Composing perceptual geographies

(Course/Workshop Introduction/Description, 2006)

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Today media exist which begin to match the range and subtlety of our perceptual modes. As a result of recent advances in multisensorial and immersive technologies, new visual and aural experiences are being explored, some unlike any past experiences, particularly those being created for converging media and telepresence platforms.

As immersive technologies expand and grow to mirror the sensitivity of our responsive energies, will sound art delve consciously into these expanded sensitivites? Consider two basic examples resulting from advances in digital audio technologies: dynamic range and spatial dimension. Much of the music circulating the world is still based on the limited capacity of the recording technology available for Lp records having a dynamic range of 40db, compared to digital's 120db. With today's "technologies of presence" we are able to experience multidimensional immersive aural architectures in which sonic imaging is perceived from many different spatial orientations, in large public spaces, and in homes with emerging multispeaker systems.

Hardware is no longer the problem. (Although I really wish loudspeakers could rise out of their mechancial souls!) The real need is to explore new ways in which intelligent interfaces can be created which respond, enhance, and communicate with sonic perceptual information being processed by the listener, in addition to sonic information produced acoustically. It is important to fully realize, that with the experiential nature of current technologies we are able for the first time to effectively distinguish between acoustic information and perceptual information, and consciously create for these dimensions.

"CREATING PRESENCE," Part 1 of this session will address the mapping of "perceptual geographies" for new media: exploring scenarios and vocabularies for staging multidimensional sonic worlds, and possibilities for individualizing sonic imaging for listeners and for spaces.

"Creating Presence" is in response to Drew's questions:

>Are spatial effects and distributed sound destined to remain the preserve of isolated art installations, or might they have a place in the venue and PA design of tomorrow?

> D.H. will explore the grey area between club and installation, considering the extent to which innovations devised primarily for art installations can work in a club context. I believe that many of the spatial applications now used mainly in art installations can have exciting larger lives in many different situations. Perhaps one of the problems is that often the isolated art installation is not created as a compelling, transformative experience! There may be a real appreciable lack of "presence" in this world, so that people have little to respond or interact with. Experience is abstract, synaptic modulations totally weak!

And this certainly has much to do with how perceptual information is presented. It is very hard to resist good compelling beats, perceptually. They are on target and there are no questions of their direct neural effects! They create a really vivid world that everyone enters, with full sensorial presence. I map "perceptual geographies" in the immersive aural architectures I create because I want to target certain specific spatial effects with the kind of compelling unquestionable, sensorial focus that emerges in a beat environment.

WAYS OF HEARING -- how we locate, sense and feel sonic events -- are the specific factors which characterize experience in immersive sonic environments; how we particularize acoustic information

 to construct distinct transformative experiences. HOW CERTAIN SOUNDS ARE TO BE PERCEIVED IN AN IMMERSIVE SONIC ENVIRONMENT IS AS IMPORTANT AS THE SOUNDS THEMSELVES. What perceptual modes they trigger - where and how they will exist for the listener. In creating 3D Music-Image Worlds, ways of hearing become as important in shaping an aural architecture as the acoustic information: such as frequencies, tone colors, and rhythms:

"Will certain sounds be locatable, seem miles away, feel close, pulsate vertically above our head, vibrate an elbow, suddenly appear in the space, dramatically disappear as though without a sound? Do we perceive the sound in the room, in our head, a great distance away: do we experience all three dimensions clearly at the same time? In the room, does the sound drift, float, fall like rain? Does it make such a clear shape in the air we seem to "see it" in front of our eyes? Is there no sound in the room at all, but we continue to hear "after-sound" as our mind is processing sonic events perceived minutes ago? Do we experience sonic imaging very near, moving beside (outside and around) one ear only: "feel" patterns as they in fact, do originate and develop quite specifically inside, within our ears.....?"

Taking VR (virtual reality) and telepresence as points of departure, it is interesting to consider cross-sensory explorations between stereo visual imaging and auditory dimension. After images. Thresholds. Physiological resonances. Acoustic spaces of felt sound phenomena, experienced either subliminally, or making recognizably direct physical resonances to the body. Composite mental images of immersion in space, as in stereo vision; direct physiological experience of an acoustic space, as distinguished from the perception of an acoustic space, aurally, as "image."

The next installment of "Creating Presence" will discuss the staging of some specific SONIC SHAPES and MOVEMENTS, and how they may appear in both foreground and background structures. In the meantime pick up your copy of J.G. Ballard's "Vermillion Sands" and enter what may be the first virtual world with total "presence" maintained through each of the incredible stories. And imagine constructing a sonic equivalent, that is as vividly and totally present, even though the Episodes may change over time. "Tone of Place" is indelibly alive, penetrating sensorially from all perspectives. How does he do this? Years ago I lived with these stories. And I realize now how much they influenced the development of my concept for the "Mini-Sound Series" which I create.

