Sounding Images and Imaging Sounds - Audiovisual Interactivity in Performance

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The following text is an adapted chapter from *Seeing Sound: Visual Listening in Contemporary Sound Performance*. It examines the incorporation of sound and image in performance as one of many strategies employed by artists in the live presentation of sound-based works. Following from the argument that sound-based performances are inherently visual, this text considers contemporary audiovisual practices as subjugated to the dominance of vision in the hierarchy of our modern sensorium. Examining practices in the arts and in music that have attempted to unite the auditory and the visual, this section contextualizes audiovisual practice within several historical trajectories. It relies on film theory and criticism to deconstruct the relationship between auditory and visual perception in contemporary work, which allows for a richer and more complex understanding of the interaction between sound and image in performance.

All sound performance entails some form of visual listening as audiences construct relationships between what they see and what they hear.[1] Particularly in works where artists use sound and image in performance, the combination of the visual and the auditory would seem to operate at cross-purposes, effectively eradicating the possibility for sound to hold its ground. So when artists use visual imagery, most commonly in the form of video projection, what are the effects on audiences' auditory perception? As audiences perceive a sound work within the context of visual imagery, what kinds of visual listening come into play? Can artists actually use visual material in their performance practices to enhance the auditory? How can artists incorporate visual material effectively in performance and work against the tendency for sound to exist as secondary, or often in service of, the image?

Prior to addressing these questions, it must be noted from the outset that though the works discussed are often termed "audiovisual," my interest and

focus in this piece, and in the larger project, has been on works that are primarily sound-based or have a sound focus beyond functioning as a support for visual material (as in narrative cinema, for example). In other words, even though many of these works consist of carefully considered audio and visual components, the sonic elements are characteristically primary, rather than points of identification. Maintaining this distinction is an inherent challenge in a chapter about audiovisual practices; however, it is important to note that all contemporary works considered in this text have been performed within sound art and experimental music contexts.

Further, I engage the term audiovisual because it suggests simultaneity in this type of performance experience, even though the wholeness of that experience will be inevitably deconstructed in the following analysis. As we develop an understanding of how the two media are perceived, the visual must be separated from the auditory in order to better understand the terms of their interaction. So, while the following investigation often addresses the two media as separate entities, it must be recognized that the actual experience of these entities is first a total sensory experience (though primarily audiovisual), before it is one made up of varying parts.[2]

In many performances, artists and musicians work with sonic and visual media to construct a particular aesthetic or generate a particular effect. Imagery may be used to interpret or visually express the audio. In other instances, visual material may be positioned as a counterpart to the audio, where the two are meant to equally share audience perception. Regardless of the intended relationship between sound and image, audiences' experience of the work will be based on numerous cultural and perceptual factors that extend beyond the work itself and artistic intention. Audience perception cannot be accounted for at the level of the work. As audiences, we bring a set of assumptions and expectations about the relationships between sound and image that have been cultivated through both lived and mediated experience. More specifically, it is here that the dominance of vision within the hierarchy of sensory experience reveals itself in a multitude of ways. No matter how sound and image are constructed in a performance, audiences are first and foremost, visual listeners.

Particularly in audiovisual performance, audiences often perceive the relationship between sound and image similarly to the way in which they perceive that same relationship in narrative cinema. In both sound performance and movie theaters alike, audiences typically sit in darkness, face forward, watch a screen with projected images, and listen to sounds amplified through various speakers throughout the room. Thus, film theory provides a useful framework for understanding relationships between sound and image in performance, opening possibilities for a discussion about the way in which sound performance complicates and shifts that relationship. It also supplies vocabulary for the various types of listening predicated upon the relationship between what an audience hears and what an audience sees.

In all audiovisual works, audiences experience some sort of relationship between sound and image, yet this relationship is fundamentally built upon preconceived associations. In his book *Audio-Vision: Sound on Screen*, Michel Chion describes this phenomenon as "audiovisual illusion," which is "located first and foremost in the heart of the most important of relations between sound and image."[3] Audiences accept the idea of the audiovisual illusion and therefore approach their listening (in cinema and in audiovisual performance) with the idea that there is a purposeful, or even real, link between sound and image. It is as if this audiovisual illusion precedes any relationship between sound and image in the sense that audiences assume or accept the illusion that what they see on screen relates to what they hear.

By accepting this "illusion," Chion suggests that most audiences then listen "causally" in relation to what they see, a common form of listening employed in everyday experience defined as "listening to a sound in order to gather information about its cause (or source)."[4] Although causal listening functions with varying levels of complexity, in its simplest form, it fulfills perceptual expectations as we interact with our environment. For example, as I place my fingers on the keyboard while I write this, I expect to hear staccato tapping sounds, generated by my fingertips and the depression of the plastic keys. Subsequently, I recognize these sounds as a consequence of my actions.

In the more complex forms of causal listening, we may not be able to recognize a particular or unique sound source, yet may only be able to obtain a generalized or characteristic understanding of it. One often encounters this form of causal listening when a sound's source is not immediately visible. Causal listening in this instance is therefore based on categorical recognition and context. If one were to hear a loud, screeching sound on a busy street, yet was unable to see its cause, it may be assumed that the sound was generated from rubber car tires skidding across the pavement. As Chion notes, "even without identifying the source in the sense of the nature of the causal object, we can still follow with precision the *causal history* of the sound itself. For example, we can trace the evolution of a scraping noise

(accelerating, rapid, slowing down, etc.) and sense changes in pressure, speed, and amplitude without having any idea of *what* is scraping against *what*."[5] Based then, on the recognition of the causal history, we can place the sounds into a category of sounds and potential causes. These general determinations can lead to increasingly specific assumptions about a sound's source as one considers the context or environment in which the sound is heard, even if the source remains invisible throughout one's experience.

In those instances where the source is visible, as in the first example where my fingertips generated tapping sounds as I pressed the keys on my computer keyboard, an almost immediate relationship develops between what is seen and what is heard. Yet it is the commonality or simplicity of this relationship that is often taken for granted. Chion warns that because such commonplace and simultaneous listening often goes unnoticed, it is this form of listening that can quickly become deceptive and most easily influenced by other factors.[6]

So how does causal listening function in audiovisual performance, where sounds and images aren't linked with the narrative objective of cinema? Even though artists construct specific relationships between what an audience sees and what an audience hears during their performance, do audiences actually listen causally? How

do they draw connections between the visual imagery and the audio when works are nonrepresentational, nonlinear, or when they lack a larger plot within which those connections might be understood?

