

Project No. 1

Joseph Ott

Title: A Walk Through Sound Environment: Tunnel

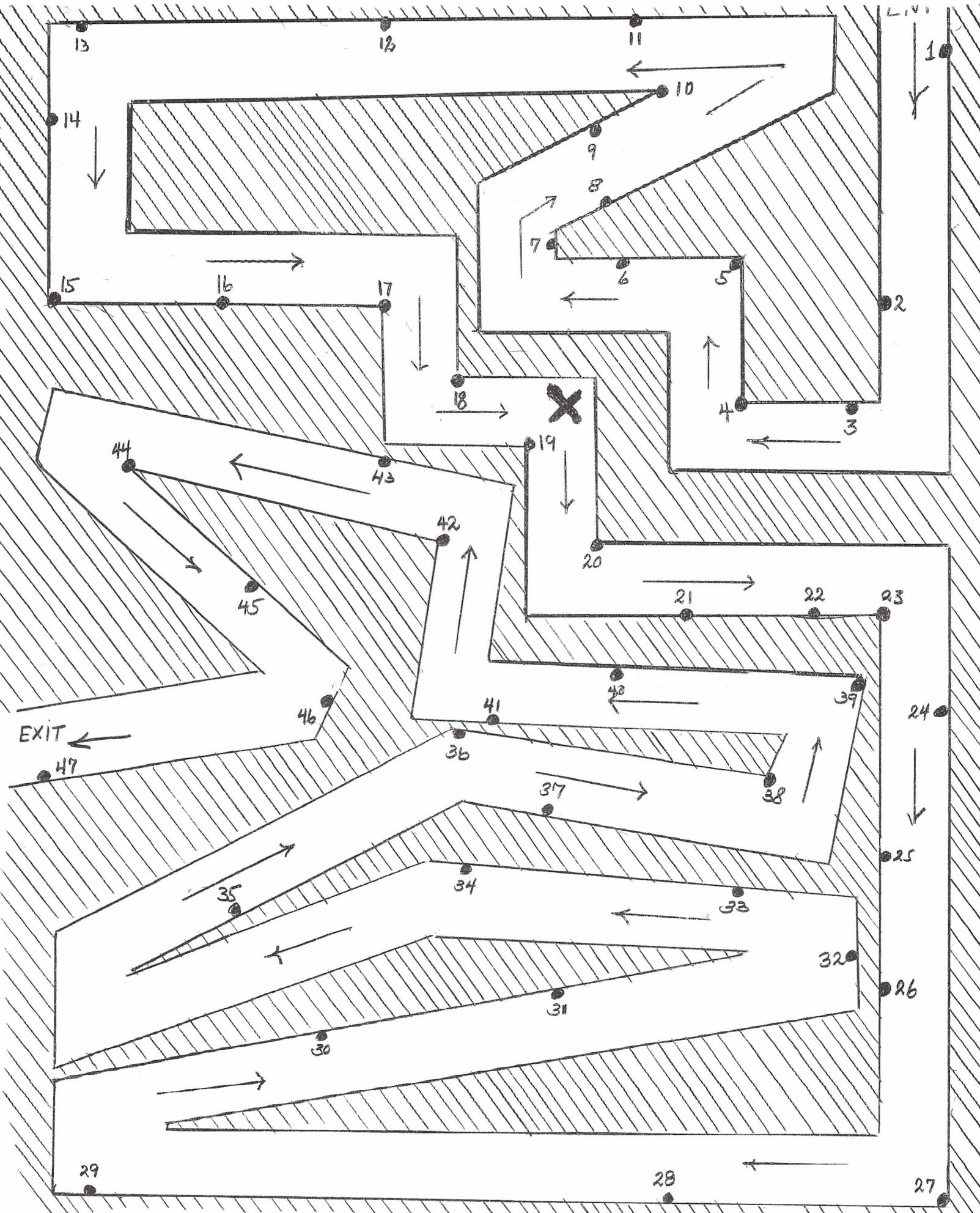
### Description:

This project utilizes a continuous enclosed tunnel equipped with a system of 47 loud speakers mounted in the walls and ceiling of the structure. Each speaker is linked to a separate tape deck and each tape deck contains a different 'bit' of sound information which is made continuous and repetitive through the device of looping the tape. All of the repetitions are of differing time lengths. Between the bank of tape decks and their loud speakers is a switching device which can link any of the 47 tape decks to any of the 47 speakers.

