

Notes on Walter Zimmermann's *Riuti: Rodungen und Wüstungen*

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<Background>

I decided to learn Walter Zimmermann's *Riuti* (1981), in December of 2008, following my master's recital, which was, at least for me, a formidable and stressful endeavor, involving many pieces that stretched my technical and artistic capabilities to their limits. At that time, *Riuti* seemed like a perfect project, given its meditative and simplistic qualities (i.e. straightforward rhythms, beautiful melodies, rather minimal instrumentation). However, after beginning the piece in earnest and conducting some research on Zimmermann, I realized that I had unwittingly stumbled onto one of the more daunting and profound pieces in the percussion repertoire. After learning *Riuti*, I decided to write about the learning process and the way that the piece transformed from a simple lullaby into an extremely rich form of poetry – full of paradoxes and metaphors – with roots far deeper than those apparent at first glance.

In order to properly appreciate *Riuti*, it is essential that the reader have a basic idea of Zimmermann's intellectual background, as well as compositional aesthetics in the context of German music around 1980.

I. <Walter Zimmermann>

A. <History and Context>

Walter Zimmermann (b. 1949) was born in Schwabach, Germany, which is in the region historically referred to as Franconia. He studied composition with Werner Heider in Nuremburg and Mauricio Kagel in Cologne, spent time at

the Institute for Sonology in Utrecht and the Jaap-Kunst Ethnology Center in Amsterdam, and later came to the United States to study computer music at Colgate University. During this time in the United States, Zimmermann documented North American folk music, with special emphasis on Native American music. Additionally, he traveled around the United States interviewing composers from the American Experimentalist tradition, the results of which he released in a collection entitled *Desert Plants: 23 Conversations with American Musicians*. After returning from the United States, he founded the Beginner's Studio in Berlin, which was amongst the first venues in Europe to present the music of the American Experimentalists.

As a composer, Zimmermann is best described as an outsider. His music is imbued with poetry, philosophy and commentary. Zimmermann's intellectual influences include thinkers as diverse as Plato, Saint Augustine, Meister Eckardt, Giordano Bruno and Noam Chomsky (all figures of historical importance with regards to memory, language and human nature.)

In the context of European music at the time when Stockhausen was Germany's dominant compositional voice, Zimmermann looked to the United States for his inspiration: he found a sense of kinship with the music of John Cage and Morton Feldman, neither of whom were yet fixtures in the European new music community. At this time, because of his influential visit to the Darmstadt Ferienkurse für Neue Musik in 1958, Cage was known in Germany primarily as a composer of *musica negativa*¹ due to the experimental and anarchic nature of his post-1951 chance music. In this context, Cage's music was seen

¹ *Musica negativa* here should be understood as a music created in opposition to the dominant European compositional identity of the 1950s. This concept can perhaps be connected to Theodor Adorno's idea of the Negative Dialectic.

as a panacea to the somewhat dogmatic nature of structuralist composers of the Darmstadt school, and as such was presented not as celebrating the beauty of accident, but as a form of political music, antithetical to Cage's aims. However, eschewing the political implications of chance music, Zimmermann became interested in Cage's works from before 1951 – his so-called "naïve period." Zimmermann became enticed by Cage's method of working with charts producing semi-automated structures which helped him to generate musical material free of his own compositional preferences.

While Zimmermann is indeed a composer obsessed with structures, it would be a mistake to group him with Serialist school of European composers such as Boulez and Stockhausen, as Zimmermann's music shares virtually no aural resemblance to these composers. Though Zimmermann's music is often rigorously composed using superimposed charts of mystical numbers, the sounding result is often very soft and delicate. The materials are very minimal, and there is a great deal of non-regular repetition in his music. Further, the pitch collections he uses are mostly simple diatonic collections. As Zimmermann explained to Richard Toop: "I tried to combine Cage and Feldman within me, so to speak: the Cage of the matrixes and chance systems, and Feldman's lyricism."²

B. <Lokale Musik>

Riuti comes as one of the final pieces in Zimmermann's epic cycle *Lokale Musik* (1970-1981). The overarching theme of this cycle seems to have stemmed from the ideas of a sympathetic group of composers who met while students in

² Richard Toop, "Shadows of Ideas: On Walter Zimmermann's Work" (Introductory lecture presented at the XVI. Weingartener Tage für Neue Musik, Weingartenm Germany, November 15, 2002.)