In cinema, Chion identifies sound as "synchretic," in that it provides immediate information about an image.[7] Yet when that immediate relationship between the auditory and the visual is not direct or causal, as in many audiovisual works, the perceived relationship between sound and image becomes one based on the notion of "added value." According to Chion, added value is the "expressive and informative value with which a sound enriches a given image so as to create the definite impression, in the immediate or remembered experience one has of it, that this information or expression 'naturally' comes from what is seen, and is already contained in the image itself."[8] We can extend the notion of added value to experimental music and sound art performance. Sounds can still provide information about an image, even if both the image and the sound are nonrepresentational. It is here where the process of added value creates an *association* between the sound and the image. In fact, this association may appear natural, even though it is likely based on a variety of other (unnatural or unreal) factors. Interestingly, audiences are so familiar with the synchretic nature of sound that mere associations, rather than actual

linkages between sounds and images, are easily accepted in the perception of experimental audiovisual work.

There is also another type of listening that shapes the way in which we construct relationships between the visual and the auditory. In somewhat of a contrast to causal listening, the idea of "reduced listening," introduced in Pierre Schaeffer's *Treatise on Musical Objects* in 1960, accounted for a new, perceptual experience of sound based on the type of distancing or sound-source separation experienced when listening to a radio broadcast or to an audio recording.[9] *Reduced* listening was considered the "listening mode that focuses on the traits of the sound itself, independent of its cause and of its meaning."[10] Schaeffer's interest was not in one's ability to determine the origin or source of perceived sounds. Instead, Schaeffer suggested a type of listening concerned with perception and "listening to sonorous forms without any aim other than that of hearing them better, in order to be able to describe them through an analysis of the content of our perceptions."[11]

In audiovisual performance, such a reduced form of listening proves difficult, as the nature of the work typically implies a relationship between the sound and its corresponding visual imagery. However, Schaeffer's ideas remain crucial, particularly in his aim toward trying to "hear sounds better." What

if there was some way that visual material could allow audiences to hear more or hear with greater precision? What if artists found a way to construct a relationship between sound and image that actually encouraged audiences to focus on the sound (or at least pay more attention to it)? What if artists were able to find ways to create an audiovisual experience where sound could be relieved of its responsibility to provide information about the image?

As audiences familiar with film and television, we often readily fill in the blanks between what we see and what we hear in performance. We are able to make associative connections, often deeming them aesthetic or provocative, simply because we are familiar with making those types of associations between sounds and visual images. Even though we can recognize that there may not be a causal link between an abstract video image and an abstract sound, we are adept at forging relationships between the two.

It is this linkage that is of great importance to a type of performance interested in sound. As stated earlier, the audiovisual work discussed here typically lacks a narrative component, and it will be argued that when artists find ways to create real and evident relationships between sound and image, they position their work more effectively in terms of how audiences will listen. Such a claim may seem inherently contradictory, as it could be

read as advocating for causal listening, which I have positioned as primarily visual rather than auditory. However, I am merely advocating for a type of audiovisual practice that considers the way audiences look and listen; a practice that finds a way to address the inevitability of visual listening in the creative process. As artists locate methods for constructing actual relationships between what is seen and what is heard, their work can encourage new forms of listening; when artists construct arbitrary links between the auditory and the visual, works tend to fall victim to the hierarchy of sensory experience and to visual listening. If sound and image are detectably linked, sounds may begin to be considered on different terms. Instead of functioning in service of the image, the image may begin to function in service of sound. Or in some cases, sound and visual imagery may be perceived more equally, with neither medium secondary to the other.

There are numerous possibilities in the way in which we can perceive sound and image in combination and forge relationships between the two media. Not only do we experience works similarly to our experience in cinema, but also in many cases, we come to our experience in sound performance based on cultural and historical precedents set by artists and musicians who have previously been interested in exploring those relationships in their practice. In

order to explore contemporary performance, we must first contextualize it within audiovisual experimentation throughout the twentieth century. Although the contemporary audiovisual performances discussed in the latter portion of this chapter are a relatively recent phenomenon, artistic interest in the relationship between the auditory and the visual can be located historically in both visual arts and music practice. Efforts to unite the two media have appeared in numerous forms, involving processes of representation, mimicry, analogy, physical transformation, and interaction.

VISUAL ARTS AND MUSIC FROM 1900-1970

Throughout the twentieth century, painters, filmmakers, and musicians have worked toward uniting visual and auditory experience. In particular, early modernist painters developed an interest in music, seeing parallels in their own experimentation with visual abstraction. To these artists, music "epitomized a new ideal of what visual art could become. No longer content simply to reproduce the visible world, painters instead sought to endow their canvases with the emotional intensity, structural integrity, and aesthetic purity that they attributed to music."[12] In addition to using musical analogy in their work, many of these artists' aesthetic practices developed in response to an interest in synaesthetic experience,

in which a sensory perception of one kind manifests itself as a sensory experience of another kind. In particular, artists and musicians explored correlations between their experiences of seeing colors while hearing certain sounds. Paul Klee, Wassily Kandinsky, Morgan Russell, Arthur Dove, among others, engaged synaesthetic ideas and musical analogy in their abstract paintings, with music often functioning as subject matter, as inspiration, and even as a formal model. For these "visual musicians," the characteristics of music, particularly as a time-based, non-representational medium, allowed painting to move closer toward evocation and expression.[13/14] Similarly, musicians such as Arnold Schoenberg, Alexander Scriabin, and Claude Bragdon created compositions that were performed with light and visual imagery to further the correspondence between sound and color and to visually portray their music.

Painters and musicians also attempted to merge their practices through the creation of various instruments and technologies that could produce what came to be known as "color music." Just prior to the turn of the twentieth century, artist Alexander Wallace Rimington created the first functional "color organ," designed on "the presumed analogy between the color spectrum and the musical scale. His color organ operated with a five-octave keyboard that activated

projected, moving colored lights beamed from arc lamps through aniline-dyed filters onto a white screen or curtain."[15] Although it produced no sound, color organ performances would often accompany music, which offered an interpretation of the colored forms. For the following twenty years, numerous American and European artists patented color-instruments produced for performance.