The participant walks through the tunnel and his speed of travel or adjustments in speed controls the temporal aspects of the composition. As he progresses through the tunnel a modulation of sound takes place. Referring to Chart 1, the participant first notices speaker 1 as the dominating sound and as he proceeds farther he begins to perceive speaker 2 which becomes mixed with speaker 1; gradually the content of speaker 1 gives way to that of speaker 2 which becomes the dominant sound source. At this point he may be beginning to perceive the content of both speakers 3 and 4. This same type of modulatory effect is noticed throughout the tunnel except that as the participant gets farther and farther into the tunnel the mixes become more and more complex. Since the participant's progress is not predetermined, he may wish to dwell at a particularly intriguing sound mix; should he not be particularly intrigued with a mix he may proceed to the next point of interest. Thus, in no case is he required to stay past his point of enjoyment nor is he obliged to leave a point of interest before his enjoyment is satisfied.

The shape of the tunnel is fundamental to the whole conception of the experience since it is laid out in such a way as to partially structure musical content. To illustrate this point, suppose a participant is at the point marked with an X (chart 1). He will hear speaker 19 as the dominating sound source. However, speakers 17, 18, 20 and 21 (in the same tunnel section) will merge with speaker 19 to form a dominating texture. In addition to this texture will be other sources (because of leakage or spill-over effects from adjacent sections of the tunnel since none of the tunnel is soundproofed), namely speakers 6, 7, 43 and 42. At this point then the total mix will consist of at least nine sources of sound. By moving a few feet forward or backward the participant shifts the entire complex of relationships. And since the same sources are heard in consort with other sources but in differing relationships to them, a formal cohesion is insured.

At a normal pace, the tunnel complex could be traversed in about four minutes. However, considering pauses thus time estimate might be more like seven minutes. With the added variable of the switching device (allowing for nearly infinite permutations in the sequences of sound sources) which, if this sequence were changed every 10 or 15 minutes, would allow the same participant to reenter the tunnel and have essentially a new sound experience for as long as he wished.