I returned to Ballard the other day when the "sonic curtain" came up in Drew's session. I always loved the wonderful "Sound Sweep" where the little guy with the "sonovac" cleans all embedded sound, including ultrasonic and takes it to the sonic dump. It was wonderful to again read Ballard's descriptions of "ultrasonic spaces" and the atmospheres created by these inaudible musics which are perceived, but not heard. Hopefully we might have time to discuss such ultrasonic tonal inlays later in the discussion.

-Maryanne Amacher

SELECTIVE BIOGRAPHY

In my first sound works I developed the idea of sonic telepresence, pioneering the use of telecommunication in sound installations. While a Fellow at the Center for Advanced Visual Studies, Massachusetts Institute of Technology (1972-76) I developed a number of projects for solo and group shows in collaboration with the visual artists Scott Fisher, Luis Frangella, and the architect Juan Navarro Baldeweg. This was a very interesting time, especially because of our ideas about what has since become known as virtual reality, telepresence technologies, and the internet. In the telelink installations for "CITY-LINKS" 1-22 (1967-) the sounds from one or more remote environment (in a city, or in several cities) are transmitted in real-time to the exhibition space, as an ongoing sonic environment. I create the "CITY-LINKS" installations using real-time telelinks, transmitting the sounds from microphones which I place at the remote locations. I introduced the concept of an environment-oriented spatial sound sculpture (created by combining and modulating several remote sound environments) in solo and group shows at the Museum of Contemporary Art, Chicago (1974) and the Walker Arts Center, "Projected Images," Minneapolis. (1974) The adventure is in receiving live sonic spaces from more than one location at the same time - the

tower, the ocean, the abandoned mill. Remote sounding environments enter our local spaces and become part of our rooms. I was particularly interested in the experience of "syncronicity" - hearing spaces distant from each other at the same time--which we do not experience in our lives.

For over three years I received live sound from a microphone which I installed on a window overlooking the ocean at the New England Fish Exchange, Pier 6 Boston Harbor. Dedicated 15kc telelinks provided continuous transmission of the BOSTON HARBOR sound environment to mixing facilities at my studio. These continuous transmissions gave me the opportunity to experience live incoming patterns over time. Time corresponds here to life of the space, to sense of being there. Approach and disappearances of sounding shapes.

My work is best represented in the three series of multimedia installations produced in the United States, Europe, and Japan: the sonic telepresence series, "CITY LINKS" 1-22 (1967-); the architecturally staged "MUSIC FOR SOUND JOINED ROOMS" (1980-) and the "MINI-SOUND SERIES" (1985-) a new multimedia form which I create, that is unique in its use of architecture and serialized narrative. In these major works I adopt the mini series television format in order to develop a more involving narrative context, a serialized narrative to be continued in consecutive episodes, as distinguished from an ongoing installation. The evolving Scenarios of the "Mini-Sound Series" build one upon the other over a period of several days or weeks. The six part "SOUND HOUSE," my first "Mini-Sound Series" was produced during a three month residency at the Capp Street Project in San Francisco (Novl6-Dec22 1985). "THE MUSIC ROOMS" was produced by the DAAD gallery in Berlin, and staged over a four week period (Feb19-Mar15 1987); "STOLEN SOULS" commissioned by INKA Digital Arts Amsterdam, was presented in De Beurs van Berlage Amsterdam (May20-24 1988); "202l THE LIFE PEOPLE" commissioned by the Ars Electronic Festival, was presented in the Brucknerhaus, Linz Austrria (Sept13-16 1989); and "THE BIAURALS" commissioned by The Electrical Matter, an electronic arts festival was presented at the Samuel Fleisher Art Memorial, Philadelphia, Pa. (Sept11-22 1990.)

In "MUSIC FOR SOUND JOINED ROOMS" and "MINI-SOUND SERIES" I use the architectural features of a building to customize sound, visual, and spatial elements, creating intense and dramatic sound experiences. I produce these works in location-based installations that are built from "structure borne" sound (sound traveling through walls, floors, rooms, corridors) which acousticians distinguish from the "airborne" sound experienced with conventional loudspeaker placements. An entire building or series of rooms provides a stage for the sonic and visual sets of my installations. Immersive aural architectures are constructed, linking the main audience space sonically with adjoining rooms through specially designed multiple loudspeaker configurations, creating the effect that sounds originate from specific locations and heights rather than from the loudspeakers. The idea is to create an atmosphere similar to the drama of entering a cinematic closeup, a form of "sonic theater" in which architecture magnifies the expressive dimensions of the work.

