

Chapter 3

The Invention of Live Looping

As with many things that are ‘invented’ it is hard to judge exactly who invented Live-Looping and whether it was simply in the air at that time or if it was the creation of a specific person or group of persons. It is therefore also problematic to say who created the first Live-looping composition. However, what can be clearly shown were the strong personalities of the time who would go on to leave their mark in history emerging as the leaders of this new form of music composition.

History

During the early 1960s a group of young composers came together in San Francisco at the Tape Music Centre. Among them were Terry Riley, Pauline Oliveros, Steve Reich, Morton Subotnick, Richard Maxfield, and Ramon Sender. However, many of these composers had previous contact with each other, for example, Terry Riley and Pauline Oliveros studied together at Berkley. This group of composers with the addition of La Monte Young would go on to create a new genre of music called Minimalism of which Live-Looping was a part. I believe it is important to recognise that this melting pot of composers exchanging ideas and experiences was extremely significant in the forming of each composer’s individual style. One of the reasons that it is difficult to state an absolute inventor of Live-looping is because of the nature of the sharing and creation of so much innovative music by this group of people at that time. However out of all of this it was Terry Riley whose early contribution to Live-Looping clearly stood out as being the most prominent.

Terry Riley

Terry Riley studied at The University of California at Berkley in the autumn of 1958 and it was here he met La Monte Young whose influence upon Riley was considerable. Young introduced Riley to the ideas of Cage after he returned from a period of study with Stockhausen (in Darmstadt, Germany in 1959). Young with the help of Riley tried out his Cage-influenced ideas as composers in residence for the Anne Halprin Dance Company. Young also introduced Riley to the idea of repetition as a form of change with his piece *X for Henry Flynt* where a performer would essentially repeat a loud sound over and over. In the autumn of 1960 Young left Berkley for New York leaving Riley alone. It was around this time that Riley began his experiments with tape loops.

Riley's early tape based compositions were guided by an expert in the field of tape editing Richard Maxfield. His piece *Mescaline Mix* was Riley's first attempts at live looping, "with the help of Ramon Sender, he made use of an Echoplex, a primitive electronic contraption allowing a sound to be repeated in an ever accumulating counterpoint against itself"¹. It is clear that these early experiments with tape looping had a profound effect on Riley, this was the beginning of his fascination with repetition.

In 1963 Riley went to Europe where he was influenced by ragtime, marijuana, Moroccan music, and the Jazz music of John Coltrane with its fusion of non-western music. While in Europe the combination of drugs, modal music and a fascination with

¹ p98 Potter, Keith. *Four Musical Minimalists* (Cambridge: Cambridge University Press 2000)

repetition lead Riley to discover his identity as a composer. It was here that he oversaw the creation of what would become the foundations for the Live-Looping movement.

In 1963 Riley gained access to the ORTF radio studios in Paris where he described the layering looping technique he had used with an Echoplex in his piece *Mescaline Mix* to a French technician. The technician set up a similar system with a pair of Ampex tape machines. The system consisted of a matched pair of decks with the tape threaded around both, one deck was set to record (input) the other playback (delay) the output of the playback deck was then fed back into the record deck allowing a musical phrase to be repeated. Riley termed this arrangement of tape recorders the 'Time-Lag Accumulator' on account of its ability to accumulate the audio input over a period of time. This system became the blueprint for live looping and would be copied by other artists such as Pauline Oliveros, Brian Eno, and Robert Fripp.

Having discovered this processing system Riley went on to use it to write *She Moves Me* and *Music For The Gift*. In the piece *She Moves Me* Riley took the input of an actors voice and layers it using the Time lag accumulator, creating vast washes of text. The piece *The Gift* used different source material and was made up of reassembled lines from a cover of Miles Davis's composition *So What*. Riley had recorded Chet Baker's band playing the song, recording each instrument separately, this allowed him to cut up the piece and creatively reassemble it using just the phrases he wanted. *So What* is an intensely modal piece and the links between Riley cutting up and assembling the modal phrases of it for repetition and accumulation in *The Gift* and his later work *In C* which also uses a similar process are clear.

Riley now returned to San Francisco and continued his work with tape loops and processing via the Time-Lag-Accumulator. Riley created 3 works with text furthering his explorations from the piece *She Moves Me*. The first of these was simply entitled *I* (July 1964) “This is based entirely on the single word I, spoken using a variety of inflections and subject to feedback processes which accumulate powerfully to produce a continuous drone.”² Followed by *It’s Me* and *That’s Not You* which were created in late 1965 using only a single voice and the time-lag accumulator processing. This work that Riley did with text and the use of tape recorders would have a profound effect on the young composer Steve Reich who had befriended Riley at this time. (Reich first tape piece *Its Gonna Rain* was premiered at the Tape Music Centre in Jan 1965) Riley’s other tape pieces from this time also showed him making extensive use of tape editing and time-lag processing these were “*Shoeshine* (June 1964), *The Bird Of Paradise* (summer 1964), and the piece entitled *In A flat October* (1964).”³ In 1967 Riley acquired his first synthesizer which he used on the piece *You’re Nogood*. This composition was to be the first of many he would write for synthesizer and tape delay.

