Introduction

Convention tends to demarcate: a painting is a painting, an opera is an opera; a visual artist is a visual artist, not a musician or a composer... It works like a wall surrounding a closed system - fencing in, fencing out. Embracing this concept means turning one's back to reality as it is: a tangle of circumstances, events and developments; a perpetual state of madness [in which] people have always striven to find a system...

-Paul Panhuysen

Composers write scores, give instructions to performers who perform these instructions, usually in concerts. Sculptors create or assemble objects which are displayed, usually in galleries or museums. What can be said of sculptors who work with sounds, or composers who work with objects? Are they merely anomalies of the accepted plastic arts and performing arts? Is there a large enough body of this work to justify a new genre specifically for these artists? The opinion presented in this paper is that not only does a community of artists creating sculptural/musical work exist; that community requires unique venues for presentation and unique languages with which to approach their work. A sound artist, then, is an artist whose materials include physical media, sound, and environments. A sound artist creates all of these, not taking any of them for granted. To a sound artist, the gallery in which her work is shown is part of her subject; the instrument used to create the sounds heard in a concert hall is her subject-including its sound, including its appearance, and including the actions required to make the instrument sound. Sound artists tend to be poorly represented by the modes of discourse that seem satisfactory for "pure" musical or visual art; they are poorly represented by the forms of presentation available (i.e. concert halls and galleries). The concerns of the sound artist differ from those of the composer, performer, sculptor or painter. This paper is a discussion of these concerns, and a survey of some sound artists' works responding to those concerns through their use of technology.

Artists have unique ways of creating, of interacting with their chosen materials in the creative process. Many sound artists feel most comfortable working with their sound physically, allowing the visceral contact with materials to influence their choices. Their work is a dialogue between the creation of physical objects and the sound generated by those objects. Musician's are trained to work with sound largely as an abstraction. Music theory is developed almost entirely from abstract systems of organizing pitch and rhythm. These concepts of pitch and rhythm are generalized, idealized. The composer's materials are not physical materials, they are physical phenomena. The act of composing, except in the case of improvisation, is the act of instructing people how to create a phenomenon.

Other disciplines require vastly different approaches, as composer Richard Lerman discovered when he began working at a film school: "I noticed that the way people worked with materials [in film school] was altogether different from the way musicians work when they write down notes. These people attacked materials physically, with the hands. Burning things, hammering things. Actions. Hands. And boy, I really liked that." (p. 27, Van Peer) Because sound art falls between musical and visual realms, approaches to the materials often incorporate what the artist desires from either tradition. Johan Goedhart has created installations using large amounts of computer printers which were continuously printing. In addition to spitting out reams of paper which was eventually fed back through the printers, the sounds generated were processed and made audible again through various media. The choice of documents to be printed in such an installation then becomes a compromise between the visual and audible output from the printers. The sound is a direct result of the artist's choice of physical materials.

An aspect which is common to both visual and musical arts while seldom directly addressed by either is the composition of dynamic space. While music seems to activate a space in an abstract manner, sculpture creates a palpably present but static and unresponsive space. Sound artists attempt to create environments as a sculptor might, but which are animated with sound. Some of them create sound sources which highlight architectural features, some deal with concepts of room acoustics. Horst Rickel, who creates installations of self-playing organ pipes, discusses his work in which spaces are animated by sounds: "I built an instrument which I called Organum Instabilum, which created lots of standing waves ... causing wild sonic moments in the space-a phenomenon which I have been exploring since then. Somehow my work always seems to boil down to movement." (Van Peer, p. 66) His work draws attention to normal spaces in which we live, revealing their volatility.

In addition to altering aspects of physical spaces which we inhabit, some sound artists present sounds from foreign spaces where we have never been; these may be imaginary, created spaces or spaces inside objects and bodies. Alvin Lucier's Music for Solo Performer amplifies brain waves, John Cage and David Tudor amplified a variety of internal sounds from plants and machines. Richard Lerman also has created a large body of work dealing with internal sounds of unexpected objects, like bridges, plants and thatch roofs. They are exploring and exploding concepts of the transmission
of sound through different media. While we naturally think of sound being transmitted to our ears through the air, the contact microphone captures the sounds carried through other materials, allowing them to be transmitted through the air.

One of the most interesting traits sound artists share is a drastically different relationship to their audiences than either composers or sculptors. While they often create concert works or installations which are unresponsive to viewers, each sound artist discussed here has not only created works which incorporate some degree of interaction, they all express strong desires to hand the control of their works over to audiences in unique ways. Christina Kubisch describes her work in this way: "I organize everything beforehand, and the person who listens to my installation puts it together. It's like a puzzle - I give them the single pieces, and then they can make their own composition with them, by the way they're moving." (Kubisch, p. 91) Paul Panhuysen participates with viewers in his Situasies: "As I consider the audience to be artists too, I aimed at their participation. In that sense the Situasies were not just a metaphor of reality, they were metaphor and reality at the same time. In a good Situasie art unlocked the inhibitions of the audience." (Van Peer, p. 131)

Sound art seems an optimal media for a non-hierarchical, participatory mode. It has a visceral, physical presence, yet often requires actions from individuals to produce sounds. It breaks down the distinctions between artist and audience via hybridization of the presentation.

It is perhaps this "hybrid" nature of sound art that is it's most attractive. Each of these discussed traits exists singly in the forms of expression with which we are all familiar. A sound art work can be any of many combinations of these qualities. This combinatoriality of features is not artificial; it seems more likely that the segregation of them into realms protected from each other which is artificial. The tendency to blur the boundaries between the realms is one of sound art's greatest strengths. The works discussed below all engender a collection of these traits: interactivity; dynamic, palpable and volatile spaces; new, unfamiliar, and impossible spaces. They are all individual expressions, the results of artists interacting with their chosen materials in unique ways. In these works, objects and their sounds are linked in and with space.