Terry Riley" from The Magic Theater

Time-Lag Accumulator :

line anyway. Though a composer, Terry Riley was part of the scene which included artists. He felt no exclusivity at all concerning such distinctions. He was a mixer. He was also remarkably curious about the aesthetics of sound and a person interested in conceptualizing his ideas about sound in widely different ways. Most of his concertising has been outside the country (in Sweden). "He's got a record out, though," Ross remarked.

His sound patterns when I heard his tapes were beautiful. I did not know such elegiac and refined musical passages were possible with such simple notes repeated and intertwined over and again. They were repeated inside time. It was hypnotic and at the same time relaxing It was lean and rich at once. It was electronically modern and at the same time curiously pastoral. It was still instrumental. Was Terry Riley some sort of modern Pan?

He lived in a shambling old house on Grand street. If I could not attract his attention, the men behind the counter in the short-order house next door knew how to rouse him. They did, banging and shouting. Terry invited me upstairs into his recording and music studio. It extended across the back of the house and was entered by stepping down two stairs. There was no furniture, only electronic recording equipment and rugs both to sit on and hung to baffle sound. This equipment took the place of an orchestra. By electronic alchemy he planned music here. Bearded and soft-spoken, Riley made an agreeable impression as he told of his California background and his work in Sweden. The record was made by a plastics company now defunct; he was distributor, he added, indicating the discs stacked along a shelf. I purchased one and asked to have the cover autographed.

He had a project in mind but had not carried it very far. He wanted a time-lag machine constructed in which live voices heard within a chamber (form to be determined) would be repeated in delayed time sequence, projecting the past into the present. He wanted to alter tape recorder heads and using good equipment and engineering help, achieve one of the first such time machines. "It has been discussed, particularly in Germany by radio stations," Terry said, "but no one has built one yet; I'd like to do so. It will be a fascinating experience in voice, and the participant becomes the subject." Sandy Lehmann-Hautt did design a time delay for the Merry Pranksters bus in the early Sixties.

What kind of chamber did he want? Would it be fairly simple to build? Yes, except that the recorders and tapes would have to be hidden, perhaps in a unit outside the room. We discussed the type of room, finally settling tentatively on an oblong chamber with baffles set at intervals in order to separate live voices from delayed replay. "Until the first person speaks in the completed room and the tapes store up enough to start repeating patterns, nothing will be alive," said Terry.
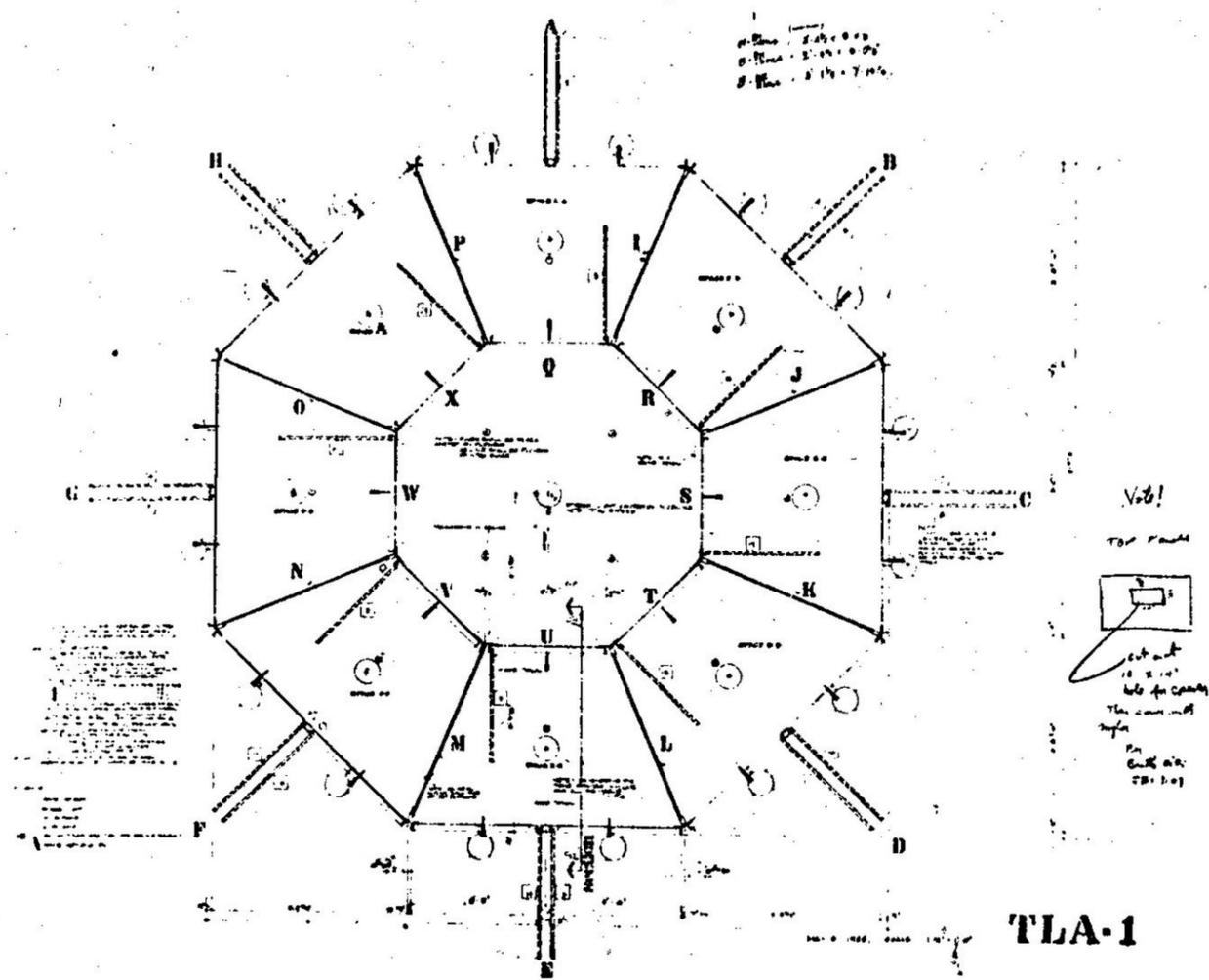
F. TIME LAG

