the US, he moved to New York and became associated with members of the Pop Art movement and the Fluxus group. His work as a filmmaker spans nearly 50 years. —Dennis Miller

John Whitney (1917–1995)

USA

"Above all, I want to demonstrate that electronic music and electronic colorin-action combine to make an inseparable whole that is much greater than its parts." -John Whitney Sr.

John Whitney Sr. has often been called "the father of computer graphics" and developed a number of new technologies, at first analog, then later, digital, for generating images. In 1966 he became the first IBM "artist in residence." *Arabesque*, which is considered by many to be his masterpiece, incorporates computer software by Larry Cuba and sound by Manoochehr Sadeghi.

Len Lye (1901–1980)

New Zealand

Len Lye worked both with direct film techniques and kinetic sculptor and was influenced by the indigenous peoples of Pacific Island culture, in particular the Maori of New Zealand and Australian Aborigines. He moved to London in 1926, where he produced his first direct film, *A Colour Box*, in 1935. Among the tools he used to manipulate film stock were dyes, stencils, air-brushes, felt tip pens, stamps, combs and surgical instruments. The soundtrack for *Particles in Space* includes sounds generated by his kinetic sculptors and Yoruban drum music. *Tal Farlow* uses a recording of the song "Rock 'n' Rye" by guitar legend Tal Farlow as its soundtrack. —Dennis Miller

30



The Rice Song, 2006

3:00

VISUAL MUSIC FROM THE IOTACENTER

This hour was curated by Larry Cuba

Chris Casady

USA ccasa@mac.com www.naptime.com

Quirky animated elements bring the traditional Koren food song to life from the viewpoint of a petulant hungry baby.

Paul Glabicki

USA pganim8+@pitt.edu www.pitt.edu/~studio/glabickidmx.html

FIVE IMPROVISATIONS was a genuine image/sound/music experiment, and part two of a trilogy of "diagrammatic" films that began with DIAGRAM FILM (1978), and ended with FILM-WIPE-FILM (1983). Over the years, many individuals have cited these films as early computer generated works, when in fact, they were created entirely by hand. FIVE IMPROVISATIONS consisted of a single animated cycle and diagram - a condensed cryptic diagram of the history of cinema and animation (from Melies, Winsor McCay, Eisenstein and Robert Breer to Godard). As with all of my films, I constructed the sound track after viewing the completed footage. In this case, everything from Verdi operas to the actual sound of the animation camera was fragmented and reassembled in a sound collage (using hundreds of hand cut and assembled fragments of 16mm magnetic stock).

Robert Darroll

Germany rrdarroll@hotmail.com http://www.iotacenter.org/visualmusic/ profiles/darrollrobertfolder

The film is based on a linear composition in which forms and form groups undergo a continuous process of transformation. In the process, form elements occasionally arise which are related to naturalistic forms, i.e. forms that have a recognizable function in conventional reality. Their arisal is however, merely transitory as they return either as form or non-form into the stream of change. The composition indicates the intimate relationship between form (matter) and non-form (field) and the continuous flowing exchange that takes place between these two poles.

Oerd van Cuijlenborg

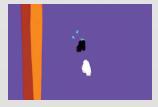
Europe oerd@free.fr http://oerd.free.fr

"Oerd van Cuijlenborg's Djizzazzy exuded classic panache. Whenever a work matches designs to a pre-existing, popular, and highly structured musical recording, there is a risk that the visual track would be judged as being merely illustrative of or even subordinate to the soundtrack. Not so Djizzazzy. Like Norman McLaren's Be Gone Dull Care, Cuijlenborg's film poised itself between the twin senses of hearing and sight, enhancing our sensitivity to both through mimicry and counterpoint. To Dizzy Gillespie Big Band's "Birks Works," black zags zigged across a field of saturated mustard while schools of periwinkle stars jived through lipstick red streaks. Djizzazzy's dapper palette and elegant transitions heightened the score's casual cosmopolitanism; the film felt as intoxicating as a perfect gin and tonic. Indeed, there was something nostalgic to the splendor of this tightly synchronized rhapsody in color and form- a kind of sophistication that evoked modernist ideals that are no less potent for being dated." - Victoria Meng

Feng Huang, 1986 10:00



Djizzazzy, 2004 4:53











Wicked Paths, Cruel Deserts, 1999, 2001 10:00



VISUAL MUSIC FROM THE IOTACENTER

Continued

Ying Tan, images Jeffrey Stolet, music USA tanying@uoregon.edu www.uoregon.edu/~tanying

Caminos Terribles, Desiertos Crueles (Wicked Paths, Cruel Deserts) is a media work for mezzo-soprano, Yamaha Disklavier and computer-generated sound. The music was composed by Jeffrey Stolet and computer animation was created by Ying Tan. The work emerged from personal contemplations about what it means to cross borders and to arrive in new lands. The texts, based on poems by the Spanish writer Gustavo Becquer, describe the dangers and treacherousness awaiting those that penetrate or challenge the border's authority. The translations of the text for parts two, three and four are provided below:

"My life is a barren land; at my touch the flower drops its petals; for on my ill-fated path, someone has planted evil for me to harvest."

"Like a swarm of angry bees from a dark recess in my memory visions of past hours emerge to haunt me. I want to drive them away. Useless effort! They surround me, they pursue me. and one after another they come to drive into me that sharp stinger that inflames the soul."

"First the dawn comes, tremulous and vague, a ray of restless light that slices the sea; then it sparkles and grows and extends into a fiery burst of splendor. The brilliant light is joy itself, the trembling shadow, sorrow: Oh! in the dark night of my soul, when will it ever dawn?"

Jeffers Egan, images Jake Mandel, music USA jeffers@jeffersegan.com www.jeffersegan.com

Bati Dominance intertwines the worlds of abstract painting and electronic music, creating an advanced, dynamic relationship between the audio and visuals. The result is a hyperreal fluidity that casts the viewer directly into the time-shifting, sense-warping abyss of the sublime. A collaborative project between visual artist Jeffers Egan and electronic musician Jake Mandell, *Bati Dominance* is one of five tracks from their *Slither* DVD, a 41-minute video album released on K2O Records in Berlin.

Mondi

USA mondi@dyskinetic.com www.dyskinetic.com

Zeus is the sixth in a ten-part series of short films based on the harmony of the spheres. Mondi explains, "Utilizing data mainly from the planet Jupiter, I created custom software to generate the bulk of the imagery, which was finally composited with a short, stop-motion series of photographs. The soundtrack was generated similarly." Born and raised in Kenya, Mondi came to the U.S. in 1998 to attend CalArts, where he received a BFA and MFA in Experimental Animation and Integrated Media. Since then, he has been working as a computer graphics programmer in Marina Del Rey.

Zeus, 2005 4:00

Bati Dominance, 2002

3:22



Autarkeia Aggregatum, 2005 9:30 **Bret Battey**

USA bret@bathatmedia.com bathatmedia.com

Continuing an approach started with my work *cMatrix10* (2004), I produced the visuals for *Autarkeia Aggregetum* through the massed animation of individual points. There are no splices or cuts in the video; it unfolds from beginning



to end through the continuous movement and transformation of over 11,000 points. Similarly, the audio emphasizes ebb and flow between different states, minimizing hard edges and events.

Calculated Movements, 1985 6:00



Kitsch In Synch, 1975 4:45



Larry Cuba, images Larry Simon, Craig Harris, Rand Weatherwax, music USA cuba@iotacenter.org www.well.com/user/cuba/

A choreographed sequence of graphic events constructed from simple elements repeated and combined in a hierarchical structure. The simplest element is a linear ribbon-like figure that appears, follows a path across the screen and then disappears. The next level up in the hierarchy is an animating geometric form composed of multiple copies of the ribbon figure shifted in time and space. At this level the copies are spread out into a two-dimensional symmetry pattern or shifted out of phase in a follow-the-leader type structure, or a combination of the two. The highest level is the sequential arrangement of these graphic events into a score that describes the composition from beginning to end.

