# The Oral History Review
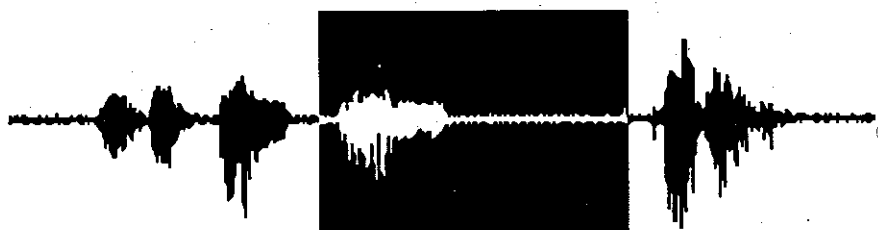
we did some    uhmm                    programming

we did some    uhmm                    programming

we did some    programming

# Choices in Editing Oral History: The Distillation of Dr. Hiller

*J. A. Prögler*

After completing an interview, we begin the task of organizing and editing our tapes and notes. During this process, we must continually make choices, and often these choices are interrelated and interdependent; making one choice often lead us to confronting another. This article considers such editing choices on several different levels, ranging from the mechanics of transcribing a distinct set of interview problems, to the question of making them useful in presentation, to the broader issue of editing sound as well as written documents. On this last level, we will see how new technology now gives the old issue of orality a particular vitality. Editing permutations will be presented, culminating in a demonstration and comparison of two routes to a final prose transcription—one route derives from editing a visual document; the other explores editing the aural document, before transcribing, with new tools of sound-processing designed for an aural medium such as radio.

These issues were encountered in work on a series of interviews with Dr. Lejaren Hiller, a well-known modern composer and computer music specialist. The circumstances of the interviews, the contexts in which the transcript might be utilized, and the subject matter itself raised editing challenges and suggested particular editing criteria. Before elaborating upon these issues, some background of the interviews is necessary.

## Interviewing Lejaren Hiller

Throughout his long career, Lejaren Hiller continuously utilized the available computer technology to make music, and his techniques and approaches evolved side by side with the technolo-

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gy itself. Originally schooled in chemistry, he became a pioneer in the field of computer and electronic music in the late 1950s, and has always been highly respected for his work. He has published numerous pieces, as well as several technical documentations of the computer programs and techniques that he used to produce his compositions. Many of Lejaren Hiller's works are in the Music Library of SUNY at Buffalo, where he was a professor from the late 1960s until his retirement in 1989.

When I came to Buffalo to study with Dr. Hiller in 1988, I was very impressed with his approach to music composition with computers. After working with him for several months, I realized that his vast knowledge and experience would make for some very interesting oral history, and I subsequently began a series of interviews in April 1989. In order to interview Dr. Hiller effectively, it became necessary to familiarize myself with his work and more broadly with the role of computers in music. This background preparation freed Dr. Hiller to talk about his work on its own terms, without his worrying whether or not he was speaking beyond my level of comprehension. The interviews centered on the intellectual process of making choices in composing as well as on his experiences in designing and producing computer programs and other tools for electronic music composition.

An important factor influencing my own choices in editing was the consideration of who would read and utilize the interview transcript and its various permutations. The interviews basically contain Dr. Hiller's reflections on his work with computers and electronic music throughout a career that spans virtually the entire history of the field. His reflections can be especially useful to anyone researching the history and development of electronic and computer music, and excerpts from the interviews can be utilized in journal articles and the like. In the future, someone may wish to undertake a complete biography of Dr. Hiller, in which such interviews can have a prime role. While editing the interviews I had such ends in mind, and the diverse possible uses of the material had much to do with the various editing permutations that resulted. Dr. Hiller's health was another key factor influencing choices in editing. Prior to the interviews, he had suffered a serious illness that affected his short-term memory and slowed his long-term recall. The interviews demanded patience, and I later had to make some important editing choices stemming from this situation. To

illustrate these and other choices, I will use an excerpt from one of the interviews as a demonstration of the various stages of editing.