The color organ seemed to anticipate abstract filmmaking practices, which aimed to achieve music's characteristic and sought-after temporality. Filmmakers such as Hans Richter, Viking Eggeling, and Harry Smith utilized the developing technologies of the soundtrack and color film to create visual and audiovisual compositions that resembled abstract painting, yet introduced movement and temporality to its static form. It was during this period that sound and film began to interact in a new direction – instead of music influencing the creation of visual art, artists like Oskar Fischinger and James and John Whitney developed an interest in turning visual elements into sound. Fischinger recorded directly onto a film's soundtrack, amplifying geometric shapes that had been painted directly onto the scrolls.[16] In the early 1940s, taking the process even further, brothers James and John Whitney developed a system using pendulums and a camera to create sound from recorded motion,

which allowed them to generate a four-octave range of electronic tones. According to Kerry Brougher in "Visual Music Culture," the Whitneys' films became "a completely new type of visual music; in both appearance and sound the works are electronic, aggressive, grating, and almost ruthless in their assault on the eye and ear. The images and sound seem inextricably linked. One is not the result of the other: rather, sound is image, and image sound, with no fundamental difference."[17]

While Brougher clearly recognizes both the technological and aesthetic impact of the Whitneys' experiments, the ease with which she equates sound and image requires brief consideration.[18] For the Whitney brothers, the images produce the sound, but by no means are they "the same." The relationship between the sound and image is one of physical translation. Sound is never image and image never sound; both in a physical sense and in the sense that though we perceive the two simultaneously, they remain distinct sensory modalities. Although they are inextricably linked, sound follows the image since it is in fact produced by visual motion. Further, Brougher's statement reflects a wider (mis)understanding of the relationship between sound and image, particularly as it developed in both the arts and popular culture in following decades. Combinations of image and sound are so easily equated and easily perceived that the inherent

differences between the two, as well as the relationship between the two, often go unnoticed in our perception and in our critical analyses.

This convergence of sound and image as an artistic experience became increasingly widespread as works began to be shown outside of strict artistic contexts like galleries and museums. In fact, Judith Zilczer notes that even in the early stages of color music, its hybrid nature "posed problems both for its presentation and reception. Merging aspects of the theatrical and visual arts, the new genre led early practitioners to model their art on the world of music. Hence performances of color music most often appeared in recital at concert-hall venues rather than in gallery settings."[19] This shift out of the gallery and into music clubs and spaces inspired the development of auditory and visual works meant to provide immersive experiences for their audiences. For example, in 1957, filmmaker Jordan Belson and electronic composer Henry Jacobs began a series of audiovisual performances known as the Vortex Concerts. Using the Morrison Planetarium in San Francisco, artists and composers created over 100 performances that brought together various sound and image electronic technologies into a three-dimensional environment.

Developments in performance and the creation of audience experience continued to take visual arts into the

realm of music, thus reversing the initial direction of an artistic practice that sought to bring music into the visual arts. By the late 1950s and throughout the 1960s, rock and roll performance and the phenomenon of the psychedelic light show achieved widespread cultural attention. Driven by an interest in abstraction, music, and a rejection of the materialist art object, the light show phenomenon occurred with relative simultaneity in cities such as London, New York, Los Angeles, and San Francisco. Many of the light shows also functioned as a backdrop during rock music concerts. For example, Janis Joplin and the Kozmic Blues Band played in front of a projection made by The Joshua Light Show in 1969, and the band Soft Machine performed amidst a liquid light environment made by Mark Boyle and Joan Hills in 1967 (figure 1).[20]

The light show was equally inspired by electronic music, particularly in San Francisco. Artists working as part of the San Francisco Tape Music Center, including Pauline Oliveros, Ramon Sender, Morton Subotnik, Terry Riley, and Steve Reich, worked with multimedia artist Tony Martin to create a series of happenings where Martin would use liquid projections, overhead projectors, and films to create a visual environment for the musicians' electronic sounds.[21] Although light shows dissipated by 1970, their development, along with mid-century abstract cinema,

set lasting precedents for the performance practices of sound artists and experimental musicians in the decades that followed. Experiments interested in exploring the relationship between sound and image, as well as visual arts and music, not only opened artistic practice to audiovisual ideas, but opened pathways between visual artists and musicians, fostering a cross-pollination between the interests of two artistic fields that continues to enrich contemporary work.

CONTEMPORARY AUDIOVISUAL PRACTICE

Influenced by a century of artistic interest and development in the relationship between sound and

image, contemporary artists must continue to negotiate the complicated and inevitable interplay between the visual and the auditory in their work. While the combination of sound and visual imagery in performance is primarily based upon the aesthetic interests of the artist or musician, these aesthetic decisions must be understood more complexly and considered within the context of auditory and visual perception. In other words, audiovisual practices are ultimately based on the intention to shape perception – to establish a relationship between what an audience sees and what an audience hears. It is this relationship that deserves further consideration, as it is predicated on an audience's ability to construct correlations between the visual and sonic components of a work. Again, these relationships are not merely the result of how an artist positions the two media in the context of a performance. Rather, audiences experience the work based upon broader cultural and perceptual assumptions about the relationship between sound and image. Performances must be considered both in terms of the work itself and in terms of the parameters of perception.

Associative links between sound and image seem to be most common, particularly in sound-video work. For example, in Tom Recchion and Jonathon Rosen's recent performance at the Redcat in Los Angeles, Rosen mixed a variety of film loops and scenes while Recchion performed the sound by using prerecorded tape loops, keyboards, and effects.[22] Rosen's imagery varied wildly, from simple black and white shape manipulations to B-movie horror scenes to colorful, graphic floral depictions. Recchion's auditory work also shifted throughout the set, from loud, low-frequency bursts to soft, droning layers of strings. However, at no point were the images and sounds ever causally synched. Rosen and Recchion were certainly working to find ways to make the sounds and images relate to each other, but not in the sense that the sounds became literal representations of the images or vice versa. The artists created associative relationships between their individual works, relationships that were based more on temporality, loudness, or texture, rather than having sounds replicate "actual sounds" that the object or person represented in the image might make in "real life."

Interestingly, there were instances where Rosen repeated imagery during the show. Yet, that same imagery was experienced in each of these instances with different sounds. The inconsistency between Rose and Recchion's audiovisual pairings highlighted the associative nature of the sound-image interaction to the extent that it seemed somewhat arbitrary, and at times, even gratuitous, as if the two were brought together without a noticeably constructed aesthetic purpose.

Rose and Recchion's performance is just one example of how the aesthetic impulse to associatively link sounds and images in performance has persisted since the psychedelic light shows of the 1960s. However, it is must be recognized that the associative convergence of sound and image most often positions the auditory as secondary when it comes to attentiveness and perception.

Before performing a re-creation of an early work at the 2004 San Francisco Electronic Music Festival, Ramon Sender, who co-founded The San Francisco Tape Music Center in the 1960s, told the audience (albeit without an explanation why) that during his early sound experimentation it became immediately apparent that concerts were lacking a visual element and that there was a need for live projection. He then performed the early work, which consisted of a video projection of a series of colorful, psychedelic graphics that spiraled inward toward the center of the screen. This continuous kaleidoscopic interweave of whirling shapes and colors seemed to swallow the accompanying sound composition, even though its intention was merely to provide audiences with something to watch while listening. Only by closing my eyes could I detach the sound from the overarching visual sensation of the projection. Although Sender's work acknowledges the intimate relationship between hearing and seeing, his performance actually showed that by giving an audience associative imagery, you encourage a type of listening that is more visual than it is auditory. Ultimately, these types of audio-visual interactions position sound as subservient to the image in their mimicking of the relationship between sound and image in narrative cinema. In cinema, sound is typically used to serve the visual imagery onscreen, providing auditory cues and information to the viewer. Even when performers intend to privilege listening, and use visual imagery to "add to" the sound, they must be aware of how visual stimuli can influence and often detract from auditory perception.