Adam Beckett (1950–1979)

USA info@iotacenter.org www.iotacenter.org/projects/beckett

Finished in 1975, *Kitsch in Synch* resulted from collaboration between two classes at CalArts, directed by Adam Beckett. This amazing film is based on cutout paper animated under the camera, with color and optical effects added via the optical printer. If you look closely you will see live action footage and representational images in the brilliant cacophony. As noted in a review when it was released, "*Kitsch in Synch* is a visual stew, a jumble of disordered shapes and colors bouncing irrepressibly to an infectious track. Like other Beckett films, it is minimal in its imagery and musical in its structure, but here Beckett's sense of funk predominates." Definitely not minimal by today's standards, this film's award-winning sound and astounding color make it memorable and completely enjoyable. This is Beckett's last completed art film before going on to work as head of animation and rotoscoping on the first Star Wars movie.— Pamela Turner



Retz/distrans, 2006 4:33

Pierce Warnecke

USA piercewar@gmail.com www.myspace.com/piercewarnecke

Retz\distrans is the third piece in Pierce's ongoing series exploring video manipulation of filmed light sources. This particular piece is made entirely from two short video clips of lamps. One is a green lava lamp, the other is a spiral shaped electric lamp with a continuous chaotic electric bolt in it. Pierce is an American visual artist and electronic music producer who has spent the last ten years living in France. He is a senior at the Berklee College of Music. Music and Video by Pierce Warnecke.



Seven Cartoons, 2000

9:30

Continued

Maurice Wright

USA wright@temple.edu www.mauricewright.org



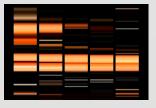
Dark Star, 2007 3:58



SCORE, 2006 3:30



Velocity, 2002 6:30



Music critic Bill Bennett writes: "7 Cartoons goes boldly where no chamber music has gone before, moving from abstractions of music notation and the iconic keyboard to a broader set of symbols drawn from popular culture.... These images often allude to the process of composition: one can see...the transformations Wright coaxes out of his work – retrograde inversion was never so clear. The evocation of the everyday electrical source reveals that even a well-grounded outlet can experience moments of existential angst in the search for its dada ("Oh, no!"). This Munchkin face is then hung on a virtual diva, while a "real" (not really) performer and his deerstalkered döppelganger contend for the privilege of accompanying her. At this point, a ... responsible (real) annotator might simply urge listeners to relax and enjoy the show."

Benton-C Bainbridge, images Bobby Previte, music

USA bcb@benton-c.com www.bobbyprevite.com/dialedin.html

Dark Energy exchanges between unseen folded dimensions. From the upcoming DVD "Dialed In" by Bobby Previte and Benton-C Bainbridge, a trigger-happy dialog between sight and sound. Drum legend Previte's music is arguably the world's first live solo electronic drum work of its kind—14 movements performed in real time, with no loops, no laptops, and no overdubbing—a drummer let loose in an electronic candy store. VJ veteran Benton-C responds by painting with light, freely grabbing from personal archives of video obscura, altering them beyond recognition, then recomposing them in a real-time process much like Previte's kit-triggered music.Each using obsolete and forgotten technology scavenged from the tech dump, Benton-C warps video into strange shapes not seen since Electric Company, while Previte elevates raw sound into music you can actually listen to more than once.

Fried Daehn

Germany fdaehn@friedstyle.com www.friedstyle.com

SCORE follows a simple rule: you hear what you see or you see what you hear. Every visual is connected with its individual sound. The audio-visual material is structured musically: Pulse, break, dynamics, counterpoint and repetition.

Iconish (in colloaboration with FORAUDIOFANS) Spain nico@futura-tc.com

Displacing time, the same landscape in different moments generates an enigmatic visual equalizer.

Son et Lumières, 2006 7:21

Walking Tune, 2006 3:29, World Premiere



Nick Cope, images Tim Howle, music UK nick.cope@sunderland.ac.uk www.digitaldrift.net

Using visual techniques analogous to methods of electro-acoustic composition, Son et Lumières builds on the successful collaboration between composer Tim Howle and film maker Nick Cope. Filming the Fawley Oil Refinery at night on the banks of Southampton Water, England, the footage is manipulated both in camera, through single frame shooting and exposure manipulation as well as double exposing the film, before further manipulation and treatment of the footage is carried out in post production. In this collaboration the footage was then edited and multi layered to the already composed composition, in contrast to and mirroring the collaborative methods employed in our previous work, Open Circuits. Nick Cope is Senior Lecturer in Media Production at the University of Sunderland and has worked freelance in film and video production with a particular emphasis on music and moving image work, collaborating with Cabaret Voltaire, the Butthole Surfers, O Yuki Conjugate and Electribe 101 amongst others. More recent work has included projection work for public arts projects and installation collaborations, and has had work screened throughout the US, the EU and China. Tim Howle currently lectures in Electroacoustic music at the University of Hull. Before this he was director of the Electronic Music Studios at Oxford Brookes University. He read music at Keele University, studying under Roger Marsh and Mike Vaughan, completing a Doctorate in Composition in 1999. His work centers on electroacoustic music including pieces for tape, performer and live electronics and pieces involving visual media. He work has been performed throughout the US and the EU. Video - 16mm single frame animation, in camera double exposure, video postproduction effects (Sony digital vision mixer) and Final Cut Pro non linear digital editing software. Sound - GRMTools, Composers Desktop Project, Grainmill, Logic, Cool Edit Pro.

Leonard Ellis

USA vmmarathoner@artkitchen.com www.artkitchen.com

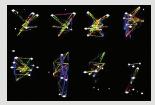
Leonard Ellis, composer, pianist, painter, poet, storyteller, filmmaker, designer and scientist, is a graduate of California Institute of the Arts. He has released four recordings of his compositions, *Circle of Dreams, The Bear Behind and Winter Waltz, Starlight Sonata* and *The Earthquake Album*. In addition to his animated films *Walking Tune* and *Boobs A Lot*, he has also utilized film in his multimedia performance pieces *The Second Art Project* and *Natural Dreams*. For more information on his music, films, paintings and poetry, check out his web site at http:// www.artkitchen.com.

Walking Tune is the first in a series of animations that I have begun in an attempt to create visual accompaniments to all the tunes on my album *Starlight Sonata*. Start WALKING because this film will run CIRCLES around you until you find yourself back at SQUARE one. Then you should TRY a different ANGLE to stay in SHAPE and toe the LINE.

Liana Alexandra

Romania lianaalexandra@gmail.com www.geocities.com/lianaalexandra/ classic_blue.html

VARIATIONS 4, 2006 3:00



Computer Music with MAM software visualisations.



Scroggins Beach, 2008 7:00 World Premiere



Iim Ellis

USA www.emsh.calarts.edu/~jim/

Another Kind of Blues, 2005 5:05



Immersions with Emile Tobenfeld

Tina Frank, images

Peter Rehberg, music

into it if the proper 3D glasses are worn.

USA emile@foryourhead.com www.foryourhead.com

The Immersions Ensemble is an improvising ensemble which balances visuals and music. The musicians perform facing the screen so they can respond to the projected images while the video artist (Emile Tobenfeld -- performing under the stage name Doctor T) responds to the music. Doctor T prepares a large amount of visual material on DVD, and improvises with 4 DVD players, 3 video mixers and a percussion controller. The performances are free improvisations for visualist and musicians. Another Kind of Blues is an excerpt from an Immersions performance that took place on Dec. 17, 2005, at Artists At Large Gallery in Hyde Park, MA. The musicians for this performance were Dean Stiglitz, electro flute; Romana Herboldsheimer, hammered dulcimer; Bob McCloskey, reeds and percussion; and Glynnis (Dragon Woman) Loman, cello. Immersions 2005 is an hour long DVD-R excerpted from three Immersions performances, and available for \$15 (ppd. in USA), payment by PayPal.