## Distillation #1: The Verbatim Transcript

After finishing the first interview, I immediately began the transcription process. For the initial verbatim document of this interview, I decided to transcribe each and every utterance from the forty-five minute tape. This included every "oh", "um", and "ah", as well as all other vocalizations, hesitations, and repetitions. Dr. Hiller often hesitated and faltered while struggling to recall dates, names, and other specifics, but beneath this his stories were very detailed and interesting. What I was unsure of was how these stories would be transmitted once the transcription began to take shape, and this is the main reason why I decided to include everything in the written document from the outset, instead of removing seemingly useless utterances right away.

I view the verbatim transcript as a written record of everything that was aural during the interview. But at the same time it is a written record of an oration, not a replacement for the oration. Therefore, I did not think it necessary to try to capture inflections, stresses, or the sonic and time details. This type of notation would have cluttered up an already busy document, and the resulting nightmare of nomenclature can only complicate the oral history process. I did not want the reader to be distracted by the timings and other markings which some oral historians use to fix an oration into precise written form. To this end I chose to type the text in a way that prunes transcription to its barest essentials. The idea was to gradually distill the words down to something that would eventually become very readable, and impart Dr. Hiller's story to someone who was interested in the story itself, not necessarily the exact manner in which it was told.

The sense of orality that can be retained in this kind of transcript results from using a stream of consciousness style of presentation, characterized by little or no capitalization and punctuation, which seeks to capture the flow of ideas as they come. The approach appealed to me after re-reading some of the works in this style by novelists like William Faulkner, William S. Burroughs, and James Joyce. In this pared-down style, typographic conventions do not hinder the visual flow, which can then draw the reader into the material by suggesting the informal continuity of an oral

presentation. Some non-European languages read like this as well, for example Arabic with its strong and still intact oral roots that are accentuated and enhanced by a minimal usage of punctuation.

Thus I chose to avoid capitalization and most punctuation, and also avoided the intrusive poetic method of transcription. I did, however, use commas to suggest pauses in the narrative flow, and these do give some clues as to the overall temporal progression of the interview. In a sense, my verbatim transcript can be considered as a catalogue of what words were used and in what order they were presented. For details of vocal articulation beyond what is presented here, the researcher who desires these facets must consult with the tape. The verbatim transcript is nothing more than the first step as the oral record enters the visual world.

The excerpt I present here for illustrative purposes is a 3 minute 23 second segment from the original tape of our first interview, which features Dr. Hiller's description of a music transcription device. The numerous hesitations and repetitions which characterize his speech are very apparent, and at first make the document quite difficult to read. At the same time it was clear to me that under the extra verbiage there was a unique voice telling a fascinating story.

## Verbatim Transcript:

lh: uh, well that was written in um, that was written in um, oh by the way i should mention with the illiac, eh subsequent to the illiac suite we did some, we did some um, programming of um, of um, score composition, in other words how to lay out an actual score with musical notation and i went um, uh to a um, fellow in denver colorado his name was um, um, um, he was a composer, and he devised this thing called the um, oh boy the music, it was called, it was a musical typewriter and you could lay out the material, uh, uh, uh, you could lay out musical score, and with a typewriter, and then um, again i could show you some photographs of that if you're interested

jp: oh i'd love to see those yeah

lh: yes, but i don't have them here, i have them at, at least i think i have them at home, uh yes i do and um, and um, so it was very tedious but with the music typewriting system we are i wrote enough um, uh algorithms, uh for the music typewriter so that you could automatically uh, make the thing justify on the right hand margin and all that the first this was the first of the very of the um, of the um, um, first of the uh music um, compositional you know to lay out score it was the first thing

jp: graphics yeah

lh: yeah to do graphics, and uh so uh, with this um, composer, gee i've forgotten his name would, probably come to me in a minute but let's not waste time on it, uh, uh i was able to write algorithms so that you could justify the right hand margins and things would line up by inserting spaces and so on and so forth i wrote this program

jp: extend a measure here and there

lh: yeah, uh to extend it and insert space and so on so you you get neat neat uh printout

jp: mm hm

lh: and i will show you some photographs of how the machine worked, and show you examples of um, some of the results we got before and after before you had everything all higgledy piggledy (jp laughs) and then afterwards, uh when it came out as neat uh, as neat score

jp: uh huh, good

lh: and then i also wrote a program with this same machine to extract performance parts

jp: ohh boy

lh: yeah, and to transpose them

jp: this was in in the late 50s?