Although many artists use visual imagery in associative or gratuitous ways in performance, other artists have devised techniques that attempt to construct alternative relationships between sounds and images, pairings that aim at privileging the listening process and dismantling the hierarchical relationship between sound and image. For example, artists such as CMAU and Sensorband use "revelatory" imagery, where the visual elements of their performance are aimed at showing or revealing aspects of their sonic processes. Artists such as Yuko Nexus6 and Mariko Tajiri, as well as Scott Arford, construct physical translations between audio

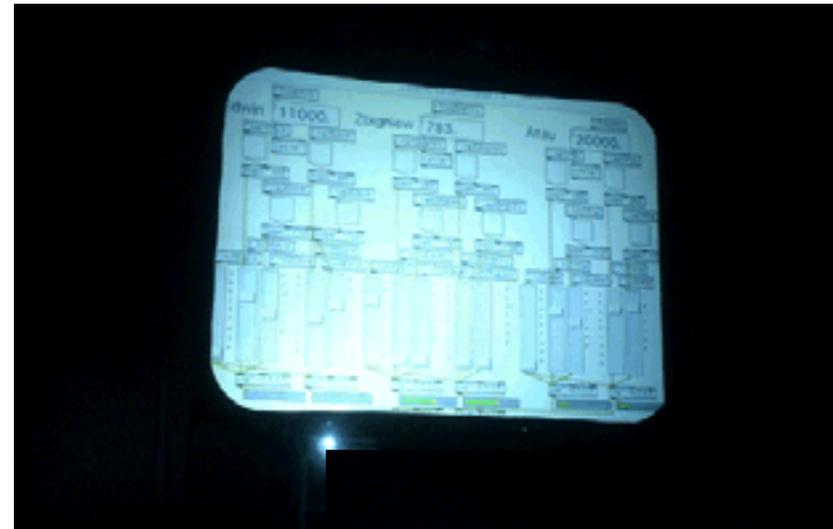and video as integral features of their performances.

Potentially a response to the mystification caused by the increasing use of complex technology in sound performance, many contemporary artists seem interested in finding ways to minimize the inevitable concealment of their artistic process that results from performing with high-tech equipment such as laptops and digital processing units. For example, Sensorband, consisting of artists Edwin van der Heide, Zbigniew Karkowski, and Atau Tanaka, performed their set at the 2002 Activating the Medium Festival at the San Francisco Museum of Modern Art, while a projection of their MAX/MSP patch, a software program that allows artists to manipulate multimedia using a graphic interface, was displayed on a large screen beside them (figures 2-4).

While this visual revealing of the software program used to create Sensorband's audio was likely made visible to the audience as an attempt to address "themes of physicality and human control in relation to technology," it becomes questionable whether or not the projection actually demystified their use of technology for the audience.[23] Perhaps for those audience members familiar with the software program, the projected MAX/MSP patch offered useful information as to how the artists interacted during their set; how the actions of each musician had an effect

on the sounds they created. Yet it provided a language of sound legible only to some, but not to others. For the inexperienced MAX/MSP viewer, the projection merely offered a complicated graphic interface. The intricate patterns of lines, text boxes, and sliders cannot fulfill the desire for information they create. Thus, these audiences attend to the projection despite the fact that it does not convey useful information. It encourages them to search the projected graphics for a causal representation of what they hear, even though what they hear cannot in fact be represented on-screen.

Sensorband's projection also has the potential to shape how the audience interprets the nature of the sound. The MAX/MSP patch appears colorfully minimal, yet graphically complex, with its intricate black lines neatly spread over the white background. In fact, its aesthetic mirrors the type of design often used in print material associated with experimental electronic music culture, such as posters, magazine design, and CD cover art.[24] The visual environment of the performance, although originally intended as revelatory, also becomes associational. The overall visual aesthetic adds to the perception of the auditory, despite its initial purpose.

In a similar performance at SomArts Cultural Center in San Francisco for the 2004 San Francisco Electronic Music Festival, artists CMAU, a

Figures 2-4 - Sensorband performing at The San Francisco Museum of Modern Art, February 2002. Photography by Joe Johnston ©2002

quartet comprised of Doug Michael, Sudhu Tewari, Kendra Juul, and Mark Bartscher, used a video projection to expose aspects of their creative process while performing. Similar to artist-audience configurations in most venues, CMAU performed on the stage, while the audience sat in chairs, on the floor, and in bleacher seats set toward the back of the hall. While three members of CMAU tinkered with various homemade instruments (one artist was making sound inside some sort of porcelain bath tub) and found objects, the remaining artist worked with samples and live computer synthesis and processing. A fifth person stood onstage alongside the group with a video camera, creating real-time footage that was then projected in slow-motion on a screen behind them.

When the video camera focused on a particular artist or a particular musical object, the video projection allowed the audience to see the on-stage activities from a perspective unavailable to them from off-stage. While most of the artists were seated, the camerawoman stood above them, focusing the camera at a downward angle, offering audiences a closer view of CMAU's sonic activities. Unlike the big-screen projections of on-stage activity at large concert venues, CMAU's video imagery was actually part of the group's aesthetic. The group slowed down the video so that when the camerawoman moved ever so slightly, the colorfully

lit performance transformed into blurred objects and projected swirls of red, orange, purple, and green. The movements also seemed to be timed with CMAU's layers of slowly droning abstract sound. The subtle temporal shifts in the projection reflected the temporal movement of the music, which created both a literal and aesthetic interpretation of the real-time activity on the stage. Although CMAU's internal processes could never be entirely revealed, the video projection brings the audience closer to the sound source, providing them with an intimate perspective that is mutually revelatory and aesthetic. This unique visualization of technology in performance gives the audience a sense of gaining access and has the potential to reveal the artists' processes without being didactic.