Terry Riley has developed a unique musical style, almost a non- . . based upon cycles and repeated patterns. His music, however, is . . random. The open patterns undergo a variety of treatments eventu. . . in dense networks of sound, usually based on certain scales of f. . quencies. His performances have used magnetic tapes and amplific. . . systems as an extension of life playing. His concerts have about t $_{i}$ . . an unlocated quality. They are often given late at night and sometim. . last until sunrise, the audience being allowed to recline on pillows ar . mats and move around according to their own feelings without t, . usual formal concert restrictions.

The "Time-Lag Accumulator" is closer in concept to his music.) concepts than might be supposed at first. It includes the layering u. of networks of sound (though by unplanned voice participation rath. · than instrumentation), repeats cyclically planned through the use c! tapes and mixers, and in a preliminary plan "the area around the sour.! proof room should probably be comfortable, carpeted with cushions ar : containing chairs in which people could relax and dig the sound cause.; by people in the [round] room with microphones."

An elongated plan for time delay soon gave way to a circular room plan, sufficiently soundproof so that the microphones within would be shielded from the speakers, relaying the sound without, after the des· ignated delay. "It would be very nice if much of this room were trans· parent, so people on the outside could see those inside like in a broad· cast studio. The adjoining room would house the time-lag machine mixers and amplification equipment. Only the people on the outside of the soundproof room would hear the lag, so people on the inside would in a sense be performing."

With Ron Steinhilber as design collaborator, the accumulator was drawn as an octagon with eight pairs of glass doors opening into chambers 8 feet 6 inches high. Single glass inner doors lead into a central interior chamber, also an octagon. Interior partitions are of glass. Recorders and amplifying equipment are elevated overhead in a con· cealed area, an octagonal crown. The accumulator is 14 feet 6 inches high and 15 feet in diameter. In Kansas City there was no room for pillows or chairs outside the chamber.

As redesigned by Stuart Hutchison, micro-switches for the doors are eliminated (they might have produced more audience control). Each of the eight outer chambers has a flashing strobe light in the ceiling and a microphone suspended in a black sock to pick up noise or utterance. The speakers are concealed above the outside door of every cubicle, behind mylar-faced panels which form the crown. There is no ceiling to the equipment deck, as concealment of the time-delay apparatus and

TLA·1

Riley: Time-Lag Accumulator, plan by *Stuart Hutchison*

speakers is complete at floor level. The interior and ceilings are covered with dark Ozite over wood in conformity with the other exhibits.

Riley's equipment specifications included:

1. Nine microphones of the cardioid type (best one can afford)
2. Four professional 2-track stereo tape recorders with specs equal to Revox or better (here is where we cannot afford to skimp on quality)
3. Two tape cartridges or audio vendors to fit same
4. Six mixers (we could probably get away with the small transistorized type)
5. Two pre-amps stereo (dyna quality or better)
6. Two power amps stereo (dyna 35 watts per channel or better)
7. Four loud speakers (as close to "voice of the theater" quality as you can afford, admitting in advance that this is not the best sound)

In Kansas City David Beatty provided most of this equipment. After experimenting, tape recorders were cut down to two, and cuts were made where cost was deemed prohibitive ($70 instead of $300 speakers). Inevitably quality in sound reproduction had to suffer.