ARROWS indicate direction of travel

Project No.2

Joseph Ott

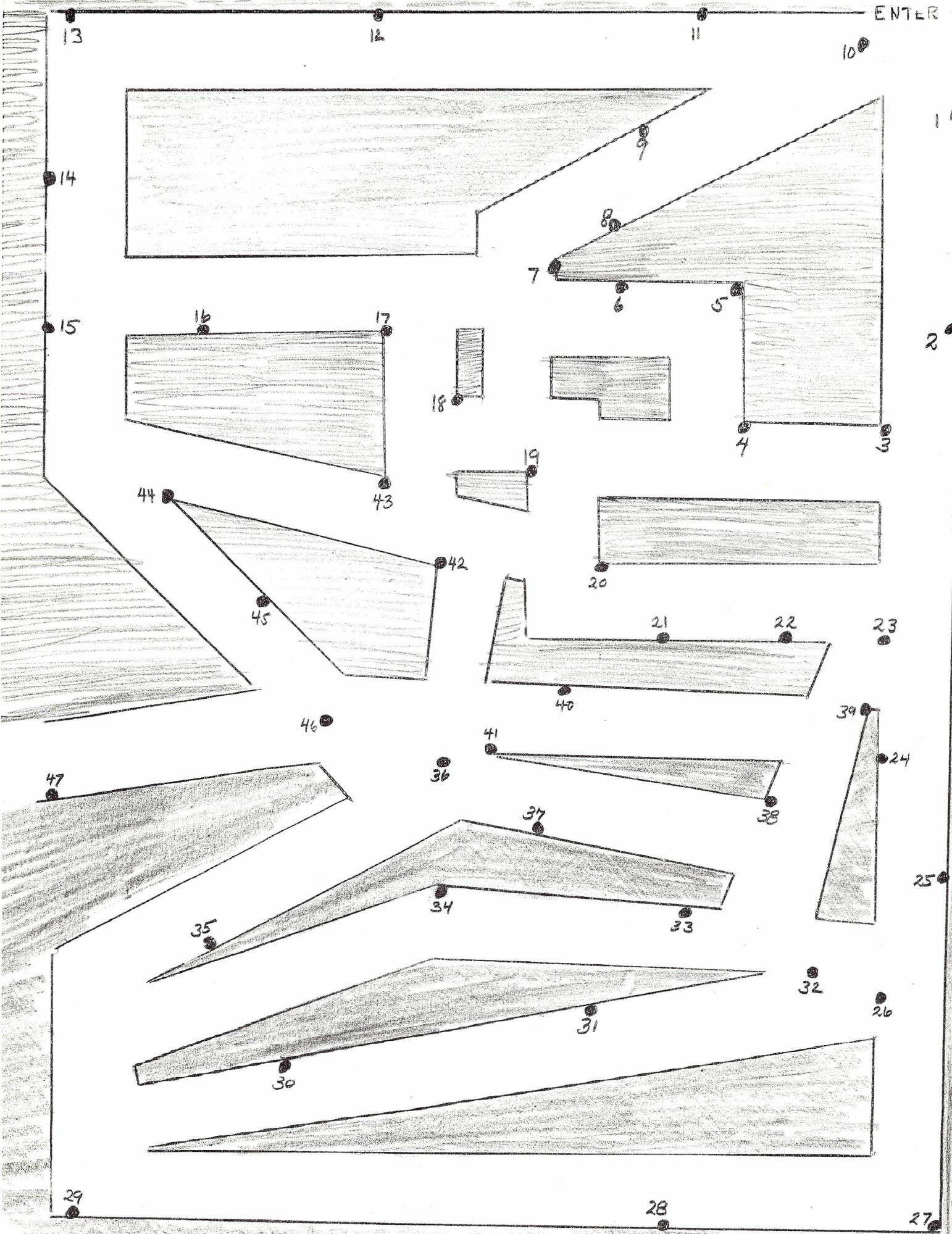
Title: A Walk Through Sound Environment: Maze

Description:

This project is essentially the same as Project No. 1 with the exception that the tunnel complex is modified by removing a few panels to make it become a maze. Chart 11 illustrates the resultant shape after modification.

This modification permits the participant not only to control the temporal aspect of his experience, but allows for a choice in the sequence of sound sources. Since there is no one direct path to follow the participant could conceivably come out at the entry point, or he could go in a direction which would be opposite to his normal course of travel in the tunnel, or he could go through the same section of the maze a number of times.

ENTER



Project No. 3

Joseph Ott

Title: Radio Transmitted Sound Experience.

Description:

The participant is outfitted with a small portable radio receiver equipped with an ear plug type of speaker. He walks through a series of small overlapping radio transmission areas, each containing a different sound content generated by a tape deck and small transmitter. All of the transmitters as well as the receivers are set to the same radio frequency and the transmitters are hung from an overhead position.

The participant's route and his speed of travel shape the sound experience since he is moving into and out of differing transmitting areas. He is then not only determining the sequence of sound materials and their time of existence but is in control of the balance (relative amplitude) of the various sound sources since his distance from any given transmitter determines the strength of the signal.

This project requires twenty six transmitters, the approximate locations of which are shown on Chart 111.

There is no switching device necessary since the movement of the receiver even a few inches would change the content of sound sources. There are about 500,000 different mixes which the participant may reconstitute or resequence as many times as he wishes.