Cologne. In addition to Zimmermann, the members of this group were the notable composers Kevin Volans, Gerald Barry and Clarence Barlow, who were all studying with either Stockhausen or Kagel at that time. The group's commonality lay in the fact that they all felt like outsiders to the European Avant-Garde establishment. The four composers decided to go back to their respective origins (Volans in South Africa, Barry in Ireland, Barlow in India and Zimmermann in Franconia) in order to embrace their roots and incorporate elements of their respective cultures into their work. In Zimmermann's case, the culmination of this endeavor was the publication of *Lokale Musik*, a cycle that contains solo, chamber and orchestral music all based on, as Zimmermann says, "the manifold relationships between landscape and music."³ In this cycle, Zimmermann uses Franconian folk dances such as *Walzer*, *Zwiefache*, *Schottisch*, *Mazurka*, *Rheinländer*, *Galopp*, etc... as source materials, as well as forms of personal, social and historical commentaries involving this region.⁴ The resulting music acts as a sort of fusion between the "cultivated" music of concert hall and the "rough" music of the folk tradition.⁵

C. <Compositional Aesthetics>

The two pervading compositional techniques of Zimmermann's oeuvre are *non-centered tonality* and *introverted virtuosity*. The concept of non-centered tonality refers to Zimmermann's use of tonal materials without any sense of functional relationships. As Christopher Fox elucidates:

³ Wolf, Daniel, "Landmarks (21)", <http://renewablemusic.blogspot.com/2006/12/landmarks-21.html>

⁴ Ibid.

⁵ Ibid.

Zimmermann takes his pitches from generally diatonic collections, but composes with them in such a way that no one pitch predominates; by doing so, he avoids creating a time sense of harmonic rootedness. Again, matrices are employed to determine for how long a particular tonality will be used before it is replaced or overlaid by another one; in this way too no one tonality predominates. Having assured the tonal neutrality of his pitch material Zimmermann then reinforces this by introducing a comparable neutrality of metre and rhythm. Each pitch or group of pitches is given the same durational value for a certain length of time, at the end of which it is assigned a new duration.⁶

In using harmonically and rhythmically “neutral” materials, Zimmermann’s music is able to retain a sense of lyricism, while not concerning itself with harmonic function. In a sense, it is quite similar to a composer using an octatonic or whole tone scale, in that one can achieve a certain *directionless sound* or *texture* within the music, while preserving space for elements other than harmony to develop.

Perhaps the more interesting and subjective concept associated with Zimmermann’s work is that of introverted virtuosity: the idea that there exists a disconnect between what the listener perceives to be happening musically and the effort that the performer must make in order to produce this effect. In Zimmermann’s music, this means that the performer must go to considerable lengths in order to realize the demands that the composer is requesting of him,

⁶ Fox, Christopher. *Cage-Eckhart-Zimmermann*, 1986. Article published on W. Zimmermann’s website, <http://home.snafu.de/walterz/index.html>

while, ideally, the listener perceives something delicate and serene. In a sense, Zimmermann creates the inverse situation of a typical showpiece, in which the amount of effort elicited by the performer equals the complexity of the aural result. In the case of introverted virtuosity, the efforts put forth by the performer create the illusion of ease and simplicity.

II. <Description of *Riuti*:>

Riuti is composed in three distinct sections, each demarcated by a different tempo marking (92, 152, 60). The percussion setup contains three graduated drums (bass, tenor, snare), one cymbal, four almglocken (pitches unspecified) and a glockenspiel. The drums and cymbal are either struck or scraped⁷ (in various places and fashions), while the glockenspiel and almglocken function as a single meta-instrument, with each pitch from the glockenspiel played simultaneously with an almglock counterpart⁸. Additionally, Zimmermann calls for bamboo sticks, which the percussionist is to violently swing through the air in the direction of the indicated instrument, but stopping just short of striking the instrument. This “air-stroke” produces a subtle “whooshing” sound that is supposed to have a much greater visual/dramatic effect than an aural impact. The entire piece is played at a very soft dynamic.

The first section (quarter = 92) begins with a short introduction of several fragments on the drums and cymbal with long periods of silence in between.

⁷ The tenor drum is scraped both close to the rim and also directly in the center of the drum. The cymbal is scraped both from the dome to the edge, and directly on the edge of the cymbal.

⁸ In this combination, the glockenspiel is played with a hard mallet and produces a very clear pitch while the almglocken are played with a very soft stick and produce a more ambiguous pitch with a complex collection of overtones. Together, this combination produces the illusion that the glockenspiel is slightly out of tune.

However, the piece “begins” at the first entrance of the bells, at which point one hears somewhat regular drum and cymbal patterns simultaneously with slow moving melodies from the bells. Here, a sense of musical coherency is established, as one is able to identify the pulse and meter of the music (4/4 or 2/2), as well as the frame of tonality. Both the rhythmic and the melodic materials are quite simple⁹, but are often deceptive, as they are *repetitive* but not *regular*, thus giving the impression of familiarity without any form of exact repetition. When all of these sounds are combined, *Riuti* reminds one of a charming toy, as though someone paired a music box with a wind-up toy drummer.