Austria

http://www.frank.at/

A real-time CGI tribute to video/cgi pioneer Michael Scroggins. The film employs a 3D Pulfrich effect, which can be seen starting about two minutes

Sunspot, 2005

2:20



Pitbudp is an abstract visual interpretation of a musical piece by Peter Rehberg. This short video is built upon a graphic language of black and white blocks moving, zooming, panning and rotating around the strong rhythm which makes up the audio-piece. It feels soothing and slowly captures the mind of the listener/viewer.

George Stadnik

USA stadnik@erols.com www.photonlightguitars.com



Sunspot is a digital lumia composition that evokes and expands upon Liquid lens and laser Lumia experiments I conducted in the 1970's.

Pitdubp, 2003

2:50



Erev Shel Shoshanim / Kate & Rose's, 2007

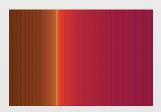
5:25



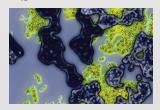
Tunnel Vision, 2006 4:00



Well (live), 2006 7:58



Dr. Woohoo & Bit Shifter: Activation Theme, 2006 2:45



Nathaniel Resnikoff

USA ned@resnikoff.com ned.resnikoff.com

Two traditional melodies are arranged and performed by Heathen Creek. The visualization reveals much of the fine structure of the violin solos.

Janene Higgins, images Elliott Sharp, music USA myrakoob@echonyc.com www.echonyc.com/~myrakoob

A rhythmic reverie between the stations.

Michael Carter, images Upside Down Umbrella, music USA michael@sunshine.tc http://michael.sunshine.tc

A sound can't be grasped in the hand; a note can't be held between the fingers. But it cannot be disputed that both are real. Music has no substance or material, yet it exists. So convincing is the existence of music that it extends beyond the performer, creating environments and coloring space; Music "sets the tone" and "sets the mood." *Well (live)* came into existence as the result of a performance/collaboration with Upside Down Umbrella. It is the visualization of one characteristic of music; It is the result of one take. Here, video of the room in which a performance of *Well* is taking place is captured and manipulated. The result is the "mood of the room" made visible - The invisible visualized.

Dr. Woohoo!, images Bit Shifter, music USA drew@drwoohoo.com www.drwoohoo.com

Dr. Woohoo (http://www.drwoohoo.com) is in the process of teaching his brush strokes to listen and then dance to the music of Bit Shifter (http:// bit. shifter.net/). Bit Shifter explores low-bit, high-energy music composed and performed on a Nintendo Game Boy. In *Activation Theme*, Woohoo uses several audio analysis algorithms to break the music down into multiple frequency ranges and amplitudes over time. This data then drives the direction of the brush stroke in a custom application called brushes.paints.stencils. that Woohoo developed. The end result is like watching kids at a high school dance – it's outrageous!



Continued

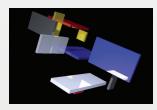
Malcolm Sutherland

Canada animalcolm@yahoo.ca www.oneiropod.com

1921 > 1989, 1989 6:30

Birdcalls, 2006

5:00



Michael Scroggins, images Barry Schrader, music

The written languages of birds come to life.

USA aka@emsh.calarts.edu http://emsh.calarts.edu/~aka/

The title derives from the syntax of the UNIX operating system used in the creation of the work. It indicates, "1921 read into 1989". In starting work in 3D CG, I discovered Cartesian coordinate space was intrinsic. This orthogonal matrix suggested exploring tenets of Neoplasticism as articulated by Theo Van Doesburg in a 1921 issue of the journal "De Stijl". While I found it stimulating to work within the discipline of Van Doesburg's theories, I could not do so with the full strength of conviction possible to an artist of that era. It is impossible for any of us to ignore all that has passed in the intervening decades, and it should be noted that the doctrines that Van Doesburg postulated in 1921 were modified by 1922. By 1926, he found it necessary to create yet a new 'ism', stating; "Elementarism is to be regarded, therefore, as the synthesis of the new plastic consciousness of the age. The 'isms' of the last decades have mostly perished, either because of their one-sided, dogmatic limitations, or because of compromise or chauvinistic tendencies. They no longer have any force or value for renewal." A delightful take on the ephemeral nature of intellectual fashion.

Stillpoint, 2007 7:56



Douglas Durant

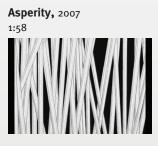
USA durantenge@rcn.com

Stillpoint begins as a meditative piano solo, with alternating cycles of extrovert electronic commentary and introvert piano returns. Eventually the two elements fuse and release into a broad flowing section. A distorted return to the opening material shifts toward a more violent undercurrent whose remainder is an entirely new stillness, as provisional as the original piano solo. While the images which accompany and counterpoint the music are abstract, I hope the viewer senses that the shifting camera eye is not a neutral observer, but instead, a kind of personal and separate awareness... linked in some way to the original separateness of the piano. Like the piano, the eye also waits, returns, shifts, ignores, (blinks), and plunges. In the final scenes perhaps other new aspects of the visual interlocutor are revealed. Finally, I should say that the ideas around the shifting roles played within a larger form, I take from my understanding of chamber music, which is often described as "a conversation-among equals."

Dans l'ombres de soimême, 2005

6:09

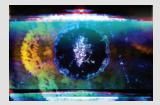




Pipilo, 2007 2:15



Cortex, 2005 9:15



Mark Zaki, images and music Annie Loui, dance USA MZ@MarkZaki.com amloui@uci.edu www.MarkZaki.com

Dans l'ombres de soi-même is part of a video trilogy that grew out of a commission by dancer and choreographer Annie Loui for the exhibition *Bits and Pieces* at the UC-Riverside Museum of Photography. Inspired by a poem about the Orpheus Legend by Rilke, the piece uses a dancer's movement to explore the relationship between motion and sound in a virtual dance. In certain cases, links between the audio and video were reinforced using the audio signal as a modulating source to control aspects of corresponding visual effects. *Dans l'ombres* was filmed at the University of California in Irvine, with camera work by Jerome Thomas. It was subsequently realized in the composer's personal studio using a combination of software applications including Final Cut Pro, After Effects and Max/MSP/Jitter.

Tom Jobbins, images Bruno Gabiro, music

UK tomlives@live.co.uk

The author's goal was to make a visually stunning sound piece using only the instrument as imagery.

Brian Evans

USA brian.evans@ua.edu www.ghostartists.com

Everything reduces to data mapping and information design. The only hard question is why we do either. I never got past a fascination with numbers, a desire to write songs, a desire to make pictures. All is number in the computer. I take numeric models and see what songs and pictures they will make. How can I map numbers to the senses—turn numbers into a tangible experience? Then I wonder how the senses map to each other. I map the maps. Sound to image—a visualization. Image to sound—a sonification. In mapping numbers into sensory experience, aesthetic decisions are made. What palette of colors to use? What set of pitches? How long? How big? The artist chooses. In a digital world the mapping itself is a choice. Beyond arithmetic there are no rules. I make simple rules. You have to start somewhere. One loop (now it's a narrative). Two minutes (don't blink). The sound should be seen, the image audible. Other than that, make music. It's jazz in 4D. Hear the colors. Listen with your eyes.

Mike Almond, images Mathew Adkins, music

England m.adkins@hud.ac.uk mathewadkins.co.uk

In *Cortex* we first hear the disembodied voice of a 'cyber-innocent' experiencing the rush of entering cyberspace for the first time followed by an initial burst of rhythmic excitement. At this stage the vocal samples are almost unadulterated. As the piece progresses, the 'cyber-innocent' accumulates information, viruses, and other digital detritus floating around cyberspace. This is reflected in the vocal samples becoming more and more distorted. By the end of the piece virtually all sonic traces of the original 'cyber-innocent' have vanished, replaced by a newly constructed digital personality...an avatar... and so to the second part of the trilogy. *Cortex* was commissioned by the GRM for the *Présences Électronique* Festival February 2005.