lh: this was this was in um, this was in the same period of the illiac suite which is 1945

jp: ohh boy

lh: yeah, 1945 or 46, lets see, what was the uh, 40, when did i write the illiac suite, uh 58

jp: yeah

lh: yeah of 1958

jp: so in conjunction with that is, you had this, uh, notation, package in a sense

lh: this no, notation package yes, and um, and um, so i wrote that at the same time since we were working with the same um five channel tape with the illiac computer

The main thing I realized from transcribing this excerpt was that no matter how much we tweak and modify or clarify our subject's phrases, we are still and will always be dealing with a typographic, and therefore, purely visual medium. We are fixing an

oration with print, and once in the new medium it will be viewed as such. It is not feasible to expect people to learn to read another form of typography, much worse a more complicated one, in order to appreciate oral history. We've been typographic beings for several centuries, and it is not the task of oral historians to change that tendency and its implications. But we can play with it a little here and there, especially by taking things out.

## Distillation #2: The Edited Transcript

The next stage involves taking the verbatim transcript and distilling it down to an edited transcript, a form tending towards the visual conventions of typography.

The resulting document is intended to approximate the kind of interview presentation one might find in a periodical or journal, and also to provide a basis for extracting quotes for use elsewhere. I tried to envision the contents of the interview in various contexts, asking myself in what form can Dr. Hiller's story be most appreciated and who would be reading it in that form? This is an oral history of a technological process, intended to make sense as an informative document about Dr. Hiller's use of technology in music composition—not as a document of Dr. Hiller's speaking ability or speed of recall. I concluded that the inclusion of any extraneous utterances or notations, as well as repetitions, would only detract from the story being told in its present form. I decided again to leave out most capitalization and to keep punctuation to a minimum, the intention being to retain some of the original stream of consciousness flow. My interjections were also retained for the time being. At all times, I strove to keep intact the original voice of Dr. Hiller, and the story began to emerge with more clarity. All the constructs of his orations remain intact, and his voice can in a sense still be "heard" as the transcript is further distilled. But the important thing to remember is that we're now moving along a path in which we're editing a visual document meant to be read, and consequently moving further away from the aural realm.

## Edited Transcript:

LH: subsequent to the Illiac Suite we did some programming of score composition. in other words, how to lay out an actual score with musical notation, and I went to a fellow in Denver Colorado, he was a composer, and he devised this thing, it was a musical typewriter and you could lay out the material. you could lay out musi-

cal score with a typewriter. it was very tedious, but I wrote enough algorithms for the music typewriter so that you could automatically make the thing justify on the right hand margin and all that. this was the very first of the music compositional tools, to lay out score. it was the first thing. I was able to write algorithms so that you could justify the right hand margins and things would line up by inserting spaces and so on and so forth. I wrote this program.

JP: extend a measure here and there

LH: yes, to extend it and insert space and so on, so you get neat printout. I can show you some photographs of how the machine worked, and show you examples of some of the results we got before and after. before you had everything all higgledy piggledy and then afterwards, when it came out as neat score. and then I also wrote a program with this same machine to extract performance parts, and to transpose them.

JP: this was in the late 50's?

LH: this was in the same period of the Illiac Suite, which is 1958.

JP: so in conjunction with that you had this notation package, in ˆa sense...

LH: this notation package, yes. I wrote that at the same time since we were working with the same five channel tape with the Illiac computer

We may wish to call this type of transcript "smoothed-over" verbatim. I modified the typography to make it more readable, and to be read quicker. We mustn't forget that the end result of these labors will eventually be read by someone else, someone who didn't go through the editing process and someone who just wants to see what Dr. Hiller has to say about his work. Whether we like it or not, we are now working within a purely visual, typographic medium. The use/abuse of capitalization, punctuation and form may be debatable—but I made all choices based on evolving visual sensibilities, in a conscious effort to retain a sense of the aural in a increasing visually oriented document.