The piece’s first major moment of intrigue comes about three minutes in, when the texture is inexplicably interrupted by the entrance of the performer’s voice, which utters the word “*reuth* (trans: a clearing in the forest).” Following this, the texture returns to its prior state, until the voice interrupts again with the words “*äcker zehnt* (trans. ten acres).” From this point on, vocal interjections become more and more frequent until the voice is fully incorporated into the texture of bells, drums and cymbal. One moment of particular absurdity comes when the percussionist whistles a short melody.

The second section (quarter = 152) begins with the recitation of the word “*Wüstungen*,” which translates to “deserted places.” From this point, the music alternates between purely instrumental phrases and instrumental phrases with vocal accompaniment. The text in this section is a collection of names of abandoned Franconian towns, such as “*Grenda*”, “*Ziegelhof*,” “*Grothsmule*”

⁹ The rhythms are based entirely on quarter and eighth notes and the melody never deviates from the pitch collection F,G,Ab,C,D and E.

and “*Prunst*”. Also, this section is in a triple meter, which, given the instrumentation of glockenspiel, drums and cymbal, very clearly evokes the sound of a waltz. The tempo of this section, especially when paired with the perpetual soft dynamic, makes extreme technical demands on the interpreter. The tumultuousness of the musical materials¹⁰ must not impede the delicateness of the music. When practicing this section, one often feels like a bull in a china shop, or an elephant masquerading as a ballerina, as the sudden muscular jerks often cause unintended harsh sounds completely antithetical to the desired texture of the piece. It is this part of the piece that best demonstrates Zimmermann’s use of introverted virtuosity; the listener should never be aware that the interpreter is at the limits of his technique.

The third section of the piece (half note = 60) returns back to a less frenetic texture, and for the first time in the piece, the musical material is for solo bells, with the drums and cymbal remaining silent. The metric structure is also more akin to the first section (quarter = 92), which can be felt either in 4/4 or 2/2. There still remain several place names that are spoken aloud with instrumental accompaniment that interrupt the solo bells (these few sections do, in fact, use the drums and cymbal.) Finally, the piece unwinds enigmatically with alternating passages for solo bells and extended sections involving “air strokes,” which are semantically loaded in terms of visual gesture, but are rather subtle and empty, aurally speaking.

¹⁰ The main challenge here is preserving the quiet dynamic and precious nature of the sounds while traversing the vast physical space from instrument to instrument, which is naturally unwieldy.

III. <The Learning Process – the Practical and the Intellectual>

A. <The Mallets>

The first important decision with which I was confronted when learning *Riuti* was what types of mallets to choose, since none are suggested by Zimmermann. The difficulty in making this decision lies in the fact that the setup itself is completely incompatible in terms of finding a single multipurpose striking implement. One must be able to produce desirable “standard” sounds on the glockenspiel, three drums and cymbal, as well as execute cymbal scrapes, drum scrapes, beautiful soft snare drum rolls, bass drum rim clicks and a haunting, unobtrusive, almost subliminal sound from the almglocken, and lastly, the air strokes. Since listeners are accustomed to hearing these sounds produced by a series of individuals (for example, in an orchestra, one person would typically play glockenspiel with brass mallets, one would play snare drum with beaded wooden sticks, one would play wood block with a soft rubber mallet, etc...) the interpreter of *Riuti* must strive to preserve the ideal nature of these sounds despite the fact that Zimmermann is asking him to play multiple parts simultaneously. This aspect of the piece is another example of introverted virtuosity; for the piece to sound calm and enchanting, the performer must spend many hours inventing solutions that idealize the sound of the instruments, but are practical for one person to realize with two hands.

Choosing mallets was like a small riddle that the performer was expected to solve. As an interpreter, I found myself cataloguing all of the special techniques I needed to have immediately available to me (i.e. scraping the cymbal, rolling on the snare drum, striking the wood of the bass drum, scraping skins, etc...) without changing mallets. The result was a surprisingly restricting

set of options, since at any given time, a percussionist is capable of comfortably holding only four implements.

The solution I reached was to use four completely heterogeneous implements, each with its strict assignment within the setup. In my left hand, I used an extremely soft timpani mallet, which was used primarily for the skins of the bass, tenor and snare drums as well as almglocken. I used the shaft of the stick on the rim of the bass drum to produce a clicking sound¹¹. Also in my left hand, I used a superball mallet, which is used only for snare drum rolls¹². I found that creating a beautiful snare drum roll by lightly dragging the superball across the head of the snare drum was a subtle art, but was a workable solution after a few minutes of practice. It must be noted that after the last rolled moment in the first section of the piece, this mallet can be discarded, and from here, the left hand holds only the soft timpani mallet. In the right hand, I used on the inside a medium hard vibraphone mallet¹³, which is used primarily for glockenspiel (which only works because the piece is played so quietly), but also helps to cover occasionally on the snare and tenor drums. Lastly, on the outside right, I used a long, thin metallic rod that I suspect was fashioned from a wire coat hanger. This implement was used almost exclusively on the cymbal, though especially in the first section, it was helpful in covering some of the scraped sounds on the snare and tenor drums¹⁴.