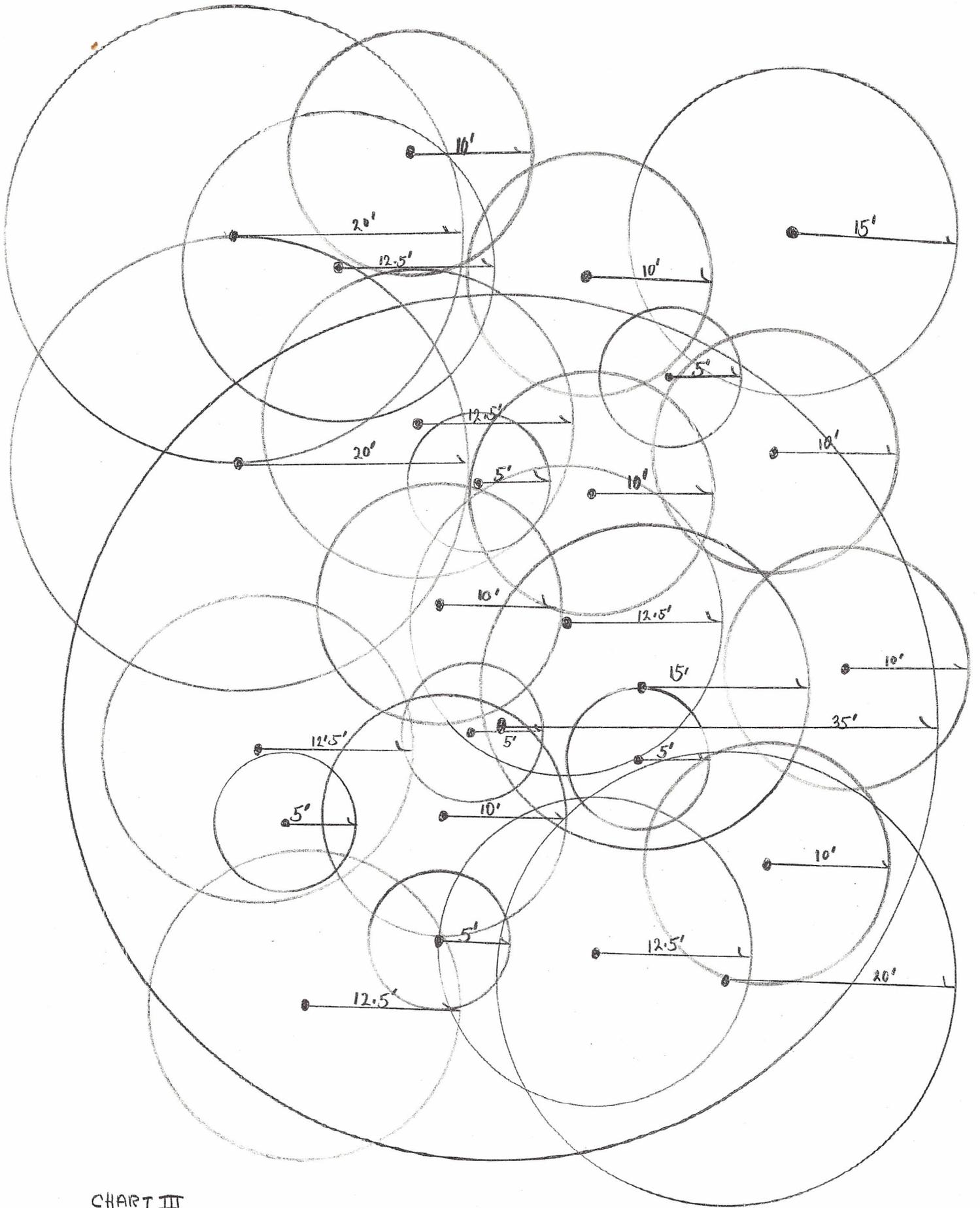


CHART III

Project No.4  
Joseph Ott  
Title: Self-Activated Musical Experience.