INFINITE SONG, 2006 14:40

Serban Nichifor

Romania serbannichifor@gmail.com www.geocities.com/serbannichifor/ classic_blue.html



Visualizations with "MilkDrop_104" plug_ins : Ryan GEISS (USA) -Email: guava@geisswerks.com ; URL: http://www.geisswerks.com/

IS THIS CORRECT? ^ PLEASE CONFIRM.

Gathering Storm, 2003 6:00

David Rimmer, images Black Star Liner, music Canada



The heartbeat of humanity. The drumbeat of war. An accelerating world beat announces the relentless approach of a dark force. Experimental filmmaker David Rimmer fuses image and music to conjure up the spectre of violence. Abstract pieces of sky, land and ocean pulse, retreat and pick up speed on a glowering screen. A radioactive intensity slowly builds as the Gathering Storm prepares to break. A hauntingly beautiful film about the world's flight into chaos.

Technique: Rimmer has taken McLaren's camera-less technique to new heights. He paints directly on clear 35mm leader, using odd materials such as household cleaners, varnish, inks and sometimes fish scales and ferns. He feeds the loops through a film editing machine, overlays them with music and records the result with a mini DV camera. For Gathering Storm, he chose music with a Middle Eastern flavour. (notes excerpted from www3.nfb.ca)

Wilfried Jentzsch

Germany wilfried.jentzsch@t-online.de

Kyoto Bells, 2006 10:52



Destellos, 2001 5:37



This piece is structured by the processed sounds of a small Japanese bell Furin. It begins with a single tone which leads the musical structure more and more dense and finally reaches the noise. The various stages of processed sounds between the single tone and the noise bridge the two components. A square shape which is colored with blue and white structures the visual part geometrically. The energy and the spectra of the sound modify the shape and the lightness of color to transform the square object generating in real time.

Elsa Justel

Argentina/France ejustel@club-internet.fr

Destellos (Sparkle) "As in a reverie, the objects separate from their sense to become poetry." The idea of the project is to give life to the sparkle in different materials. Metal, glasses, ice, will travel in time and space by means of computer animation. There is also a play with sensations of fragility and transparence. The music plays the same notions by using recorded sounds of the same materials. In fact, the discourse is lead by the music, which guides the development and underlines the sense of colour.

Liaisons, 2005 9:20



whisper, 1997 4:55



Release!, 2007 10:13, World Premiere

Jean Detheux, images Jean Derome, music Belgium/Canada jeand2@mac.com www.vudici.net

This abstract film, full of rich colours and textures, was created thanks to an inventive use of digital technology. It grew out of an unusual process of interchange between the painter Jean Detheux and the composer Jean Derome. The result is a rare meeting of images and music. What we get is an intense meditation on a world in constant renewal, where every form that emerges is immediately engulfed by the next one. It constitutes a sort of diptych with the film *Rupture*, which follows.

Jim Ellis, images Aksak Maboul, music USA resonateperception@hotmail.com www.emsh.calarts.edu/~jim

search bright blinding try to speak apologies thanks ashamed proud one word of many to loved ones to strangers this whisper

Sylvia Pengilly, images Michael Rhoades, music USA spengilly@charter.net mrhoades@perceptionfactory.com webpages.charter.net/spengilly www.perceptionfactory.com



When Michael Rhoades sent me a .wav file of *Release!* I loved it immediately. It is a joyous rollercoaster ride through an exciting landscape of violently contrasting timbres, dynamics and rhythms with surprises around every corner. I was also highly intrigued by the visual beauty of the composite waveform, which contained shapes I had never seen before, including lines and dots, in addition to the regular spiky shapes. The video was created by extracting segments of the waveform, processing and animating them visually, then synchronizing them with the music they represent. It is, therefore, a very tangible manifestation of "Visual Music."



165 Star Oasis, 2005 5:43



ABSTRACT VISUAL MUSIC FROM THE NEW YORK DIGITAL SALON AND THE SCHOOL OF VISUAL ARTS MFA COMPUTER ART DEPARTMENT This hour was curated by Bruce Wands

Scott Draves

USA www.scottdraves.com

165 Star Oasis functions as a visualization. Although the sound does not relate to the image directly, repetitions of visual and musical motifs are synchronized with one another and promote a sense of temporal narrative development, which begins, builds and concludes.



Abstract Visual Music from the New York Digital Salon and the School of Visual Arts MFA Computer Art Department *Continued*

Robert Seidel

Germany http://www.grau1001.de

_**grau,** 2004 10:01



Boceto, 2005 4:25



The Plain Silvery Side of This Disc, 2006 1:17



phase_trans #3, 2006 3:00



_grau is a highly dramatic work made in response to a personal experience of the artist. In this piece, the visual imagery is not a translation of the music; rather the image and sound evolve in tandem with each other, as separate but related expressions of a common event, which are treated in a similar way. For instance, both the music and the visualization contain references to corporeal experience—the shape of a hand or the sound of a motor—but only as a suggestion that this abstract realm might be connected to the material world.

Isabel Moyano, images Cristobal Barragan, music Spain

Constructed of three independent but related movements, *Boceto* seeks to synthesize music and image into a single expressive form. Musical transitions are accompanied by visual transformations, thus binding the two media within a shared time frame.

Sean Capone

USA www.positrongraphic.com

The Plain Silvery Side of This Disc is an exploration of the relationship between the transmission of a virtual medium and how that medium actually looks and feels. As the music purposely skips and repeats itself, the imagery, which emulates the dynamic color and texture of a disc, shifts and stutters accordingly, effectively linking the aural experience to the visual.

Rumi Humphrey

Puerto Rico www.refresh.vu

Phase___trans #3 brings together digitally produced imagery and sound through real time improvisation. The effect is a harmonious collaboration of aural and visual elements, which work in sync or complement each other to dissolve the sensory boundaries that limit the expressive qualities of either media working on its own.

Flow, 2005 4:50

Scott Nygeres

USA www.nyerges.com



Chalazae, 2005 4:30 of direct correspondence between music and imagery, cohesion is obtained from the continuously changing, but evenly toned aural and visual texture of the piece.

Flow is not lead by sound or by image, but rather, the two exist in parallel, alternatively complementing and contrasting with one another. In the absence

Samantha Krukowski, images Bruce Pennycook, music USA bpenycook@mail.utexas.edu www.penntech-records.com www.rasa.net www.cm.aces.utexas.edu/faculty/skrukowski/



"i" the being, 2005 4:03 Liquid egg whites and yolks slide and drip across the screen to the sounds of a score that was composed specifically for this visualization. Although the raw subject of *Chalazae* is simply chicken eggs, the combination of manipulated imagery and sound become a document of an imaginary organic event, a typically unseen and unheard performance of the natural world.

Purva Mande

USA www.purvamande.com



In Purva Mande's piece, music and image interact and respond with one another, creating an audiovisual performance of color, shape and sound. Shapes spin and collide with a swooshing clang and colors flicker in time with a diegetic beat, as though the sounds themselves are animated.

Four Plays, 2005 2:21



USA www.vivekpatel.com



Four Plays is a clear example of a specific musical composition translated into a visual language. Set to a piece of classical music, the artist uses different visual signs to represent the rhythm and themes of the music. As musical motifs recur and fade away, the visual forms repeat themselves, establishing complex patterns that linger and dissolve like an illustration of the aural impressions experienced by the viewer.



What Might Have Been, 2005

2:33

Abstract Visual Music from the New York Digital Salon and the School of Visual Arts MFA Computer Art Department *Continued*

Nancy Herman

www.nancyherman.com



What Might Have Been is a systematic visualization created by assigning colors to tones of sound in order to test the artist's theory that pure colors presented in sequence affect the human psyche in the same way as music. Based in the artist's work with fabric, this piece is a simple, digitally produced visual translation of sound.

