

# **Reconstructing *An Avalanche***

## **Preparing Lejaren Hiller's Theatrical Work for Performance**

*by Ethan Hayden, Brendan Fitzgerald, and Megan Kyle*

*With funding from the Muriel Wolf and Albert Steger Endowment, and with help from the UB Music Library, contemporary ensemble Wooden Cities presented a full program of works by Buffalo composers. Held on February 7, 2014 in Lippes Concert Hall, the Inaugural Muriel Wolf and Albert Steger Endowment Concert was titled "(Re)Constructions", in that it consisted in part of new pieces (including six world premieres) and reconstructions of pieces from Buffalo's rich history of contemporary music. Of the latter category, Lejaren Hiller's *An Avalanche* was the piece that required the most significant effort to reproduce.*

### **Lejaren Hiller:**

Although Lejaren Hiller began composing at an early age (he had a particular passion for big-band jazz), his first career was as a chemist, with composition initially relegated to the side. Hiller studied chemistry at Princeton, earning his PhD in 1947, meanwhile studying composition with Milton Babbitt and Roger Sessions. After graduation he began work as a research chemist with the DuPont Company in Virginia, but continued to compose. Hiller left the corporate world five years later in favor of academia, becoming a chemistry research associate at the University of Illinois. Working with the university's room-sized ILLIAC computer led to his pioneering use of computers in musical composition. In 1958, Hiller earned an MM in music composition from the University of Illinois and moved into the music department, establishing an electronic music studio there.

Hiller was not immediately accepted into the music world, considered an interloper by some who were skeptical of his background as a scientist. His first commissions were instead from the world of theater. When he was finally welcomed into the music scene, it was through a multimedia collaboration with John Cage called *HPSCHD* (1968), which involved seven harpsichords and 59 amplified channels of audio playback. It has been suggested that Hiller's theatricality was influenced by his father, Lejaren Hiller, Sr., who was famous for his photographs of meticulously staged tableaux-vivants and is often described as more of a director than a photographer.

### **An Avalanche:**

Lejaren Hiller composed *An Avalanche* in the same year that he came to Buffalo to co-direct the Center of the Creative and Performing Arts with Lukas Foss, replacing Allen Sapp who had recently resigned (Sapp's *And the Bombers Went Home* was also included in Wooden Cities' program). *An Avalanche* was premiered on April 19, 1968 at the Depot Theater in Urbana, IL.

Later that year, on November 3, 1968, the piece saw its Buffalo premiere at the same concert on which Foss's *Paradigm* (also performed at the Wolf Endowment concert), had its Buffalo premiere.

*An Avalanche* is a music-theatre piece for “pitchman, prima donna, percussion, player piano, and pre-recorded playback.” It is indeed, as the title suggests, a bombardment—each character, seemingly unaware of the others, shouts, belts, or smacks out their chaotic parts. Meanwhile, the addition of props and supporting characters—stage hands who read Batman comics and fall asleep, costumieres who hover around the prima donna and assist in her myriad costume changes, and an audio technician fussing over his equipment—adds to the spectacle. Through this sensory onslaught, the piece delivers a sharp jab at the entire enterprise of high-brow musical culture, from the opera to the academy to cultural snobbery.

It seemed fitting to Wooden Cities to perform this theatrical piece, with its chaotic quotations of opera arias, as a tribute to Muriel Wolf, who was so monumental in the Buffalo opera scene.

#### **Player Piano:**

The most difficult element of the piece to reproduce was the player piano. Hiller specifies that the piece utilize a player piano, and not just *any* player piano:

This should preferably be an upright piano. It should be clearly visible to the audience and be as ornate and elegant as possible. It should have an electrically driven "Duo-Art" type player system (with sustaining and soft pedals slots and dynamics register split between E<sub>4</sub> and F<sub>4</sub>). The keyboard faces the audience. The bench is *not* present.

The Music Library had some copies of the original piano rolls, so we planned to play these at the performance on a borrowed or rented player piano. Finding a player piano proved a difficult and involving task.

In September 2013, Brendan Fitzgerald and Ethan Hayden (Wooden Cities' director and associate director, respectively) met with former Music Department piano technician, Gary Shipe. Gary advised us to speak with several area experts including those associated with Automatic Musical Instrument Collectors' Association (AMICA), as well as Bob Berkman of QRS Music Technology. We had originally planned to obtain a player piano from one of these individuals.

Over the course of the next few months we discussed the project in greater depth with Berkman, who informed us of the particular coding system for the DuoArt Reproducing pianos. This system involved the utilization of marginal perforations used for dynamic and sustain controls. Berkman told us that the use of the sustain feature of the coding system made the very edges of the roll unstable. The rolls could break or give inaccurate performances because the loose edge could

easily be caught up in the mechanism, or read by another area of the tracking bar. Berkman suggested we get the rolls re-punched before trying to get a recording or performance from them.