Description:

A participant is invited to set in motion a series of suspended steel balls which, because of pendular motion and the fact that the balls make contact with each other, produces a complex rhythmic pattern. Each two adjacent balls function as an electrical switch to control an individual pitch produced by a tone generator (or electronic organ). An electronic organ usually has a keyboard consisting of about five octaves ( 61 pitches) therefore these pitches would be controlled by 61 switches ( 62 steel balls opening and closing circuits). This series of suspended balls is arranged in a single line or row so that any movement of any of the balls is transferred throughout the entire series in accordance with Newton's law regarding the transfer of energy, mass, etc.

A second series of suspended steel balls is also set in motion and these balls control the stops ( sound qualities) of the organ as they also function as electrical switches.

The participant then activates two control systems of electrical circuitry, each of which, operating independently of the other, determines an aspect of the total sound content of the experience. Because of the modifying effect each system imposes upon the other, a continuous variation results.

This project would be housed in a room in which a speaker system of at least 61 units would be mounted in the walls and overhead to produce a mass stereophonic envelope.

Project No. 5

Joseph Ott

Title: Participant-Activated Sound Amplitude and Frequency and  
Light Color and Intensity Environment.

Description:

A circular room of approximately fifty foot diameter is equipped with electronic sensor devices installed in the walls which respond to the nearness of objects. All sensor devices are aimed at the center point of the room. These devices are set so that at twenty feet from the wall a zero response occurs and a gradual rise in response is initiated as objects travel from the twenty foot mark toward the wall at which point an maximum response occurs. This response is translated into electrical energy which in turn is used to control a volume-setting device. Each sensor is linked to an individual pitch and there are approximately one thousand of these sensor devices located on the walls. Correspondingly there are one thousand available pitches. Each sensor not only controls an individual pitch but, according to the nearness of objects, it also controls the volume of the pitch which is 'piped' into the room by way of an individual loud speaker.

In addition to this system of pitch and amplitude control, a series of microphones is located overhead and these microphones respond to decibel levels and are used to activate a series of lights of various colors. Thus, with an insrease of the sound intensity level within a particular area of the room a corresponding increase of light from those microphones in that area will result.

Further, in addition to the wall mounted sensors, a small group of sensors is mounted overhead pointing directly downward filling up a five foot circle directly in the center of the room. These sensors also control a series of tone generators and function as do the wall-mounted units.

The result of the placement of all of the sensor units is a circular, doughnut shaped, 'dead spot' extending from two and one half feet to five feet from the center point in the room. All other areas of the room are 'live' areas, that is, a sensor is activated to some degree or another. See Chart V. Thus, motion toward or away from the walls is translated not only into sound intensity and pitch selection ( depending upon which part of the wall one moves toward) but also into light sources and intensities.

Participation:

A number of participants are ushered into the room and asked to stand within the area marked off on the floor ( the 'dead' area). They are given no instructions nor are they told what to expect. The entry door is closed and the overhead (house) lights are turned off. A master switch activates the sensors and all of the electronic gear. Soon one or

a number of participants will either move, cough, speak, giggle, shuffle his feet, etc. to avoid a growing sense of isolation which results from total darkness and total silence. When either a sound or a motion is made then the machinery is put into operation which translates that sound or movement into a change in the internal environment of the room. Thus, a process begins in which the participants learn that certain movements have definite effects on the internal environment of the room. The combined interrelationships of movement of all of the participants creates not only a unique experience for each individual because of his placement in the room at any given moment and how he maneuvers through the room and through the group of other participants, but a generalized group experience since since the environmental changes were the product of group interaction.

It should be pointed out that two levels of discomfort are in operation. That of isolation ( in the zero response area) and that close to the threshold of pain ( close to or at the wall since since objects in this area activate the machinery to its highest level, thus creating intense light and a high decibel level).

The time run in this project should last about five minutes, after which the master switch should be disconnected shutting down all power. This leaves the participants again in darkness and in silence. At this point they may try to activate the environment again through movement or sound. This phase should last about ten seconds after which time the overhead 'house' lights should be gradually brought to full strength. At this time the experience is over.