## Distillation #3: The Prose Transcript

The third editorial permutation appears as a prose transcript. This is a form intended to be scanned as straight, unobtrusive typographic prose, almost as if it was intended as such from the beginning. All of my questions and comments were eliminated, and standard visual conventions are used throughout. This meant full

capitalization and punctuation, as well as relatively complete sentences. Regarding this last point, I chose to add rejoinders in order to make sentences read more easily, and I also occasionally regrouped or eliminated statements.

## Prose Transcript:

> Subsequent to the Illiac Suite we did some programming of score composition. In other words, how to lay out an actual score with musical notation, and I went to a fellow in Denver, Colorado, he was a composer, and he devised this thing, it was a musical typewriter and you could lay out the material. You could lay out musical score with a typewriter. It was very tedious, but I wrote enough algorithms for the music typewriter so that you could automatically make the thing justify on the right hand margin and all that. This was the very first of the music compositional tools, to lay out score. You could justify the right hand margins and things would line up by inserting spaces and so on and so forth. I wrote this program, to extend it and insert space and so on, so you get neat printout. I remember some of the results we got, before and after. Before you had everything all higgledy piggledy, and then afterwards, it came out as neat score. And then I also wrote a program with this same machine to extract performance parts, and to transpose them. This was in the same period of the Illiac Suite, which was 1958. I wrote that at the same time since we were working with the same five channel tape with the Illiac computer.

The prose style of transcription is especially useful when space becomes a limitation. It can be used as an insert in another person's work, or can stand on its own as narrative oral history. This is a fully visual typographic rendition of the original aural document. After reviewing it, however, I felt that the process didn't end there, and decided to return again to the original sound document and try some editing from a different point of view, trying a different route toward the same end. What would happen if different initial choices were made while the document was still in its aural form? How could earlier aural based choices affect the later visual based choices?

## Massaging the Means

While working with the written document, I used a computer to juggle and process my transcriptions and was able to retain previous permutations while constructing others. In essence, I simply sculpted a copy of the previous document into a new form. This

method of editing got me thinking about applying computer technology to the aural document. I was interested in the production of radio documentaries and listened closely to radio documentary programs that made use of interview excerpts—scrutinizing them more closely than they were intended to be. The most striking feature I discovered was that I heard very little extraneous speech, and soon realized that radio is a very tightly controlled oral/aural medium. This is partly due to time constraints analogous in a sense to the space constraints of the written medium.

Upon returning to the Hiller tapes with an ear towards radio documentary, I immediately heard that the interviews could not work as radio documentary in their original form. There was simply too much hesitation and extraneous vocalization to make the interview listenable in a controlled environment. These utterances don't seem to bother us much when rendered by a live person in an interactive situation, but they suddenly become very tedious on radio, especially when paired along side with the calculated speech of a well-trained radio orator, whose statements, it turns out, are actually often re-done and added after the interview is over. As in the visual realm, the aural realm itself suggests certain choices in editing. At this point, I was curious as to how aural-based choices early on would affect later visual based ones.

## Editing the Sound Document

During the past few years, a series of relatively inexpensive computer sound processing software/hardware packages have appeared in the mainstream home computer market. I came across a device called an analog to digital converter, or a "digitizer", which converts analog sound into digital data, and an accompanying software package, which allows computer editing of digitized sound data. I couldn't resist the irony in trying some experiments by distilling Dr. Hiller's orations with the subject of his story—the computer. After wiring the tape recorder directly to the digitizer, I fired off a minute's worth of data into the computer. I say fired, because the computer can sample a sound 22,000 times per second, so you are literally rapid firing a stream of sound data directly into the computer's random access memory bank. Once digitized, the software allows the user to stretch out and enlarge an excerpt, to magnify it in order to more closely isolate the minute details of speech if necessary. At the same time, one can compress an excerpt and

have a macro view in which words and phrases are visible in succession.