In December 2013, Brendan contacted David Saul of Precision Music Rolls in El Cajon, California. Saul responded immediately and UB associate librarian John Bewley shipped the source rolls to California. Saul used an electronic scanner and added "chaining" to the margins of the roll to strengthen it. Precision punched six new rolls and sent them to the Music Library.

In the meantime, Brendan contacted several owners of DuoArt reproducing pianos. Charles Hannon took interest in the project but felt it would not be possible to move his instrument. It was at this point that the decision was made to abandon trying to use an actual player piano during the performance. Instead, we decided to create a high-quality recording of the new rolls, and play it back electronically. A piano would still be set up on the stage according to Hiller's specifications, but the actual piano part would be played back via the electronics instead of the piano itself.

On January 15, 2014, Brendan and Ethan visited the home of Charles Hannon in West Seneca, NY to record the rolls received from David Saul. During the recording, Ethan noticed that there were several inconsistencies between the performance of the roll and the piano part as it appeared in the score. We assumed there were problems with the tracking mechanisms and action response of Hannon's particular instrument. In addition, several notes in the piano's bass range were muted, further impacting the usefulness of the recording.

Fortunately, the Music Library had digitized many of Hiller's reel-to-reel tapes, and they provided us with a single sound file of *Avalanche* materials. Included in this sound file was the piece's electronic parts, as well as recordings of the isolated player piano part. With the performance date quickly approaching, the decision was made not to use the recording of the new rolls made on Hannon's piano. Instead, we relied on these older recordings made by Hiller—which, while of slightly lesser quality, contained a perfect representation of the piano part. Ethan used noise reduction software to clean up these recordings, which were then played back electronically during the performance.

On February 25, 2014, a little over two weeks after the performance, Ethan and Brendan visited Berkman's home to discuss the rolls further. They compared the original roll to those that were newly punched. It turned out that many of the discrepancies were due to the aforementioned "chaining" process, in which long slits in the roll are made more stable by being converted to several shorter slits that are chained together. The long slits in the margins (for the dynamic and sustain controls) were chained into shorter, more stable slits—and this seemed to work without issue. However, Hiller's composed piano part featured many quickly repeated notes (dotted-16th to 32nd noted figures, et al.), and many of these quick repetitions were interpreted as chains and converted into longer sustains. This resulted in instances in which a note which was quickly repeated was only heard on its initial attack. Berkman suggested a close analysis of the new rolls,

identifying these problem spots in pencil, and submitting the rolls back to David Saul for re-punching.

### **Electronics:**

In addition to the player piano, the performance of the piece requires two loudspeakers: one for the pitchman, to amplify his address, and the other for the tape part. Hiller specifies that the tape recorder and electronic paraphernalia be assembled on stage in front of the speaker's platform and tended to by an audio technician. For *Wooden Cities*' performance, a set of stereo speakers were set up on either end of the stage, which were used to amplify not only the pitchman and electronic playback, but also the prima donna and the player piano samples. This same setup was used for the electronic components of Foss's piece, as well as the pieces by Brendan and Michael McNeill, both of which also had electronic elements. The audio equipment remained on stage for the duration of the concert.

The original performance of *An Avalanche* included a 15ips monophonic cue tape, consisting of short phrases recorded by Herbert Marder, John Cage, Jerry Brieske, Jean Michl, Frank Parman, and Jaap Spek. Fortunately, this tape was part of the materials that were digitized by the Music Library. The recordings were older, and a little noisy, so Ethan applied some noise removal to them as well. These samples were then ordered and collected with the player piano samples, which were then triggered by a Max/MSP patch controlled by the audio technician.

The character of the Audio Technician was played by Zane Merritt, who triggered the samples during the performance. Christopher Jacobs, from the UB Music Department, acted as the actual audio technician during the Wolf Endowment concert, though he remained out of site during the performance.

The score—which, as described below, often reads more like theatrical instructions than a standard musical score—states that one of the first things to happen in the piece is a loud burst of feedback, which occurs while the audio technician is setting up and testing the microphones. Rather than risk damaging the speakers by actually producing feedback, a feedback sample was taken from the 1986 Wergo recording of *An Avalanche* (Wergo 60128). Thus the feedback heard during the live performance at the Wolf Endowment concert was actually generated at a much earlier performance of *An Avalanche*.

### **Rehearsal and Preparation:**

While we knew this piece would be one that would stretch us as performers and engage the audience in exciting ways, we faced several challenges in preparing the actual performative material.