Around 1964 Riley began using the Time-Lag Accumulator to process his keyboard and saxophone improvisations in live performance. This was another important watershed. These improvisations saw the creation of what Riley would call ‘Solo Time-Lag Music’. Riley combined keyboard drones with layers of improvised soprano saxophone all processed through the ‘Time-Lag-Accumulator’ to mesmerising effect. The first of these pieces was called *Dorian Reeds* (performed early in 1967) following that

² p118 Potter, Keith. *Four Musical Minimalists* (Cambridge: Cambridge University Press 2000)

³ p117 to 119 paraphrase Potter, Keith. *Four Musical Minimalists* (Cambridge: Cambridge University Press 2000)

came *Poppy Nogood and the Phantom Band*, which was essentially an extension of the same idea.

Through this creative use of technology Riley redefined the role of the solo performer. Through his use of tape delay Riley was able to compose, improvise and accompany himself in real-time creating multi part arrangements. This opened up new possibilities for real-time performance freeing up the solo performer to achieve soundscapes that were previously impossible. Riley would continue to refine his improvisational art throughout the late 1960s and early 1970s this can be heard on the 1969 recording *A Rainbow in Curved Air*. Riley's recorded work still represents some of the most complex and well-executed use of Live-Looping even today.

Other Loopers of the time

Terry Riley was not the only person to explore the possibilities of looping during the 1960s. In fact it is entirely arguable that Riley did not invent this technique. My research has revealed a much cloudier picture of the early use of tape delay in music composition than has been previously suggested. It does however seem that the explosion of tape delay composition centred around one particular place in America, The San Francisco Tape Music Centre (S.F.T.M.C.).

The San Francisco Tape Music Centre was founded in 1961 by Morton Subotnick, a former member of the Mills College Music Department, and Ramon Sender, who received his M.A. in composition from Mills in 1965. Although the original impetus behind its formation was to meet the needs of a small group of

composers- including Sender, Subotnick, Pauline Oliveros, Terry Riley, and Anthony Martin – who needed access to equipment and a venue to present concerts of experimental music, the Tape Music Centre quickly developed a unique philosophy and aesthetic mission.⁴

By questioning the various members of the S.F.T.M.C. I have attempted to demonstrate that there is an alternative argument to Riley being the tape delays sole inventor. Morton Subotnick informed me on the subject of tape delay that,

This technique and others like it were being used by the late 50's..some in San Francisco by the Tape Centre (Ramon, Pauline and myself).Vladimir Ussachevsky was using all sorts of time lag. Mauricio Kagel had a work for percussion where the material the musicians played was recorded and brought back later in the composition. It would be a gross simplification to give the credit to any one person, it was in the air and remains in the air. The introduction of the tape recorder made us all aware of the possibility of bringing things back, altered and/or layered.⁵

Pauline Oliveros took a similar view to that of Subotnick about the early use of tape delay (a la the Riley set-up) in music composition. She informed me that she felt that the system was invented by a group of people working together calling it a “community of interest”⁶ going on to say,

⁴ http://www.mills.edu/LIFE/CCM/CCM_Archives.html The History of The San Francisco Tape Music Centre.

⁵ Morton Subotnick via private email 19/3/2003

⁶ Pauline Oliveros via private email 10/3/2003

The system was already invented. Various composers around the same time discovered that echo could happen with tape delay. The first loop that I was involved with was during a 1960 concert with Ramon Sender and Morton Subotnik. A tape was strung across two machines for a long delay that picked up our sounds as we improvised. The concert was reviewed by Alfred Frankenstein in the San Francisco Chronicle.⁷

Pauline also confirmed to me that all the composers within the S.F.T.M.C were experimenting with this technology in the early 1960s. Oliveros confirmed her role in tape delay based composition saying that most of her time from 1960 onwards was devoted to it. There is no doubt that Oliveros went on to become one of the premier composers and innovators of the live-looping movement affirming her commitment and expertise with pieces like *I of VI* (1966) and *C(s) for Once* (1966).

Another person of significance that I spoke to was Ramon Sender also a founder member of the S.F.T.M.S. Interestingly he took the opposite point of view to Oliveros and Subotnick saying “To my knowledge, Terry was the first to put one tape through two Wollensaks (tape recorders) set ten or so feet apart, the first one on ‘record’ the second one on ‘Playback’. I copied his technique various times in performances.”⁸ Ramon also revealed that he tried to find different applications for the Riley set-up demonstrating the fact that a community of people were experimenting with this technology at the time. Sender also informed me that the earliest and only piece he wrote to use the Time-Lag Accumulator system was called *Piano Canon* and was presented at the San Francisco

⁷ Pauline Oliveros via private email 10/3/2003

⁸ Ramon Sender via private email 12/3/2003

conservatory in 1962 (approximately) and consisted of a microphone placed inside a piano with two tape recorders spaced apart a la the Riley set-up.

When I asked Terry Riley about what other members of the San Francisco Tape Music centre had said his response was

It is entirely possible that this idea occurred to many people around this time and as I could not possibly be everywhere and hear everything I could not verify this. I had never before heard the kind of echo effect that was achieved in my 1963 recording of *Music For The Gift* before it was done in Paris. So for me it was the first time.⁹

Whether Riley was the first Live-Looper may remain unclear, however what can clearly be stated is Riley's defining role in being the most acclaimed and accomplished Live-Looper of the time. His role is perhaps best described by himself

Throughout the 1960's and early 70's I worked exhaustively and almost exclusively with delay techniques in live performance with works like *Poppy Nogood And The Phantom Band* and *Rainbow In Curved Air*. These are documented in my CBS recordings and others. If I was not the first, which is possible, I think I was the first to develop these forms so intricately and extensively.¹⁰

⁹ Terry Riley via private email. 12/3/2003

¹⁰ Terry Riley via private email. 12/3/2003