Yuko Nexus6 and Mariko Tajiri's performance at Field Effects 21 at the Quiet American Space in San Francisco took a similar approach, as the two artists used real-time sound and video projection. The female Japanese artists set up on the floor in the middle of the audience, who were also seated on the floor. By using objects such as a bottle filled with water, one of the artists created sounds, which were then fed into the other artist's computer, who processed them live and added pre-recorded samples. The video portion of the piece was also created in real-time, as all of the sound and object manipulation occurred beneath

the lens of a video camera, which was inverted in order to record the artist's activity on the floor below. Interestingly, in the beginning portion of the set for example, although one could see water droplets on screen while the sound of poured water came from the speakers, it was difficult to tell that detailed visual abstractions were actually recorded by the artist in the center of the room. In fact, one's position in the audience had a direct effect on how the work would be experienced. It is likely that those seated in front of the artists, closer to the video screen, would have been unaware that the artists were generating the video, and much of the audio, in real time. However, those situated behind Yuko Nexus6 and Mariko Tajiri would have been privy to the artists' process during the show.

Here the activities of the performer are revelatory, only insofar as to whether or not one is in a position to see those activities. While I experienced about one-quarter of the performance without turning around to see the performers, my two companions remained unaware of the artists' activities throughout the entire set. Interestingly, when I informed them of the artistic process, their appreciation for the performance, and the video in particular, increased dramatically. My experience was similar; once I recognized that the images directly corresponded to live action and to live sound, they seemed less arbitrary, creating an aesthetic

interconnectedness revealed in the audiovisual interaction.

In a much more technologically complex audiovisual performance, Montreal artists Skoltz_Kolgen (Dominique Skoltz and Herman W. Kolgen) used digital platforms to explore the immediate relationship between sonic systems and visual material at the Redcat Theatre in Los Angeles. As part of the *Visual Music: See Hear Now!* exhibition, Skoltz_Kolgen performed "Fluux:/Terminal," where the artists project separate photographed and filmed images on two large screens, which in turn correspond to a two-channel audio setup (figure 5). The sound sources are desynchronized and sent into separate channels – the right channel excites the right-hand image and the left channel excites the left-hand image. According to Skoltz_Kolgen, "a bipolar experience is therefore built by catalyzing the lines of tension between two independent, but related audiovisual worlds."[25]

Although Skoltz_Kolgen use the audio to "excite" the visual in an impressively detailed and powerfully graphic format, the relationship between the two remains associative since the audio and the visual imagery are actually independent entities. However, the intensely rich graphics correspond to the audio with a rhythmic and temporal accuracy that make it difficult to perceive the two modalities as if they are coming from separate sources. The static-
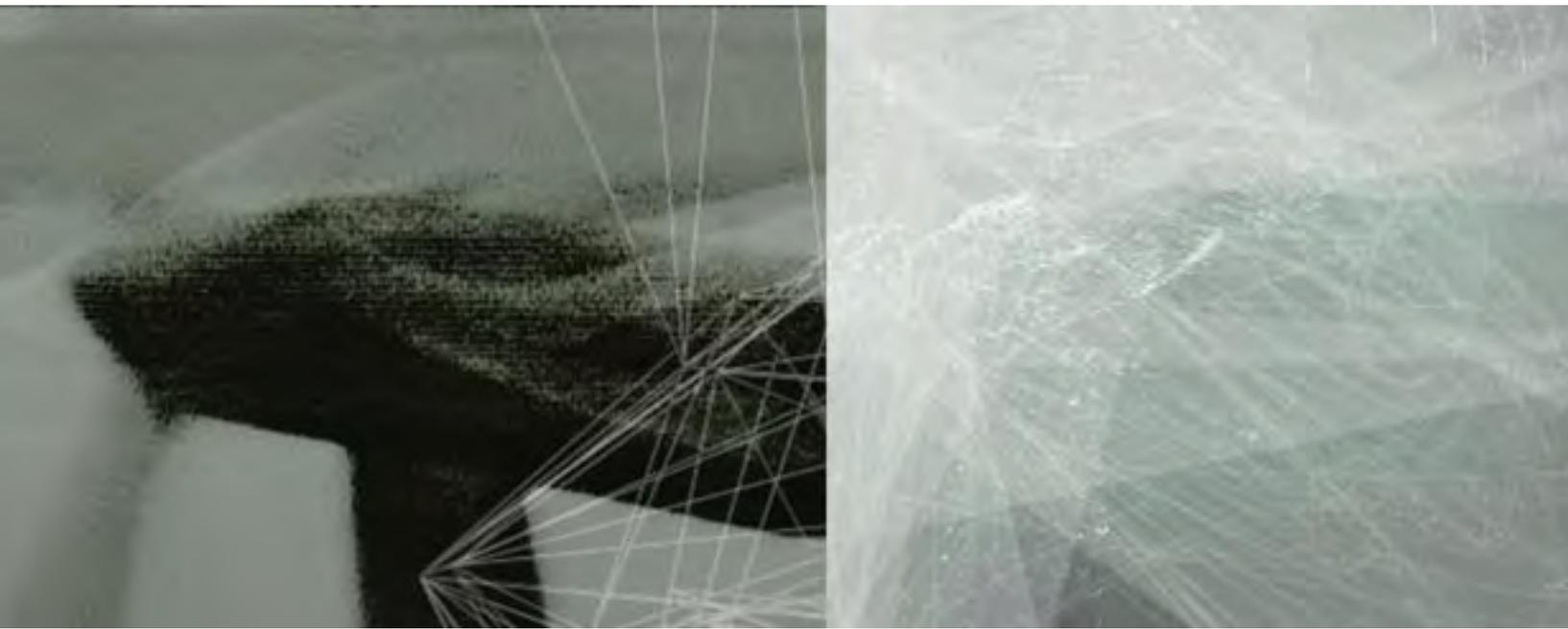
Arford began his audiovisual series *Static Room* as an attempt to merge sonic and visual material into a unified performance environment. Since 2000, Arford's installations and performances have constructed immersive spaces where large-screen video projections are displayed with corresponding audio. Arford uses video signals to directly generate the audio component of his work, resulting in the concurrent perceptual experience of sound and image. A real-time translation of a video feed from his VCR simultaneously creates real-time audio. Because the video output is directed into a sound software program and eventually fed into an audio amplification system, Arford can manipulate video static into abstract images, and in turn, create abstract sound.[27] As Arford says, "What you see is what you hear, what you hear is what you see."[28]

For the 2002 Activating the Medium Festival held at the San Francisco Museum of Modern Art, Arford performed *Static Room 3* (figure 6), a four-channel sound environment consisting of two side-by-side video projections in the museum's Phyllis Wattis Theater (figure 7).[29]