In looking at the score, one can see that Hiller had meticulously lined up all the various parts playing in different meters and at different tempi with immense detail and among other performative actions as well. After consulting various recordings it seemed to us that the piece had always been approached as a Happening-esque collection of individual events staged all in the same place with less regard for the vertical alignment of the individual components (e.g., is it more important for the singer to sing a certain phrase in specific alignment with the drumset, or rather that she have her giant cowboy hat properly situated and sing when ready?). The real question became all about how to make this theater piece alive while still following the score's specific instructions.

The drumset part in particular had some unique requests. Firstly, the various stylized sections all had their own tempi. To assist Brendan in preparing this, Ethan assembled a click track for the entire piece, allowing Brendan to work on transitioning from one tempo to the next. In our first rehearsal, Brendan began to notice that the click track, while helpful, seemed to undermine the spirit of the chaos produced by the different parts. After a few more rehearsals, Brendan decided to abandon the click track (an aid which was probably not used in the original performances anyway), instead making the tempo shifts from memory and relying on Hiller's metric modulation indications (e.g., five quarters in the space of four).

The second major challenge in the drumset part was in some of the percussion writing itself. While some of the stick changes and last section's tempo were challenging, the real issue involved a few small impossibilities: asking the percussionist to play three instruments at once (e.g., a ride cymbal, floor tom, and snare drum simultaneously). Since the drumset part is clearly a series of stylistic quotations, this led Brendan to feel more and more that the strict interpretation of the score would not yield an appropriately stylized performance. With that, Brendan leaned toward playing each section like a series of tape splices that were copied and repeated, until the next stylistic splice came about. It was this mix of acknowledging Hiller's computer music background and his desire to quote various percussive styles that really shaped the performance.

Ethan (pitchman) and Esin Gündüz (prima donna) noticed similar difficulties in reproducing the specific requirements of their parts. For instance, some of the physical movements of the pitchman were so specifically notated in a step-by-step manner that executing them as written would require a wooden, robotic performance, one that seemed out-of-step with the pitchman's slick used-car-salesman character. With these performers reporting similar sentiments to those that Brendan had about the meaning of the score as a document to help guide the performance, our rehearsal techniques changed slightly. We worked on aligning certain arrival points while not worrying about each beat/measure mapping perfectly in time, so the truly chaotic effect could be experienced by the audience. From here, the musical elements fell into place and our attention turned to the theatrical components.

We assembled the cast of people within the group and even doubled some parts (adding extra stagehands and an additional costumiere) to make the most of the ensemble. Our thinking here was both practical and artistic: while having three stagehands meant more wacky characters, it also allowed the pitchman, who collapses in a coughing fit in the final act, to be lifted more safely onto the hospital bed. It also allowed for each character to become more fully developed by the individual, allowing each of Hiller's distinct character description to be fleshed out into a more complete character. When stage roles were being assigned our (male) cellist, T.J. Borden jumped at the chance to play a homely maid to assist the prima donna, while Megan Kyle joined him as the prim-and-proper maid. Similarly, guitarist Zane Merritt found his niche as the aforementioned frazzled audio engineer, and Evan Courtin, Nathan Heidelberger, and Michael McNeill, the all uniquely indifferent stagehands. Each was able to add a unique element to the performance—even if it were to only fall asleep at the piano.

### **Staging:**

Hiller includes elaborate staging instructions, ranging from collections of props to costume changes, to sequences of events performed by the various characters involved. Most of these stage directions were given in prose instructions in the score. To make these directions more manageable in rehearsal, Ethan created a staging score (attached), which detailed the order in which specific actions were performed. Some slight changes may have been made to accommodate the particular staging/performance situation at Wooden Cities performance (e.g., the additional stagehands), but these were kept to a minimum.

Other than the stage piano, which stood in for the player piano, one of the most significant (and difficult to acquire) props was a hospital bed used in the piece's final act. While the score only calls for a stretcher, Wooden Cities found such an item difficult to acquire, instead opting for a hospital transport bed. Evan worked at Buffalo General Hospital and assisted in procuring the bed for the performance.

Other props were acquired from thrift stores, performers' attics/basements, and other sources. The "bust of Scriabin" mentioned in the piece was replaced by a bust of Wagner provided by the Music Library. In addition, the Music Library also provided many of the music textbooks that decorated the stage (Ethan checked out an inordinate number of these volumes a few days before the performance).

### **Performance:**

All this preparation culminated in Wooden Cities' performance of *An Avalanche* at the Wolf Endowment concert on February 7, 2014. As an ensemble, we worked very hard and we feel that we succeeded in capturing Hiller's intent in the piece, despite the few performative alterations and technical accommodations the performance required. While there is no way to know if we did

exactly as Hiller himself would have suggested, the result seemed to have a real resonance with the audience, while also acknowledging the very living work Hiller created.

We were thrilled and honored to have David Hiller in the audience that night, Lejaren Hiller's son. After the performance, David had only high praise for our interpretation of his father's work. We were very grateful to Music Library for all their assistance and support in producing this, and the other works on the program.