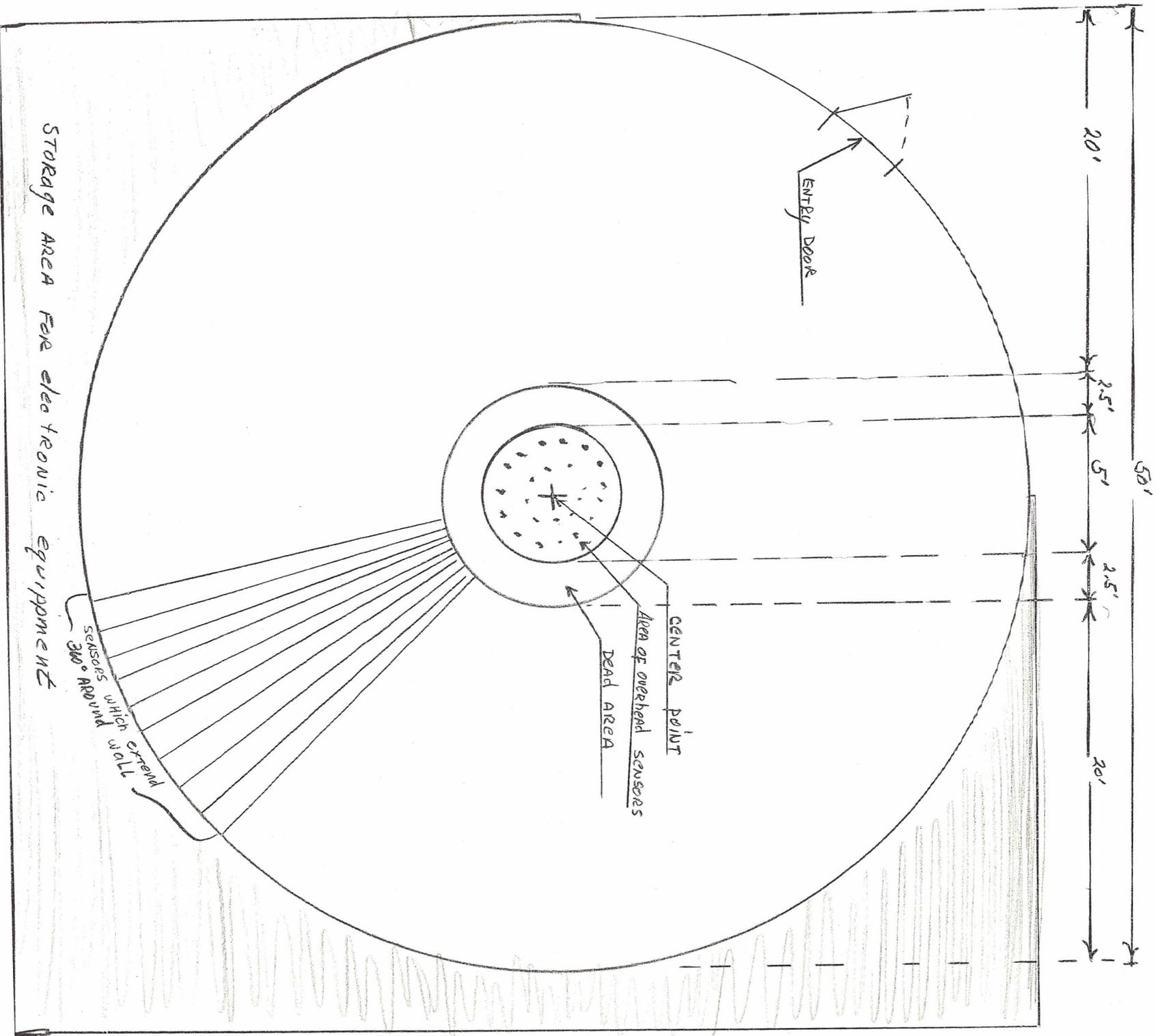


CHART V