To begin the performance, Arford seated himself cross-legged in the center of the stage, with his laptop propped up in front of him on a black, cloth-covered stand. A large video screen towered behind him where his images would be displayed from a projector mounted in the
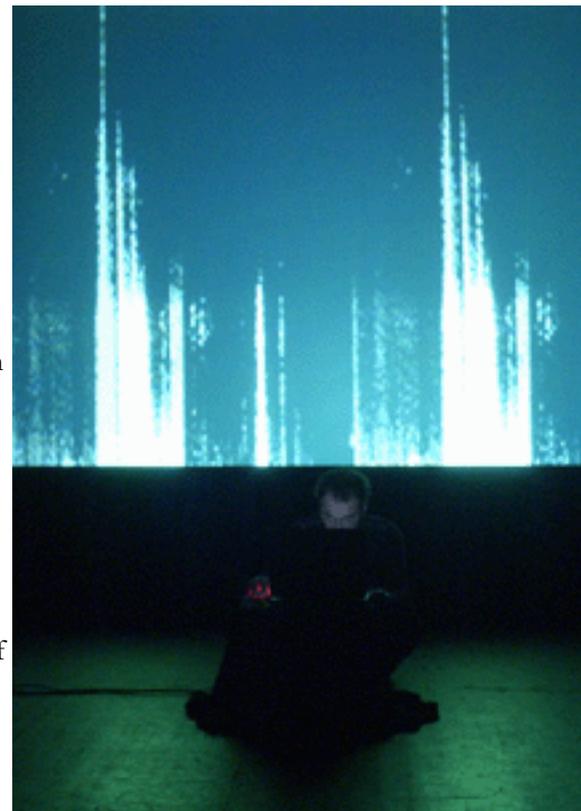
filled layers of sound seem to morph simultaneously with the imagery, as if the development of the graphic landscapes onscreen were actually amplified through the speakers.

Perhaps for Skoltz_Kolgen, the importance of the audiovisual relationship lies in perceived interactivity, in the aesthetic communication between sound and image. Even though Skoltz_Kolgen create an audiovisual illusion that sound and image are in direct or real correspondence, the experience remains one of such well-produced simultaneity that the balance between sound and image seems to even out. Their work, while ultimately associative, creates an experience that moves away from the kind of relationship between sound and image in cinema, where the former

is subservient to the latter. Instead, "Fluux:/Terminal" deconstructs this hierarchical relationship to bring the two sensory experiences closer together.

San Francisco-based artist Scott Arford's project *Static Room* also addresses the hierarchy of the senses in audiovisual experiences. Working to reconfigure the imbalance between auditory and visual perception in performance, Arford's process involves a real, physical link between sound and image.[26] *Static Room* constructs an environment that carefully and artistically recognizes the sensory elements activated by the performance space. The remainder of this chapter will focus on this work.

SCOTT ARFORD'S STATIC ROOM

Figure 6 - Scott Arford performing at the Activating the Medium Festival at SFMOMA, February 15, 2002. Photo by Joe P. Johnston.

center of the theater between the two tiers of audience seating. As the lights dimmed, Arford bombarded the audience with his audiovisual interplay. Immediately, pulsating mechanical sounds rebounded throughout the space as the screen quickly alternated between black and a bluish-white. Images of black and dark blue horizontal bands followed, cascading in a continuous motion down the length of the screen, resulting in a denser, more perforated staccato sound. Next, multi-hued blue lines that looked as if they had been scraped haphazardly with a palette knife marked the black background as the sound became noisier and more complex, like snippets of low-frequency static (figure 8).
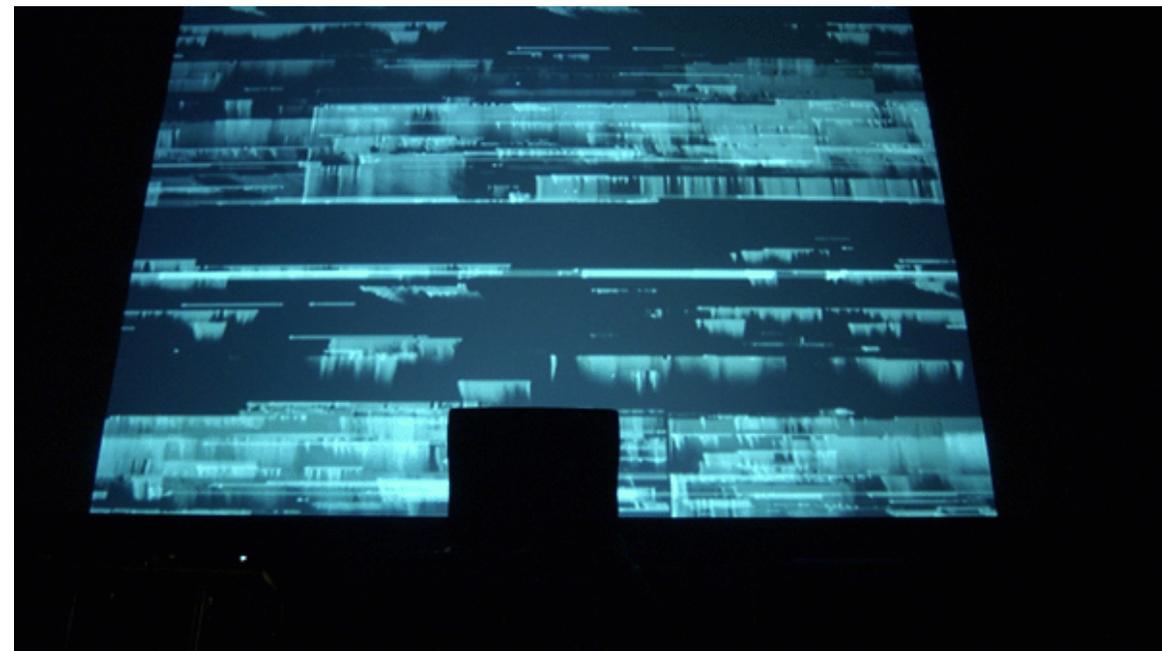
The screen then suddenly transformed into solid red, faded in and out, and then finally changed to green, with its accompanying minimal audio tones providing the audience with a brief recess from the beating, denser drones associated with the earlier images. Arford's 30-minute set continued in this fashion, with morphing, abstract images creating equally abstract, morphing sounds. While Arford introduced a variety of video and audio segments throughout the piece, previous audiovisual constructions sporadically resurfaced, creating a linear trajectory, but one that simultaneously recalled previous audiovisual sensations. As Arford manipulated and positioned these

sound-image combinations against one another, new juxtapositions emerged as abstract patterns were continuously formed and taken apart.