Riley had proposed three delay periods:

1. A short delay period of one-fourth to one-half second occurring three or four times in sequence (effect: a visual collage)
2. A delay period of about two or three seconds (slight removal)
3. A delay period of about two minutes (complete audio recall)

After experimentation three programs are in effect:

1. A 7½-foot loop offering two to three seconds delay
2. A 15-foot loop affording eight to 10 seconds delay
3. No delay: immediate response
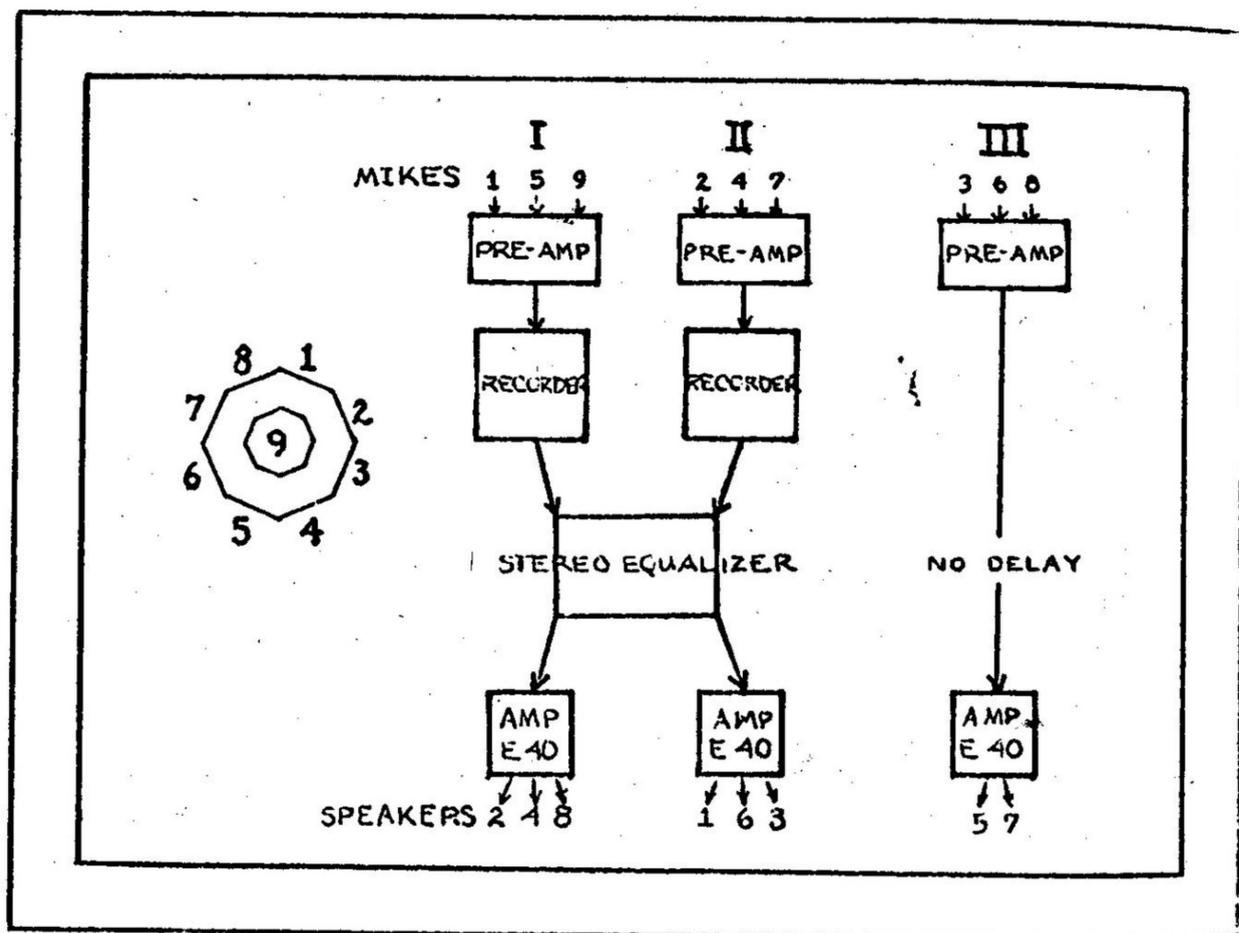
Riley: Schematic of delay-relay programs

By a process of re-recording, a delay of approximately two minutes was achieved but abandoned as the sound became a hodge-podge. "People walking around couldn't tell a 10-second delay from a much longer delay. Cause and effect were reduced by the nature of the design," explained Beatty. Lack of room was also an inhibiting factor, encouraging feedback. In St. Louis and Toledo there was more room and hence a clearer effect.

192