In a digitized version of an interview excerpt, one can visually and aurally locate silence, consonants, vowels, complete words, phrase groupings, etc. The user can scroll through the complete utterance by using the mouse and on-screen cursor Selected portions of the soundwave can be viewed in various degrees of magnification, and then edited using the same standard user interface resources that are available for word processing. These include cut and paste commands, which means the system is essentially a sound processor.

After working with soundwaves for a while, one becomes familiar with the visual representations of certain sounds. This is essential in determining the starting point of words and utterances in order to edit things as seamlessly as possible. In a micro view, silence, or quiet room ambience appears as a relatively straight line (see figure 1), and more complicated sounds are reflected by more complicated soundwaves. For example, letters like "s" and "t" are characterized by easily identifiable soundwave patterns known as sibilant consonants. Figure 2 shows a portion of a sibilant consonant in its most magnified form. Vowel sounds tend to have a wider waveform, as in figure 3. It doesn't take long to learn to recognize the waveforms of various sounds.

Very often, a micro view of the components of speech is not even necessary, because entire utterances can be easily identified by the surrounding pauses. For illustration, we can demonstrate the modification of a single phrase within our interview excerpt. In his first statement, Dr. Hiller starts to describe the music transcription device. He begins by saying "subsequent to the Illiac Suite we did some, we did some uhmm, programming..." and continues to recall the device. Figure 4 shows a macro view of the above phrase as a compressed soundwave in its unedited form. Words and pauses are easily locatable, and in this particular case we don't need the micro pinpointing which is possible by stretching out and magnifying the soundwave, as in figures 1-3. The goal here is to remove the repetition of "we did some" and the following "uhmm", as well as some of the surrounding silence. First, we select and highlight the desired section, in the same fashion that one selects a phrase in a word processor. Figure 5 shows our editing choice highlighted. Then, choose "cut" from the editing menu, and re-

figure 1: quiet room ambience



figure 2: sibilant consonant
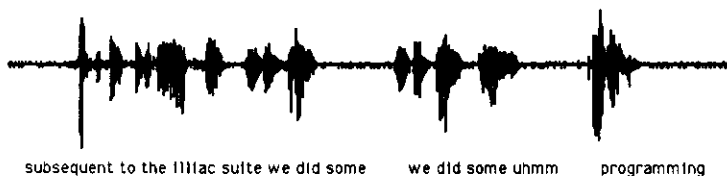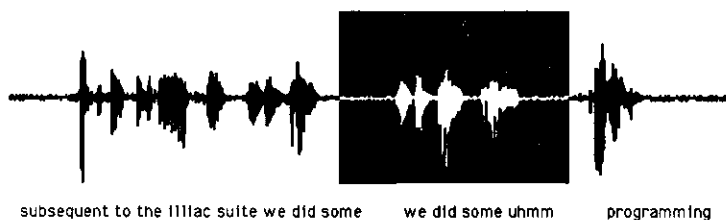


figure 3: vowel sound



subsequent to the illiac suite we did some    we did some uhmm    programming

figure 4: unedited phrase



subsequent to the illiac suite we did some    we did some uhmm    programming

figure 5: editing choice highlighted



subsequent to the illiac suite we did some  programming

figure 6: edited phrase

move the chosen portion. The program automatically joins together the two remaining parts of the soundwave. Now you hear/see it, now you don't. Next, you can check the smoothness of the edit by listening to the complete phrase through the computer's internal speaker, and re-do it if necessary.

It is not the purpose of this paper to further detail the characteristics of sound processing systems, but in general the software allows aural and visual location of sound events. By combining these techniques, the user can exactly pinpoint and manipulate any portion of an utterance as necessary for editing. There are some drawbacks to using a system like this. Sound documents take up an enormous amount of computer memory, so one can only digitize short segments at any one time. My computer's RAM memory capacity only allows about 40 seconds of digitized sound at a rate of 22khz, which gives the best clarity. A slower sampling rate, for example 7 khz, allows longer excerpts, but the clarity suffers accordingly. To store 40 seconds at 22khz, you would need a complete double sided 800k disc, so our 3 minute 23 second excerpt would fill five complete discs.