The audience enters the set and walks into the "world" of the story, exploring multi-perceptual viewpoints. As they move through new scenes being created by the "Sound Characters," they discover clues to the story distributed throughout the rooms. Places of "thematic focus" are selected to create the scenes - rooms, corridors, walls, doorways, balconies, stairways. In some episodes sound sweeps through the rooms; in others, chords, and tonalities are intricately joined between the rooms; in still others a particular sound shape is emphasized to animate sonic imaging in a distant room. Together with the architectural staging of projected visual environments, I am able to construct multi-dimensional environment-oriented experiences, anticipating virtual immersion environments. Rooms, walls, and corridors that sing. Architecture especially articulates sonic imaging in "structure borne" sound, magnifying color and spatial presence as the sound shapes interact with the structural characteristics of the rooms before reaching the listener. The rooms themselves become speakers, producing sound which is felt throughout the body as well as heard.

In two recent installations I had the opportunity to produce "Music For Sound Joined Rooms" in remarkable architectures with unique acoustical characteristics: the Kunsthalle-Krems in Austria (1995;) and the 21st Century Cultural Information Museum in Tokushima Japan (1992.) I created distinct sonic worlds that could only be articulated through architecture. The Kunsthalle-Krems Minioritenkirche is a

large expansive space that was originally part of a monastery that was built in the 11th century. I produced my work, "A Step Into It, Imagining 1001 Years" in the six areas of the Kunsthalle: the main hall; the altar spaces (one at a high elevation approached by a tall stairway;) the two antechambers adjoining the high altar; and the crypt. A space of expanded seeing and hearing enfolded throughout the Church, linking sonic interactions and visual imaging in six thematic locations. Aural events appeared larger than life; as though many miles away; inside the listener. For "Synaptic Island" which I produced at the 21st Century Cultural Information Museum in Tokushima, I created very discrete placements of sound, emphasizing distinct characteristics in four adjoining rooms. Special layering of sonic imaging was developed; areas of intense sonic pressure; others very ethereal. Staged at specific locations and heights, these sonic areas became tactile in presence, existing as "things in themselves."

To produce the location-based installations for my major works, intensive acoustic and auditory research in the space is required. Usually a residency of one month is needed for my investigations, depending on the size of the space and the number of rooms. During this period I discover special acoustic features of each room, exploring how they interact sonically with each other, and develop the aural imaging and spatial characteristics of the installation. Creating the detailed sound design is very much like scripting a sonic choreography.

Recent projects include the creation of major works: a String Quartet with an electroacoustic installation commissioned by the Kronos String Quartet and the Lila Wallace-Reader's Digest Fund to be premiered in 1999; two new installation works produced in 1998 for the Kunstmuseum Bern, "Taktalos" Festival (March 1998); and for "Tunnel Vision" in the three story Maastunnel, Rotterdam, the Netherlands (Sept 1998). Visiting Artist at Bard College (July 1998) and at the Art Institute of Chicago (April 1999). The Two Part Multimedia Narrative, "A Step Into It, Imagining 1001 Years," commissioned by the Austrian Federal Ministry of Culture and Siemens Kultur Program was produced in the Kunsthalle-Krems, Austria. (Feb-Mar 1995) "The Reference Room" a telelink installation using the "CITY-LINKS" format was produced for the Rosekrans Residency at Mills College. (1993) The Four Part Multimedia Narrative, "Synaptic Island" was commissioned by the Japanese government and produced at the 21st Century Cultural Information Museum in Tokushima Japan. (Apr-May 1992) I was invited to give the John Spencer Camp Lecture at Wesleyan University. (Nov 7 1995) Participation in the two week Symposium, "Tuned Matters Into Sound," Krems-Vienna with La Monte Young, Bernhard Leitner, James Tenney, and Georg Friedrich Haas at the Museum of Modern Art, Palais Liechtenstein, Vienna. (Feb20-Mar5 1995) 3-D sonic architectures, commissioned by the Matshushita Electric Company were designed and produced for the 750 programmable loudspeakers in Panasonic Hall, Tokyo. (1991) CD recordings were released on the Tzadik label, "Sound Characters" (Making The Third Ear) (Feb 99;) and on the Asphodel Sombient Triology: "The Throne Of Drones" (May 95) "The Swarm Of Drones" (Oct 95) and "The Storm Of Drones" (Aug 96).