While the intensity of Arford's piece is largely due to the vast size of the screen, quickly changing video abstractions, and loud, static-based sounds, the more immediately provocative aspect of *Static Room* is the perceptual relationship between the projected image and amplified sound. Whereas sound is typically used to support on-and-off screen activity in film and video, Arford's work dismantles familiar associations between sound and image that treat sound as subservient to the image. For example, in his essay regarding off-screen sound in film, Christian Metz states that sound is usually conceived of as an "attribute, as

a non-object, and therefore (there is) the tendency to neglect its own characteristics in favor of those of its corresponding 'substance,' which in this case is the visible object, which has emitted the sound."[30] While Arford deliberately constructs a relationship between the sound and its corresponding substance, the video, that relationship does not position sound as a "non-object" or as subservient to the video. The sound and the video operate as a simultaneous experience in which neither medium dominates.

In fact, Arford manipulates the video imagery and sound in order to form a mutual aesthetic, an intentional synaesthesia. Using a video signal to generate an audio signal, Arford literally obtains sound directly from a video source. By processing video

Figure 8 - Scott Arford performing at the Activating the Medium Festival at SFMOMA, February 15, 2002. Photo by Joe P. Johnston.

static and creating a graphic video environment, Arford subsequently generates the sound portion of his work. The video operates similar to an oscillator, as changes in the video in terms of movement and pattern affect the tone and pitch of the sound. He works on the images until they "sound good" and only uses sounds that simultaneously "look good."[31] Although the sound follows the image in *Static Room*, Arford allows the two modalities to interact simultaneously, thus offsetting the imbalance experienced commonly in video, film, and in our daily environment.

Arford manages to fully integrate the visual element of his work with the sonic, so the linkage is both perceptually apparent and aesthetically interdependent. In constructing this work, Arford demonstrates a unique understanding of how audiences listen in an audiovisual context. By creating such a noticeable perceptual linkage between image and sound, Arford's *Static Room* satiates audiences' desire for causal listening. As I watched and listened to the performance, the immediacy of the video and the corresponding sound created such a unique weld that the two seemed causally related. However, at the time of the performance, I was unaware as to which medium was the source. Was the audio generating the video or vice versa?

Although Arford in fact uses video to create audio, he does not reveal that

relationship during the performance. Instead, audiences perceive a causal relationship between the audio and the video that has no direction. The sound could be the source just as easily as the image. By not allowing one medium to appear as the source of the other, Arford equalizes the role of the audio and video, allowing his audiences to attend to both the sound and the image with greater perceptual balance.

The elimination of an identifiable referent or cause is partially due to Arford's use of static and abstract imagery. Static is created by a series of either natural or man-made electric disturbances that ultimately result in noise, a sound containing all audible frequencies. It is almost as if the static functions metaphorically. Both the image and the sound of static contain all possible frequencies, thus allowing the work to be "about" everything and nothing at the same time. The sound and image both refer to one another and to the work itself. Arford very clearly creates *Static Room* with the relationship between abstraction and meaning in mind, by having the video images and sounds act as coexistent entities.

Whether or not an audience recognizes, or even knows, the extent to which the sound and video are actually connected in Arford's work, the sound-image relationship constructs a perceptual simultaneity that functions with or without any knowledge of the artist's process.

Perhaps an audience's awareness of Arford's actual methods is less important than the confirmation of Arford's physical presence, as it is his body that appears to connect the audio and visual components of the work. By occupying a central position on the stage, he becomes the meeting point between the image and the audio, functioning as a stand-in for the actual, technologically based relationship between the two. Although the audience is unable to see what equipment he is actually working with other than a laptop, we easily identify Arford as the creative source merely because of his presence. He becomes a visual focal point, the locus of audiovisual interconnectedness.

Arford moves very little on stage, with his slight hand movements obscured almost entirely by the back of his laptop screen. However, even these minimal physical gestures allow *Static Room* to operate as a performance rather than as an installation. The ability to see the artist "in action" directs attention toward Arford's body. Arford's movement appears to generate changes in the audio and the video, even though the audience remains unable to identify the effects of those movements simply by watching him. An audience relies on his body as the source of the audio-video interaction as it unfolds in real time.

While Arford's *Static Room* attempts to equalize some of the perceptual

imbalance between hearing and vision, it also works as an ideological critique of the mass media and image-driven culture that upholds that imbalance. Arford's interest in sound, as it relates to the contemporary environment, is arguably part of a recent aesthetic that *Artforum* writer Christoph Cox claims many sound artists are taking part in. Cox describes the aesthetic as a "current revival of modernist strategies of abstraction, reduction, self-referentiality, and attention to the perceptual act itself – what could be called, without irony, 'neo-modernism.'"[32] As distinct from postmodernist strategies of collage, cut-up sound, and pastiche, Cox identifies the neo-modernist practice of artists such as Francisco Lopez, Carsten Nicolai, and Kim Cascone as "implicitly allied with a later group of visual abstractionists and their works," a practice with a "distinctly avant-gardist" political concern that "recalls both Clement Greenberg and Theodor Adorno and implicitly criticizes postmodernism for its symbiotic relationship with the culture industry."[33] According to Cox, because the aforementioned neo-modernist artists have returned to a purity of reduced sound, they are not only actively disengaged from popular culture and postmodern practice, but they are also actively pursuing an ideological platform from which their sound can resonate. In fact, part of the provocative nature of Arford's work is that he uses images that come directly from mass-media image-

making machines like the VCR that are very much a fundamental aspect of postmodern culture. Yet, Arford uses the video as a counterpart to the audio in an attempt to eliminate the process of image construction that might occur when audiences are trying to locate a visual referent for the sound. He works to consciously empty his images (and sounds) of meaning, in order to disentangle them from functioning as representations of something outside of the work. Arford's work fits within Cox's neo-modernist framework; Arford engages the physical qualities of static, both as image and as sound, thus allowing static to exist as raw material ideologically distanced from the mass communication machine from which it is produced.

Not only does Arford's *Static Room* recall the modernist strategies of mid-century abstractionists, but also an even earlier modernist precedent set by the Italian Futurists. The Futurists created "new music" from the sonic experience of the city landscape – an aestheticization of urban noise that was considered distinctly modern, a necessary move away from the classical music of the past. While Arford isn't a noise artist per se, his static manipulations are an extension of an aesthetic interest in the extraneous, non-musical sounds in the everyday environment.[34] As electrical disturbances are everywhere in our current surroundings, *Static Room* repositions video static and

aestheticizes a sound that is typically secondary, even unwanted, through the very medium that produces it. Instead of something that interrupts our watching, Arford foregrounds static, and the sounds it generates, as the program to be contemplated, and on which to focus our attention.

CONCLUSION

For an art form predicated on the primacy of listening, both artists and audiences must continue to recognize the inherent relationship between auditory and visual perception. Although we live in a culture that has positioned vision as the primary sensory modality, artists will remain subservient to the visual unless actions are taken that carefully negotiate its role in the presentation of sound works.