A hard disc helped me avoid these storage problems, but it too was rapidly filled up. I could not help but to recall Dr. Hiller's description of the early computers needing thousands of punch cards to retain data, and the resultant problem of storage. So the current level of affordable technology is still not ideal for storing and manipulating large amounts of data inherent in digital sound recording. But it is useful for working with small segments of sound, and then later stringing these segments together on tape. As technology becomes more streamlined, we may be able to store and edit complete interviews in digital form. For now, I chose to work with short segments from our original excerpt, and explore editing in the dimension of sound processing to see what kind of visual text can later be constructed by putting more emphasis on aural sensibilities for the earlier choices in editing.

## Distillation #4: The Radio Transcript

Returning to the Hiller excerpt, I divided it into five manageable portions of about 40 seconds each and digitized them separately. I worked on editing each portion, as previously shown in figures 4-6, using my ear to eliminate extraneous sounds and utterances in the name of brevity. Subsequently, each of the five portions was

edited down to roughly half of its original time. The aural results of this experiment were transferred to audio tape and strung together for playback and to check the flow. Though the range of possibilities is endless, it is possible to construct an aural document that sounds quite natural after trying only a few of the possibilities.

While working with the aural document in this manner, a new set of problems arose. These involved dealing with Dr. Hiller's breath groupings and phrases. Sometimes breathing takes place in grammatically awkward places, and if you remove all breathing or pauses, you get unnatural sounding speech. This is, of course, not nearly as apparent in a visual document as it is in the aural document. In the visual form, we can add as well as subtract "sounds", but in the aural document we can usually only subtract. Nevertheless, with careful listening and editing, one can make statements flow together in a very natural way.

The sound document can be further manipulated to insert, for example, variable lengths of silence for pacing. Silence is the only thing that can effectively be added, although digital silence is excruciatingly silent; future experiments might well focus on inserting room ambience instead of pure digital silence.

The distilled sound models can be used to guide the editor of radio programs as to where to make his cuts (radio editing is still usually done by splicing the audio tape). By using the computer as an aid, the editor can try various "cuts", before he actually takes a razor to the precious piece of tape. In this sense, this is a practical wear-saving technique, similar to the technique used by film makers, in which original film footage is transferred to video tape, which can be subjected to unlimited electronic and relatively instantaneous and reversible editing experimentations. The oral historian who wishes to produce radio documentaries can now utilize the same kinds of techniques. Of course, endless choices are not always good choices, and a balance needs to be struck between experimentation and intuition.

Taking this idea a step further, I decided to transcribe my newly edited aural document to see how it would read as a visual document. Using the same rationale and techniques as before, I ended up with what we can call a stream of consciousness edited radio transcript. This time, however, a few extraneous utterances made their way into the transcription—they simply sounded natural to the aural flow. In fact, they were necessary to maintain the flow

of a particular breath grouping. At the same time, their inclusion in the subsequent visual version didn't really interrupt its flow either.

## Edited Radio Transcript

with the illiac, subsequent to the illiac suite we did some, program-ming of um, score composition in other words how to lay out an actual score with musical notation and i went to a um, fellow in denver colorado, he was a composer, and he devised this thing it was a musical typewriter, and you could lay out the material, you could lay out musical score, in with the typewriter

so it was very tedious, i wrote enough algorithms for the music typewriter so that you could automatically make the thing justify on the right hand margin and all that it was the first to do graphics

i was able to write algorithms so that you could justify the right hand margins and things would line up by inserting spaces and so on and so forth I wrote this program, to extend it and insert space and so on so you get neat printout

and i will show you some photographs of how the machine worked and show you examples of um, some of the results we got before and after before you had everything all higgledy piggledy and then afterwards, when it came out as neat score, and then i also wrote a program with this same machine to extract performance parts, and to transpose them

this was in the same period of the illiac suite which is 1958, so i wrote that at the same time since we were working with the same uh, five channel tape with the illiac computer

We can see by this short example how choices in editing can be shaped and stimulated by the medium in which the text is edited. This aurally edited interview can remain in the aural realm as a radio presentation. But it can also be used to lead us via a differ-ent route into the visual realm.