Germany

Pixelsound, 2003 1:00



Italy www.ackurat.net



Sound Studies, 2005

3:46

Marco Di Noia achieves abstraction through minimalism. Reducing footage of his dog to animated "pixels" of color and formatting the imagery to fit to the length of the music, the artist allows the relationship between picture and sound to occur within a set of simple temporal parameters.

Andrew Goncalves

Portugal www.ctrl.tk



Modal Drawing Toy, 2006 2:00

Sound Studies is interactive software that translates sound into simple imagery. Unlike most of the work in this collection, *Sound Studies* is completely in black and white and virtually ignores the elements of shape and form in favor of frequency. The vibrating movements of sound are visualized on the screen as an extension of the aural experience, which intensifies the viewer's perception of the sound. Where other works of visual music might seem to allow the audience to listen with their eyes, this piece permits them to see with their ears.

Joe Tekippe

USA www.josephtekippe.com



This video records an improvisation created using the *Modal Drawing Toy*. The piece itself is an instrument which correlates audio and visual output to produce works of abstract visual music in real time. Manipulating the image by affecting color, line, and location simultaneously generates an accompaniment of sounds varying in scale, pitch and duration.

META_EPICS, Module 2,

2005 4:50



200 Nanowebbers, 2005 3:15 Telcosystems: David Kiers, Gideon Kiers and Lucas van der Velden Germany www.telcosystems.net

Meant to be viewed as an installation on a large screen with surround sound, this video captures a performance of images and sounds that were created in virtual spatial environments in real time. Representative of a large body of contemporary visualizations, *META_EPICS* uses algorithms to determine the form of digital images and sounds and the relationship between them. Divorced from a more traditional concept of music composition, it is this interaction that places *META_EPICS* within the realm of so-called Visual Music.

Semiconductor: Ruth Jarman &	
Joseph Gerhardt	

UK www.semiconductorfilms.com



is so closely associated with the sound, visually mimicking as it does, the pulsing, irregular rhythms and beeps, the story of the imagery becomes the form of the music.

Composed of sonically driven visuals, *200 Nanowebbers* is loosely narrative. Essentially the work documents the organic lifecycle of an abstract form in space as it blooms, develops, then shorts out and "dies." Because the imagery



Dreamscape, 2005 19:30



Etude, 1994 2:21



Vibeke Sorensen, images Rand Steiger, music USA vsorensen@gmail.com http://vibeke.info

A dream of flight and light, *Dreamscape* is a 'visual-music' work inspired by 'dreamtime' concepts of Aboriginal Australians, and is an homage to Native American sand painting of the Southwest United States where traditionally its role has been to help put human beings into greater harmony with nature and the universe. It evokes dreamstates by employing several contemporary concepts, including Rapid Eye Movement (REM) and patterned rhythmic structures. Original materials were recorded in several locations around the world during native Solstice celebrations and other celestial events, including in Bolivia, Brazil, China, France, and the US Southwest.

David Ehrlich, images Tom Farrell, music USA http://asifa.net/+/ehrlich/

An animated clay-painting in homage to Abstract Expressionism with music created by Tom Farrell.



thereabouts, 2006 5:20



¿Te Acuerdas Hijo? (Do You Remember Son?), 2006 16:38



IV.6, 2006 3:38



Trevor, 2000 11:05



Continued

Peter Byrne and Carole Woodlock, images Ethan Borshansky, music USA/Canada pjbfaa@rit.edu byrnestudio.net

Thereabouts is a collaborative work by Peter Byrne, Carole Woodlock, and Ethan Borshansky. It is a reflection on landscape and memory. In this work the artists create a layered visual journey. The sound weaves through the imagery, presenting an intimate encounter that punctuates and shifts ones sense of balance. An inquiry into the physical presence of the screen and gesture, this work uses imagery and music to evoke a sense of place.

Rajmil Fischman

Peru/Israel/UK r.a.fischman@keele.ac.uk www.keele.ac.uk/depts/mu/staff/rajmil.htm

¿Te Acuerdas Hijo? is dedicated to the memory of my father, Alberto Fischman (1920-1983). The text appearing in the video is taken from the beginning of the Medieval Spanish poem *Coplas on the Death of My Father*, by Jorge Manrique (1440-1479), translated by Henry Wadsworth Longfellow:

"O let the soul her slumbers break, Let thought be quickened, and awake; Awake to see How soon this life is past and gone, And death comes softly stealing on, How silently!"

The words spoken at ca. 9:00 translate as follows: "Do you remember son? Here I also see you ..."

Mike Winkelmann

USA winkelmm@gmail.com www.beeple.com

The sixth instrumental video. (animate everything)

Steina

Iceland www.vasulka.org/

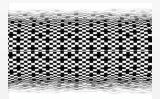
The software is Image/ine, theamplitude of his voice decides the speed of the clip, the singer is Trevor Wishart.



LIVE VIDEO PERFORMANCES

Chiaki Watanabe, images guest sound artist

US/Japan http://vusik.net/chiaki@vusik.net



1/x is a live visual music project that explores "one-bit" as an art expression (this is the second installment of 1/x). The emphasis is on using a single bit of information such as a one-bit (i.e., black and white) image and a one-bit note. In the title, "1" stands for one-bit expression, and "x" stands for the number of audio and visual inputs. In a minimalist framework, 1/x focuses on the essence of simplicity as the art of complexity through the interplay between kinetic images and experimental music. 1/x brings another dimension to abstract visual music.

A previous installment of 1/x, 1/3, premiered in New York in 2006 with two sound artists and has been screened internationally including the 2007 Visual Music Marathon (US), Punto y Raya Festival (Spain), Simultan Video Art Festival (Romania) and others.

S2: Simstim Squared

Marjan Moghaddam, images Adam Caine, music USA www.marjan.com marjan@marjan.com



52: Stimsim Squared is a live, improvised visual music performance by artist/ animator Marjan Moghaddam and guitarist/composer Adam Caine, using laptop-driven visuals alongside guitar and electronics. The visuals are 'played' live on stage and range from the hypnotic dance of materially ambiguous fluid forms to roaming explorations of dazzling 3D architectural structures and pulsing psychedelic patterns. The live guitar and electronic music encompass extremes of dissonance and rhythmic agitation contrasted with softer and more dynamic passages. The name is a reference to sensory recording and dissemination technology from 80's cyberpunk classic Neuromancer.



Daydream Mechanics V Sketch 3, 2006 12:10

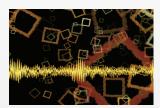


Jean Detheux, images Michael Oesterle, music Belgium/Canada jeand2@mac.com www.vudici.net

Daydream Mechanics V Sketch 3 started by accident. While working on the final editing of Liaisons with its music composer, Jean Derome (at the NFB studios in Montréal), Jean invited me to a concert by the Quatuor Bozzini (its cellist, Isabelle Bozzini, participated in the recording of the music of *Liaisons*). One of the pieces they performed that evening was Daydream Mechanics V, composed by Michael Oesterle. That music hit me like a ton of bricks, I immediately bought the CD and went home, determined to "play with it" and see what kind of images it would bring up. Little did I know what I was getting into: starting with a couple of frames pulled from Liaisons (they do come back as leitmotiv throughout the piece), I ended up making 12 minutes of animation in less than three weeks. I barely slept, this music possessed me. Sure, the animation was (very) rough, and it took many more months to bring it to where it is today, but the thrust was set right from the very beginning, so much was (does!) that music speak to me. In many ways, Daydream Mechanics V Sketch 3 is a relative of both Liaisons and Rupture. Not only because it was started from images pulled from Liaisons (and Rupture itself is all made from leftovers from Liaisons) but also, without my working on Liaisons in Montréal, I probably never would have heard Michael Oesterle's beautiful music.