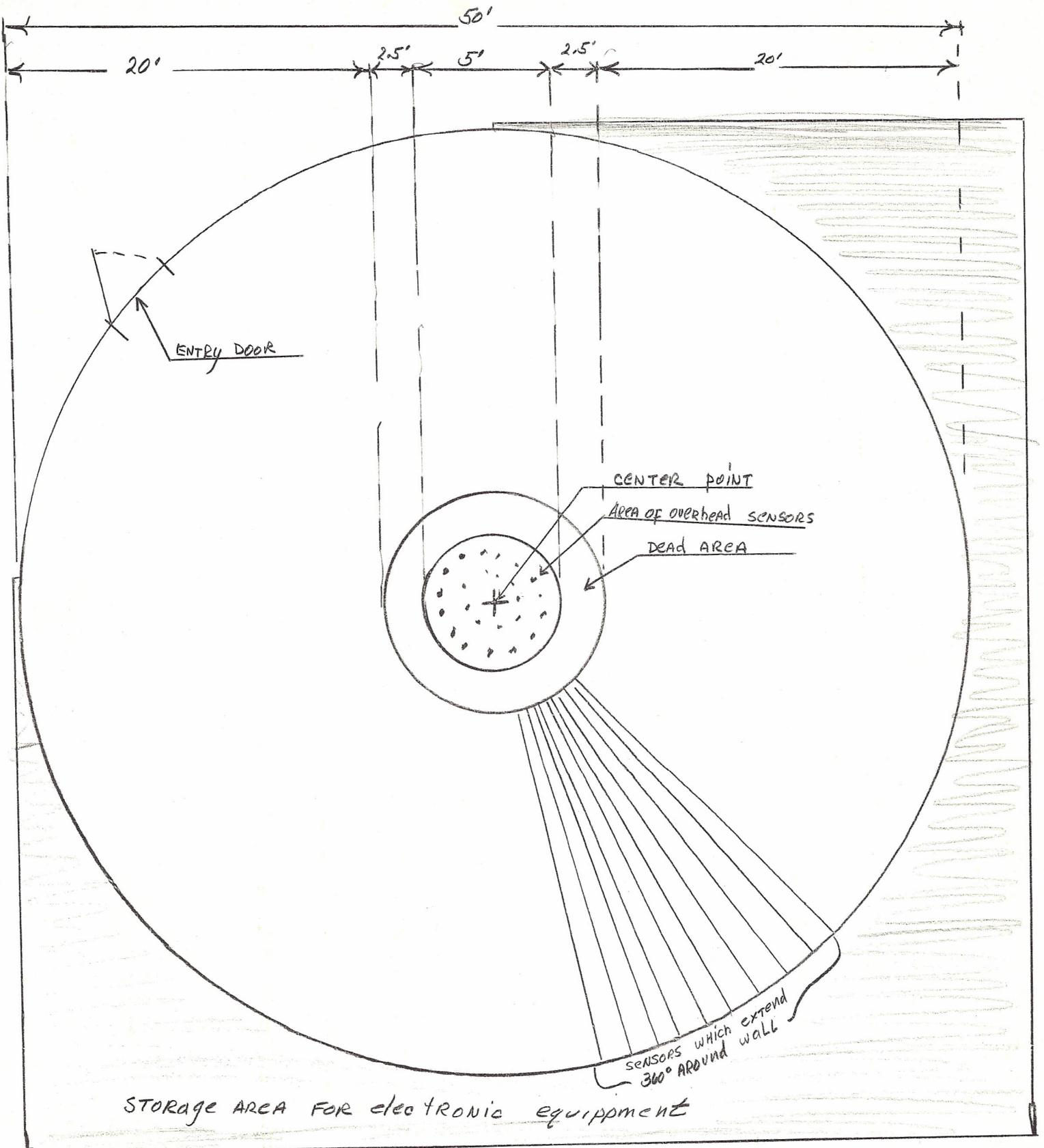


CHART V