# steve roden
ear(th), 2004

solo exhibition: williamson gallery, art center college of design, pasadena, ca 2004 (catalog w/cd)

ear(th) is an 8' x 16' x 24' wooden structure. 80 robots attatched to 80 glockenspiel bars were mounted on the roof and attatched to some basic stamp programming chips. earthquake data was translated from a visual interferogram, into code that would determine which notes were struck and in what sequence the robots played them. essentially we translated an image of earthquake data into a score for this sculpture to play - the resulting soundscape an audio translatio of a visual image of the earth's movement.ear(th) was a collaboration with cal-tech scientists ann polsenberg thomas and mark simons. the structure was designed and built with the help of julian goldwhite and john o'brien. the entire project was guided by and initiated by stephen knowlin, director of the williamson gallery.
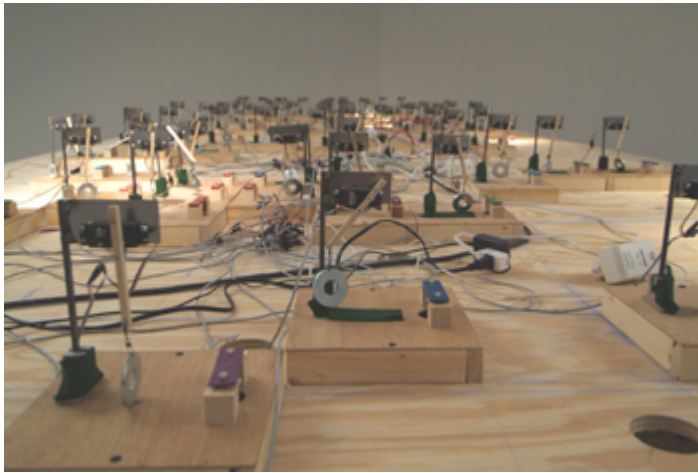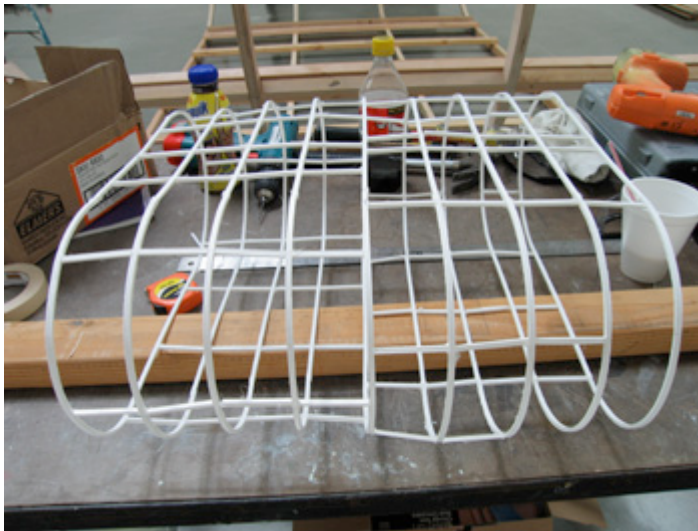
view of the sounding modules

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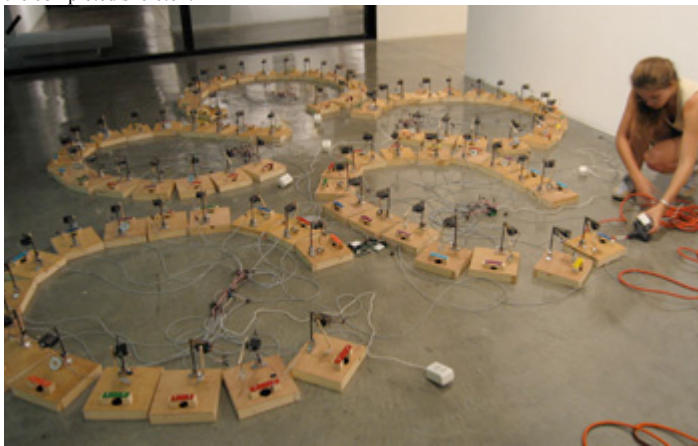fabrication & installation

prototype model built by julian goldwhite.

one of the ribs for the structure.

the completed skeleton.

ann polsenberg working with the robot sounding units

the robots awaiting their sounding arms and mounting.

the skinned structure with support columns awating the roof installation.
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this text accompanied the installation:

ear(th) was created by translating data of the effects of the earth's movement
during an earthquake, into a score for a sound composition. The same data that
generated an interferogram image of the 1999 Landers earthquake, is used as a
set instructions to tell 80 small robots to strike glockenspiel bars of different
pitches. ear(th) uses the movement of the earth as a model for the sequence of
pitches, and the placement of those pitches within an architectural / sculptural
space; allowing the earth, through its suggestions of the spatial and musical
order of sound, to become the composer and conductor of a piece of music.

Most of my visual and sound works are built from self created systems of
translation. The bulk of this work begins with converting the alphabet into a
series of numbers (usually a = 1, b = 2, c = 3, etc.); and then using those
numbers to determine a series of rules. The rules are then used to generate
translations of text into images, objects, films, or sound compositions. These
rules and systems are the beginnings, and are intuitive as much as they are
pre-determined. They are defined, but not without holes. The attempt is always
to turn the initial information into a kind of formal skeleton structure that will
then generate intuitive responses in the hope that the finished artwork can
transcend, rather than illustrate, the source.

With ear(th), a similar approach to the data source is used. It is present as both
a pre-determined structure and a source of intuitive inspiration. At the core of
the installation, and composition, is an image documenting the effects of the
earth's movement on a small area of the Mojave Desert in 1999. A series of
small sounding robots are constantly reading this data and using it to determine
when to make sounds. When I realized that the child's glockenspiel bars used
for the installation happened to be color coded in a way that corresponded to
the colors in the interferogram image; it somehow made sense to connect the
purple on the data image to a "b" on the glockenspiel and the green to an "f".
Through these kinds of intuitive connections, the interferogram became a guide
for mapping the placement of pitches along the roof of the installation. when i
finished the map, i realized that the data could not only determine the
arrangement of the pitches, but in using the color/ note equivalents, it could
also allow me to follow the image as a musical score - once more translating
the image into sound. i recorded myself playing the data score and then
dropped the pitch of the recording down an octave. this looping recording of a
human is interacting with the robots playing live - their relationships are

constantly shifting as their cycles are different lengths - perhaps by layering a precise transcription with a human one a suggestion of new images is made.

Just as the installation would look and sound different if the data source was the ocean or Shakespeare; ear(th) in no way attempts to illustrate the earth's movement or to recreate an earthquake experience through sound. I am much more interested in simply allowing the earthquake data to generate a sound composition and to allow for my own misreadings of the data to suggest placements, sound ideas, performances, and sculptural forms. For me, this process is a kind of alchemy - to allow the materials to be transformed into something completely connected to, yet seemingly distant from, the source.

My sound work has always been about the creation of a listening space and to present sound in a context where listening becomes active. I am interested in the small sounds, unnoticed musics, and found compositions that are everywhere - what Rilke called the "inconsiderable things" that we must be receptive and responsive to in order to experience them. A sound installation, for me, is simply a listening situation. The viewer/listener must come to their own conclusions based on their own experience within the artwork - disconnected from my own ideas and interests. It is my hope that this space is conducive to wondering and wandering.