2BTextures, 2008 3:08



UGOKU (excerpt), 2007 7:00



Continued

Bonnie Mitchell, images Elaine lillios, music USA http://immersiveinstallationart.com

This two-movement audio/visual experience leads viewers through abstract environments influenced by nature and life. The first movement, "Branches," reflects natural growth and evolutionary patterns often found in the structure of trees, river estuaries and other organic processes. The second movement explores breath, the indicator and moderator of life. Sonic breathing and gasping juxtaposed with an icy visual environment, metaphorically illustrate the fragility of our existence

Kasumi, images James Lauer, music kasumifilms@gmail.com www.kasumifilms.com

A bizarre legion of ever-evolving characters culled from hundreds of found footage sources move with heart-pounding, eye-popping precision to intense beats while kaleidoscopic arrays of colors explode like digital mescaline. This Warhol meets Escher hybrid film+animation unfolds in a surrealistic, multidimensional vortex that gives "rock the body" a new meaning. Every element of each image: movement, gesture, color, tempo, etc., is reanimated and synchronized to specific sounds in the music, creating layered and hypnotic psychotropic rhythms which in a normal state of consciousness would go otherwise unnoticed. Objects and characters are placed in unexpected contexts and tiers revealing entirely new structural formations, penetrating meanings and subliminal interpretations. "Like a Tool video on acid."

Barbel Neubauer

Austria/ Germany baerbel-neu@t-online.de www.spiralsmorphs.de

Metamorphoses of patterns and basic geometrical forms that were scratched on 35mm black film directly. The patterns of image and sound/music change their position in space and their meaning. *Passage* means the passages between the boarders of time and space. *Passage* also was my passage from analogue to digital work. Music: various drums and trumpet. Animation, director, composer, editing and sound engineering, production: Baerbel Neubauer

White Noise, 2007 9:45

Passage, 2002

8:03



Dennis H. Miller

USA dhmiller@comcast.net www.dennismiller.neu.edu

White Noise is a fast-paced work in which the flow of events is constantly disrupted. The title stems both from the use of noise as a means to generate the visual and musical elements, as well as to identify the color palette in the central section of the piece. With its constantly shifting perspectives and abrupt juxtaposition of elements, *White Noise* is intended to provide the viewer with an unsettling, though ultimately, satisfactory, aesthetic experience.

Sports and Diversions,

2005/6 4:00



[tides], 2006 5:55



Nebula, 2007 9:45, World Premiere



Bum Lee, images Erik Satie, music USA bumbarian@gmail.com www.bumlee.com

Sports and Diversions is a series of black and white animations inspired by *Sports et divertissements*, a collection of piano compositions written by Erik Satie in 1914. These animations take the themes of Satie's compositions as points of entry, and then leap into their own varied interpretations of the music.

Matt Costanza, images Missy Pfohl Smith, dance Abby Aresty, music USA mattcostanza@gmail.com mattcostanza.com

A video meditation on human movement, on water, and on our bodies. If surf were people, how would it move? The image was modified using a time-based effect developed and programmed by Matt Costanza, choreography and dance by SUNY Brockport Professor Missy Pfohl Smith, and music by Eastman composer Abby Aresty.

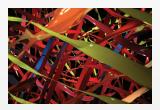
Suzie Silver and Hilary Harp, images USA Suzie Silver, sound suzie

suziesilver@cmu.edu www.harpsilver.com

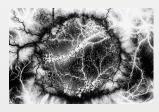
Nebula is a hallucinogenically immersive spectacle: a complex audio-visual composition that pays playful homage to science fiction fantasies. Captured for video by means of stop-motion photography, objects made of glass, glitter and tulle, are nestled within a kaleidoscopic flow of computer-generated imagery. Drawing from Thomas Wilfred's Clavilux color organs as well as experimental abstract filmmakers such as Mary Ellen Bute, and James and John Whitney, Nebula also recalls liquid light shows and the marvelous sightings of the Hubble Space Telescope. By enveloping the viewer in a multisensory experience absolutely other than our daily materiality, Nebula mines the wonder and pleasure at the root of both cosmology and camp.



Cinepainting, 2007 8:15



Energie!, 2007 5:00



Nanomorphosis, 2003 3:15



1.618, 2006 11:43



Simon Goulet, images Sandro Forte and Simon Bellefleu, music

Canada info@oiofilm.com www.oiofilm.com

The film needed eleven years to be completed. *Cinepainting* is an experience bringing together abstract painting and the cinematographic form into a moveable work of art: a "cinepainting." The movement of the liquid paint in flight is so fleeting that it is barely perceptible. Using film and computers, this movement can be observed and lets us discover the harmony within the chaos as it is being organized. It is a painting without a canvas where the liquid paint freely comes out of thin air. *Cinepainting : Experience OïO* is an experience made with the image of *OïO* with soundtrack by Sandro Forte and Simon Bellefleur. The perception of the film changes and we can see how the cinepainting can show a totally different universe for each of us.

Thorsten Fleisch, images Jens Thiele, music Germany snuff@fleischfilm.com www.fleischfilm.com

From a mere technical point of view the tv/video screen comes alive by a controlled beam of electrons in the cathode ray tube. For Energie!, an uncontrolled high voltage discharge of approximately 30,000 volts exposes photographic paper which is then arranged in time to create new visual systems of electron organization. Even though the result is abstract it tells a universal story older than the world itself.

Brian O'Reilly, images Curtis Roads, music USA clang@mat.ucsb.edu clang.mat.ucsb.edu

Nanomorphosis explores the changes of state in a stream of electronic sound particles. This stream is in evanescence–always renewing itself. By manipulation of various sonic processes, I was able to make the particles sound at times like a scattering of hard pellets, a flowing or bubbling liquid, or an evaporating cloud of steam. I would sometimes mark transitions by inserting a "barrier particle" (a kind of punctuation mark) into the flow. At these transition points one can hear particles ricochet off a barrier, while at the same time the ongoing stream changes character. This ricochet technique, which is nothing more than the replication of a particle, appears throughout *Nanomorphosis*. Another characteristic of the piece is the emergence of drones and melodic fragments, the artifacts of resonant filtering. The composition ends in a submerged state.

Scott Pagano, images BT, music USA scott@neither-field.com www.neither-field.com

1.618 is a graphic short film exploring a world of lush mathematically inspired animations that convey both the mood of the dramatic musical composition and the pure beauty that can be constructed through the logic and structure of numbers. From epic landscape cinematography studying the patterns of the desert to complex procedural organic 3D animation, this piece works to create a dynamically powerful yet seemingly effortless blend of sound and image. The music for 1.618 was composed by BT for his DVD album *This Binary Universe*.

Towards One, 1998 8:00

Maura McDonnell

Ireland mmcdonn@gmail.com www.soundingvisual.com



Towards One is a visual music work that explores in a single fixed media video art work the synthesis of the mediums of sound and image. The intent was to craft a very close relation between visual and aural elements. To do this, the concept of harmony became the thematic focus for the project. Harmony, both as an intention for the synthesis of the visual and music and also as a concept for the creation of the visual and music elements, became the building blocks for crafting the electroacoustic composition and the visual composition. The concept of harmony drew inspiration from the system of mathematical musical ratios devised by Pythagoras that explained the most harmonious music intervals. These mathematical ratios were explored in the music composition, both in the sound design and in the music composition, where at times, simple intervals are used. They were also explored in the visual composition, both thematically, such as linking ideas about number with ideas about the universe and the music of the spheres, and also in crafting harmonious visual structures and forms of musical harmony. For example, the organ pipes and the Tetractys section are visual forms created and worked with in the piece that directly represent in geometric form, the basic harmony laws of proportion. The piece aims to create a mathematical beauty in both music and image.

All the Possible Braidings, 2006

3:25



Betsy Kopmar, images Jami Sieber, music USA betsy@eyefusion.net www.eyefusion.net

In my work I try to find a common point of connection between painting, dance and animation.