## Distillation #5: The Radio Prose Transcript

In an attempt to bring the process full circle, I next reduced my edited radio transcript to a radio prose transcript. This was done to compare a visual document edited with visual sensibilities to one edited with aural sensibilities. The final decisions for this prose permutation were governed by our old friend, typographic literacy—I simply went through and modified the above transcript to suit a visual prose reading. A side by side comparison of the two prose transcripts—the visual edit and the aural edit— reveals

texts that are similar, yet intriguingly different because of the mode in which I was working.

## Visual Edit:

Subsequent to the Illiac Suite we did some programming of score composition. In other words, how to lay out an actual score with musical notation, and I went to a fellow in Denver, Colorado, he was a composer, and he devised this thing, it was a musical typewriter and you could lay out the material. You could lay out musical score with a typewriter. It was very tedious, but I wrote enough algorithms for the music typewriter so that you could automatically make the thing justify on the right hand margin and all that. This was the very first of the music compositional tools, to lay out score. You could justify the right hand margins and things would line up by inserting spaces and so on and so forth. I wrote this program, to extend it and insert space and so on, so you get neat printout. I remember some of the results we got, before and after. Before you had everything all higgledy piggledy, and then afterwards, it came out as neat score. And then I also wrote a program with this same machine to extract performance parts, and to transpose them. This was in the same period of the Illiac Suite, which was 1958. I wrote that at the same time since we were working with the same five channel tape with the Illiac computer.

## Aural Edit:

With the Illiac—subsequent to the Illiac Suite—we did some programming of score composition, in other words how to lay out an actual score with musical notation, and I went to a fellow in Denver Colorado. He was a composer, and he devised this thing, it was a musical typewriter, and you could lay out the material—you could lay out musical score with the typewriter. It was very tedious. I wrote enough algorithms for the music typewriter so that you could automatically make the thing justify on the right hand margin. It was the first to do graphics. I wrote this program to extend it and insert space and so on so you get neat printout. And I will show you some photographs of how the machine worked and show you examples of some of the results we got, before and after- before you had everything all higgledy piggledy and then afterwards, when it came out as neat score. And then I also wrote a program with this same machine to extract performance parts, and to transpose them. This was in the same period of the Illiac Suite, which is 1958. So I wrote that at the same time, since we were working with the same five channel tape with the Illiac computer.

Comparing the two prose transcripts, one finds subtle differences in wording. Rejoinders and punctuation, as well as sentence structure, were affected by the earlier choices. In both cases, the choices were governed by an evolving aesthetic sensibility systematically applied to the different visual and aural documents. Each final product was affected by the process, in this case the process oriented more toward either aural or visual sensibilities in differ-

ent stages of editing. In the end, the resultant transcripts are true to their medium; in both cases the voice of Dr. Hiller and his story remains fully intact, which is, after all, our prime concern. But subtleties in the text do have an impact on the reader. Clearly, the editing processes we have explored had a noticeable effect, albeit subtle, on each of the final prose transcripts.

## Conclusion

As we have seen, initial choices may not be the only choices, but these choices can lead us down a specific path that may or may not yield the same results as another path. The technological issue is ever-more present in our work, and it is now not only a matter of how we use our tools, but also when we use them. The medium and its accompanying mode of perception impacts the presentation of the message, but to what degree is less certain. But even if this impact is subtle, it is nevertheless an impact. Further explorations with sound processing may even lead us to rethink the concept of orality. The issues raised here serve to remind us of the complexities and subtleties of representation, especially when that representation involves the interchange between differing modes of perception, now accentuated by the use of technology.

We have seen how the various editing dilemmas one encounters can be confronted and illustrated, ranging from mechanics of transcription, to usefulness of presentation, to issues of aural vs. visual editing. In a sense, these issues are enormously open-ended and exciting, especially the aural/visual interplay. What is the relationship between orality and sound editing? At what point do we switch from aural to visual? Can the aural document be as pliable as the visual document? How will technology further impact our results? Perhaps we are not yet prepared to answer these questions, but they suggest how choices in editing oral history can blossom differently in particular contexts. We can keep the visual visual and the oral aural, while at the same time taking clues from both forms, striking a balance for developing a wider range of choices and sensibilities in oral history editing.