Although such a negotiation can be achieved in a multitude of ways, I have advocated for the type of work that makes the relationship between the auditory and the visual apparent to audiences. By finding ways to reveal the relationship between the sonic and the visual elements of a performance, artists place themselves in a better position to shape how audiences hear their work. When the link between the auditory and the visual is arbitrary, works tend to fall victim to the hierarchy of sensory experience. Although performance introduces parameters that cannot necessarily be fully controlled by artists, a lack of attention to the visual aspects of

performance leaves the construction of the relationship between the sonic and the visual entirely to the audience and to the inevitability of visual listening.

Endnotes

[1] For this project, I have chosen the term "sound performance," as it defines works by their artistic use of sound in performance, regardless of whether or not the artist is an experimental musician or sound artist per se. Often, very similar works can be identified as music *or* as sound art because the artist or the artist's work is positioned within a particular context. A definition of sound performance that resists categorization in the visual arts or in experimental music allows for an analysis that considers both the work itself and the work's relationship to the community within which the work is produced and presented to an audience. For example, an artist like Kim Cascone, whose glitch music (music generated literally out of "glitches" in computer software) has typically been associated with experimental electronic music and computer music. Yet Cascone has also been selected for museum shows, affording his work a position within the visual arts that has been culturally distinct from music scenes.

[2] According to the phenomenological assertion put forth by Maurice Merleau-Ponty, "It is impossible to…decompose a perception, to make it into a collection of sensations, because in it the whole is prior to the parts – and this whole is not an ideal whole." Although sensory modalities may be subsequently examined as individual constituencies, those constituencies always make up part of a larger, immediately experienced whole. Maurice Merleau-Ponty, *The Primacy of Perception, and Other Essays on the Phenomenological Psychology, the Philosophy of Art, History and Politics*, ed. James M. Edie (Evanston, Illinois: Northwestern University Pres, 1964), 15.

[3] Michel Chion, *Audio-Vision: Sound on Screen* (New York: Columbia University Press, 1994), 5.

[4] Chion, 25.

[5] Chion, 27.

[6] Chion, 26.

[7] Chion forged the word "synchresis" by combining the terms synchronism and synthesis to describe the "spontaneous and irresistible weld" produced between auditory phenomena and visual phenomena "when they occur at the same time." Chion, 63.

[8] Chion, 5.

[9] According to Schaeffer, "the new phenomenon of telecommunications and the massive diffusion of messages exist only *in relation to* and *as a function of* a fact that has been rooted in human experience from the beginning: natural, sonorous communication. This is why we can, without anachronism, return to an ancient tradition which, no less nor otherwise than contemporary radio and recordings, gives back to the ear alone the entire responsibility of a perception that ordinarily rests on other sensible witnesses. In ancient times, the apparatus was a curtain; today, it is the radio and the methods of reproduction, along with the whole set of electro-acoustic transformations, that place us, modern listeners to an invisible voice, under similar conditions." Pierre Schaeffer, "Acousmatics," reprinted in *Audio Culture: Readings in Modern Music*, Christoph Cox and Daniel Warner, Eds. (New York: Continuum, 2004), 76.

[10] Chion, 29.

[11] Schaeffer, 78.

[12] Judith Zilczer, "Music for the Eyes: Abstract Painting and Light Art," *Visual Music: Synaesthesia in Art and Music Since 1900* (New York: Thames and Hudson), 2005, 159.

[13] The term "visual music" is built upon the idea of musical analogy in the arts, whereby artists tried to represent the characteristics of music through visual means.

[14] Although music can certainly function as a representational medium, particularly in opera and theater music, the suggestion of music as non-representational refers primarily to classical music and instrumental music that has no inherent or detectable narrative element that directly suggests a story or particular representation of an idea, person, place, or object.

[15] Zilczer, 70.

[16] Kerry Brougher, "Visual Music Culture," *Visual Music: Synaesthesia in Art and Music Since 1900* (New York: Thames and Hudson), 2005, p. 125.

[17] For example, in the 16mm film *Five Film Exercises* (1943-44), James and John Whitney "synched optically produced sound to images that were produced by light shot through a stencil system." Brougher, 125.

[18] Although the Whitneys were working in the context of filmmaking practice, their experiments with sound and image set distinct precedents for both filmmakers *and* sound artists. The two artists' work brought sound and image together with both a physical and aesthetic intimacy that has had marked effects on artistic practice, particularly in recent sound and video art, as evidenced by the work of artists like Carsten Nicolai (see his *Telefunken* project) and Scott Arford (whose audiovisual work is discussed in detail at the end of this chapter).

[19] Zilczer, 71.

[20] Brougher, 159.

[21] Brougher, 161.

[22] Recchion and Rosen performed on February 26, 2005 as part of the "See, Hear, Now!" performance series associated with the LAMOCA's *Visual Music* exhibition.

[23] Sensorband's work as described on ATMF promotional material. http://www.23five.org/2002.html.

[24] For example, see album artwork for artists such as Signal, AGF, or Fon, as well as the layout of magazines such as *Grooves*.

[25] http://www.skoltzkolgen.com/

[26] In addition to *Static Room*, Arford's project *TV-IV* (2002-2004) also constructs a physical translation between sound and image. During a performance, Arford places contact microphones on a television screen, captures the sound from the picture tubes, and runs it back to the video input as part of a feedback loop. As the picture tube warms up, the sound creates magnetic fields and images appear on the screen. Carsten Nicolai's *Telefunken* (2000) is also an important work in terms of physical translations between sound and image, although it is not acknowledged here since it is not performed. In *Telefunken*, Nicolai instructs listeners to run the audio signal from the *Telefunken* CD through a television set, which in turn produces abstract imagery on the screen.

[27] Arford uses the software program Max/MSP in his *Static Room* projects. Max/MSP is a graphical environment for music, audio, and multimedia that allows users to create software using a visual toolkit of objects.

[28] Scott Arford, interview with the author, San Francisco, CA, October 29, 2003.

[29] Arford's *Static Room* project works as a series of installations and performances. The performance at SFMOMA was the third manifestation in the series.

30 Christian Metz, "Aural Objects,"
Film Theory and Criticism
(New York and Oxford: Oxford
University Press, 1992), 315.

31 Scott Arford, interview with
the author, San Francisco, CA,
October 29, 2003.

32 Christoph Cox, "Return to
Form," *Artforum* (November 2003):
67.

33 Cox, 67.

34 Although Arford's work
shares affinities with works of
noise artists (noise as source,
characteristically loud/harsh
sound, etc.), to define him as such
would limit the varied scope of his
work, and the various contexts
within which it exists.