Sculpture	11,	2009
2:22		



Joshue Ott, images Morgan Packard, music

USA joshue@intervalstudios.com superdraw@in.com

Audio/Visual duo Joshue Ott and Morgan Packard's work, while often quite abstract, daring and experimental, is informed by the discipline, structure and craft of their former study in more traditional art forms—figurative drawing, classical harmony and counterpoint, theater and jazz improvisation. The result is an immersive, engrossing multisensory experience with fascinating strength and agility.



Lajka's Memory, 2004 4:30



SENSORIUM, 2007 5:00



PIKA`PIKA, 2006 4:00



All That Remains, 2006 5:54



Continued

Eva M. Toth, images Hungary Gyorgy Kurtag Sr. & Gyorgy Kurtag pannonia@mail.datanet.hu Jr., music

Animation improvization inspired by the music of Gyorgy Kurtag Sr. and Gyorgy Kurtag Jr.

Karen Aqua, images Ken Field, music USA ken@kenfield.org kenfield.org

A hand-drawn experimental animation exploring the relationship between music and image. The film presents a vocabulary of abstract visual gestures, each tied to a specific musical motif, arranged in increasingly complex combinations to create a visual "score." Inspired by dance gestures and movements found in nature (water, tide pools), the film is a study of sound/motion synthesis. Directed/Produced by Karen Aqua & Ken Field. Animation: Karen Aqua. Music composed by: Ken Field. Post-Production: Francois Berelowitch. Recording Engineer: Andy Pinkham. Musicians: Mimi Rabson, 5-string violin; Leslie Moye, cello; Carol Namkoong, piano; Phil Neighbors, drums.

Takeshi Nagata and Kazue Monno

Japan eleqitel@tochka-factory.com http://tochka.jp/pikapika/

We took a photo of each image using long exposures and put them together to make them look like one animation. To work on this project, we went out to various places in Japan; parks, under the train track, the Tokyo Bay, school hallways, and so on. We got all sorts of friends in different fields together to work on this project. During the process, they got to know each other and discover new things. This is also about "communication." People can meet new friends as they create a piece of art very easy which brings everyone happiness. We spend a very enjoyable evening at the workshop and the party through this animation.

Stephanie Maxwell, images Michaela Eremiasova, music USA sampph@rit.edu meremiasova@yahoo.com www.rit.edu/~sampph

All That Remains is a collaborative work by the animator (Stephanie Maxwell) and the composer (Michaela Eremiasova), from concept through realization. It is an intricate mosaic of sequences of animated abstract images and musical passages that create a chaotic yet coherent and tightly choreographed portrayal of figurative matter in perpetual decomposition. The sound consists of dynamic and evolving patterns of music textures and phrases. Dense masses of granular particles often converge to create progressive patterns of movement, which alternate with recurring looped vocal passages. The animated imagery was created through a multitude of experimental processes, including video 'rephotography' of direct-on-35mm-film animated sequences (painting and etching imagery direct on 35mm clear and black film stocks), object animation, handmade animated mattes, and 'animated rephotography' of live action sequences. The imagery was composited and edited in digital post production.

NYDS AD GOES HERE

Guest Curators

Larry Cuba, a pioneer in computer art, produced his first computer-animated film in 1974. The following year, Cuba collaborated with John Whitney, Sr. programming the film *Arabesque*.

Cuba's subsequent computer-animated films, *3/78 (Objects and Transformations), Two Space*, and *Calculated Movements*, have been shown at film festivals in cities throughout the world—including Los Angeles, Hiroshima, Zagreb and Bangkok—and have won numerous awards. Cuba's been invited to present his work at conferences on computer graphics and art (such as SIGGRAPH, ISEA, Ars Electronica, Art and Math Moscow, etc.). His films have been included in exhibitions at New York's Museum of Modern Art, The Whitney Museum, The Hirshhorn Museum, The San Francisco Museum of Modern Art, The Art Institute of Chicago, The amsterdam Filmmuseum and The Pompidou Center, Paris.

Cuba received fellowship grants from the American Film Institute and The National Endowment for the Arts, and was awarded a residency at the Center for Art and Media Technology Karlsruhe (ZKM). He has served on the juries for the SIGGRAPH Electronic Theater, the Montpellier Festival of Abstract Film, The Ann Arbor Film Festival, and Ars Electronica.

In 1994, he founded The iotaCenter, a non-profit organization dedicated to the art of visual music and abstract animation. More information can be found at www.iotacenter.org and www. well.com/user/cuba.

Bruce Wands has been working in digital media and music for more than thirty years as an artist, writer, and curator. His new book, Art of the Digital Age (2006), was recently published by Thames & Hudson. He has lectured, performed, and exhibited his creative work internationally, including Europe, Japan, Korea, Hong Kong and Beijing, China. Recent lectures and exhibitions include Electronics Alive IV, CHArt 2006, SIGGRAPH 2006, BUDI 2005 in Pusan, Korea, the First Beijing International New Media Arts Exhibition, and the SIGGRAPH 2003 Art Gallery and Traveling Art Show. *Time Out New York* named Bruce as one of the "99 People to Watch in 1999." He is the Chair of the MFA Computer Art Department and the Director of Computer Education at the School of Visual Arts in New York. He is the Director of the New York Digital Salon, an international digital art organization that celebrated its 10th anniversary in 2003 (www. nydigitalsalon.org). His web site is www.brucewands.com.

NEU AD HERE???

ARTIST(S)

HOUR 1 (toAM - 11AM) STEPHANIE MAXWELL, ALLAN SCHINDLER GERHARD DAURER FRAN HARTNETT GORDON MONRO DONEBESTDONE HARVEY GOLDMAN, JAMES BOHN BILL ALVES JOHN BANKS, FRITZ HEEDE ARIE STAVCHANSKY, PER BLOLAND DAMIR CUCIC VISHAL SHAH, ADAM STANSBIE FREYA KAREN AQUA, KARLO TAKKI

HOUR 2 (11AM - 12PM)

PHILIP SANDERSON BARRY MOON JEAN DETHEUX, JEAN DEROME ALEXANDRE MILAGRES, ADILSON SILVESTRE, ODON VASCON, FELIPE ROSSI STEPHAN LARSON REBECCA RUIGE XU, YANJUN HUA JONATHON KIRK ADRIANO ABBADO TINA FRANK JUN WON KANG, DUK-SOO KIM PETER V. SWENDSEN MARGARET SCHEDEL, NICK FOX-GIEG MICHAEL THEODORE KEUM-TAEK JUNG, CHRISTOPHER BRAKEL **IUSTIN RUBIN**

HOUR 3 (12PM - 1PM): HISTORIC WORKS HANS RICHTER HANS RICHTER MARY ELLEN BUTE OSKAR FISCHINGER NORMAN MCLAREN HY HIRSH

ROBERT BREER JOHN WHITNEY LEN LYE LEN LYE

HOUR 4 (1PM - 2PM): VISUAL MUSIC FROM THE IOTACENTER, CURATED BY LARRY CUBA CHRIS CASADY

PAUL GLABICKI ROBERT DARROLL OERD VAN CUJILENBORG YING TAN, JEFFREY STOLET JEFFRES EGAN, JAKE MANDEL MONDI BRET BATTEY LARRY CUBA, LARRY SIMON, CRAIG HARRIS, RAND WEATHERWAX ADAM BECKETT

HOUR 5 (2PM - 3PM)

PIERCE WARNECKE MAURICE WRIGHT BENTON-C BAINBRIDGE, BOBBY PREVITE FRIED DAEHN ICONISH NICK COPE, TIM HOWLE LEONARD ELLIS LIANA ALEXANDRA JIM ELLIS IMMERSIONS WITH EMILE TOBENFELD TINA FRANK GEORGE STADNIK

FILM

TIME STREAMS ADD.VALUE 5 MORE NAVIGATING THE PEARL SYSTEM DISSONANT PARTICLES I HAVEN'T READ A BOOK IN AT LEAST FIVE YEARS UNDULATION STATIC CLING AFTERLIFE GRAVESHIFT MEMORIES OF TAPE SEEK ASSISTANCE AFTER YOU WERE GONE KAKANIA

QUADRANGLE

CLICKS & TONES RUPTURE POESIA OPUS 42 (POETRY OPUS 42)

DISCORD: METAL AND MEAT RAIN I'VE GOT A GUY RUNNING VARIAZIONI CHRONOMOPS ARIRANG A SUDDEN CHANGE IN THE CONSISTENCY OF SNOW WHIRLITZER COLOR DREAM NO. 246 O (CIRCLE OF LIFE) LA ZARABANDA

RHYTHM 21 (1921) RHYTHM 23 (1923) RHYTHM 11 LIGHT (1934) MOTION PAINTING NO. 1 (1947) BEGONE, DULL CARE (1949) CHASSE DES TOUCHES (1959) BLAZES (1961) ARABESQUE (1975) PARTICLES IN SPACE (1966) TAL FARLOW (COMPLETED POSTHUMOUSLY, 1980)

RICE SONG FIVE IMPROVISATIONS FENG HUANG DJIZZAZZY WICKED PATHS, CRUEL DESERTS BATI DOMINANCE ZEUS AUTARKEIA AGGREGATUM CALCULATED MOVEMENTS

KITSCH IN SYNCH

RETZ/DISTRANS SEVEN CARTOONS DARK STAR SCORE VELOCITY SON ET LUMIÈRES WALKING TUNE VARIATIONS 4 SCROGGINS BEACH ANOTHER KIND OF BLUES PITBUDP SUNSPOT

ARTIST(S)

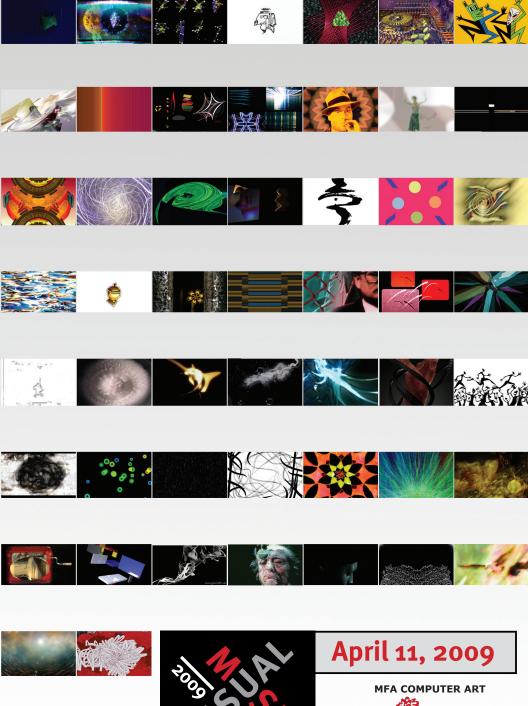
STEPHANIE MAXWELL, MICHAELA EREMIASOVA

FILM

HOUR 6 (3PM - 4PM)			
NATHANIEL RESNIKOFF	EREV SHEL SHOSHANIM / KATE & ROSE'S		
JANENE HIGGINS, ELLIOTT SHARP	TUNNEL VISION		
MICHAEL CARTER, UPSIDE DOWN UMBRELLA	WELL		
DR. WOOHOO!, BIT SHIFTER	DR. WOOHOO & BIT SHIFTER: ACTIVATION THEME		
MALCOLM SUTHERLAND	BIRDCALLS		
MICHAEL SCROGGINS, BARRY SCHRADER	1921 > 1989		
DOUG DURANT	STILLPOINT		
MARK ZAKI	DANS L'OMBRES DE SOI-MÊME		
TOM JOBBINS	ASPERITY		
BRIAN EVANS MIKE ALMOND, MATHEW ADKINS	PIPILO CORTEX		
MIRE ALMOND, MATTEW ADKINS	CONTEX		
HOUR 7 (4PM - 5PM)			
SERBAN NICHIFOR	INFINITE SONG		
DAVID RIMMER	GATHERING STROM		
WILFRIED JENTZSCH	KYOTO BELLS		
ELSA JUSTEL	DESTELLOS		
JEAN DETHEUX, JEAN DEROME	LIAISONS		
JIM ELLIS, AKSAK MABOUL	WHISPER		
SYLVIA PENGILLY, MICHAEL RHOADES	RELEASE!		
HOUR 8 (5PM - 6PM): ABSTRACT VISUAL MUSIC FROM THE NEW YORK DIGITAL SALON AND THE SCHOOL OF VISUAL ARTS MFA COMPUTER ART DEPARTMENT CURATED BY BRUCE WANDS.			
SCOTT DRAVES	165 STAR OASIS		
ROBERT SEIDEL	_GRAU		
ISABEL MOYANO, CRISTOBAL BARRAGAN	BOCETO		
SEAN CAPONE	THE PLAIN SILVERY SIDE OF THIS DISC		
RUMI HUMPHREY	PHASE_TRANS #3		
SCOTT NYGERES	FLOW		
SAMANTHA KRUKOWSKI, BRUCE PENNYCOOK	CHALAZAE		
PURVA MANDE	"I" THE BEING		
VIVEK PATEL	FOUR PLAYS		
NANCY HERMAN	WHAT MIGHT HAVE BEEN		
MARCO DINOIA	PIXELSOUND		
ANDREW GONCALVES	SOUND STUDIES		
IOE TEKIPPE	MODAL DRAWING TOY		
4 ·			
TELCOSYSTEMS: DAVID KIERS, GIDEON KIERS, LUCAS VAN DER VELDEN	META_EPICS, MODULE 2		
SEMICONDUCTOR: RUTH JARMAN, JOSEPH GERHARDT	200 NANOWEBBERS		
HOUR 9 (6PM - 7PM)	DEAMCCADE		
VIBEKE SORENSEN, RAND STEIGER	DREAMSCAPE		
DAVID EHRLICH, TOM FARRELL	ETUDE		
PETER BYRNE, ETHAN BORSHANSKY	THEREABOUTS		
RAJMIL FISCHMAN	¿TE ACUERDAS HIJO? (DO YOU REMEMBER SON?)		
MIKE WINKELMANN	IV.6		
STEINA	TREVOR		
HOUR 10 (7PM - 8PM): LIVE VIDEO PERFORMANCE			
CHIAKI WATANABE			
MARJAN MAGHADDAM, ADAM CAINE	S ² : SIMSTIM SQUARED		
HOUR 11 (8PM - 9PM)			
JEAN DETHEUX, MICHAEL OESTERLE	DAYDREAM MECHANICS V SKETCH 3		
BONNIE MITCHEL, ELAINIE LILLIOS	2BTEXTURES		
KASUMI	UGOKU (EXCERPT)		
BARBEL NEUBAUER	PASSAGE		
DENNIS H. MILLER	WHITE NOISE		
BUM LEE, ERIK SATIE	SPORTS AND DIVERSIONS		
MATT COSTANZA, MISSY PFOHL SMITH, ABBY ARESTY	[TIDES]		
SUZIE SILVER, HILARY HARP	NEBULA		
HOUR 12 (9PM - 10PM)			
SIMON GOULET, SANDRO FORTE AND SIMON BELLEFLEU	CINEPAINTING		
THORSTEN FLEISH	ENERGIE!		
BRIAN O'REILLY, CURTIS ROAD	NANOMORPHOSIS		
SCOTT PAGANO, BT	1.618		
MAURA MCDONNELL	1.618 TOWARDS ONE		
BETSY KOPMAR, JAMI SIEBER	ALL THE POSSIBLE BRAIDINGS		
IOSHUE OTT. MORGAN PACKARD	SCULPTURE 11		
EVA M. TOTH, GYORGY KURTAG SR., GYORGY KURTAG JR.	LAJKA'S MEMORY		
KAREN AQUA, KEN FIELD	SENSORIUM		
TAKESHI NAGATA	PIKA		

ALL THAT REMAINS

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Northeastern University