¹¹ It is important that the stick has some weight in the head of the mallet, while being rather thin in the shaft, because this produces the best combination of rich sounds from the drums and almglocken, while maintaining a clear, highly distinguished “click” sound from the wood of the bass drum. Perhaps a very soft mallet with a bamboo shaft would be ideal.

¹² This idea came to me at 3am while I was studying the score during an overnight delay in the Philadelphia airport.

¹³ For example Mike Balter Pro Vibe 22R Green.

¹⁴ It is very important that this metal rod is not too thick or heavy, as it is very easy for the cymbal to become the dominant voice in the piece.

For photo of mallet configuration, please see Figure I in Appendix.

This small puzzle is an exercise in compromising the “Platonic ideal” of each sound in such a way that the overall aural image of the piece remains refined. I have heard of several different solutions with regard to which mallets to use, and of course it is essential that one finds his own way of dealing with this aspect of the piece, but I would simply urge the performer to not overlook this critical element of interpretation when beginning to learn the piece. One must carefully consider which sticks to use, since this technical detail will inevitably have a large impact on the player’s final interpretation.

B. <The Sonic Vocabulary>

The second problem the piece posed was simply translating the directions given by Zimmermann into *sounds*. It is a common problem in contemporary music scores (not unique to percussion) that the composer describes an *action* in terms of *geography of an instrument*, without describing the *resulting sound desired*. In the case of *Riuti*, Zimmermann gives directions for actions such as “strike on rim” or “scrape edge of cymbal,” without any description of the type of sound that is to be produced. In each of these cases, the directions are unclear, because with different sets of mallets, these actions can produce radically different sonorities¹⁵. In the case of *Riuti*, the cymbal presents the most problems in this regard, since Zimmermann specifies six modes of producing sound on the cymbal (1. Ordinary strike, 2. Ordinary strike (accented), 3. Strike edge of cymbal, 4. Strike edge of cymbal (accented), 5. Scrape cymbal from bell to rim, 6. Scrape cymbal on edge.) Though

¹⁵ For instance, the same physical motion of scraping a cymbal from dome to edge will have highly differentiated results depending on whether the performer is using a snare drum stick, vibraphone mallet, plastic mallet, jazz brush, triangle beater or coat hanger.

Zimmermann provides a diagram of the different parts of the cymbal, the information he provides is insufficient, since what exactly is meant by “the cymbal’s edge,” for instance, is ambiguous.

Since these descriptions are guided by descriptions of vague actions (hit/scrape x in place y) instead of descriptions of desired sounds (yielding a variety of possibilities of idiomatic realization), the interpreter must use his artistic discretion in figuring out exactly how he will render these actions (given his available stick choices). Will the interpreter be able to execute these sounds consistently with adequate distinction during difficult technical passages? Will the mallet choices allow for a sense of equal balance amongst the instruments? Do the individual sounds that the performer has settled upon sound distinct yet cohesive? Determining the sonic vocabulary, since it is inherently linked to mallet choice, is perhaps a form of interpretational virtuosity (certainly another form of introverted virtuosity), because in order for the piece’s language to effectively speak, one must go to great pains to conceive a workable solution that will facilitate the execution of such a serene and intricate score.

For complete list of modes of attack, please see Figure II in Appendix.

C. <Memory as an Analytical Tool>

The most important decision that I made when working on *Riuti* was to memorize the piece, which was a choice I made on a purely practical basis. In short, there were two factors that deterred me from using music: the first was that I knew I wouldn’t be able to simultaneously read the music and play the correct pitches on the glockenspiel. Because of the technical challenge the piece posed, I knew I would need my eyes to stay locked on the keys of the

glockenspiel as a point of reference during difficult passages. The second reason to dispense with reading music was simply to avoid awkward page turns and enable my body to move freely in order to preserve the elegant atmosphere the piece creates.

After determining that memorizing the piece would be the only viable option for my interpretation, I immediately discovered that the greatest obstacle in ingraining the musical material would simply be remembering where I was in the form of the piece. Since there was no obvious logic to determining either the large or small-scale formal structure and the musical materials themselves were repetitive and directionless, it was impossible to figure out how to break the score down into digestible chunks for the memory¹⁶. After spending many fruitless hours trying to find some sort of numerical pattern or recurring motives that I could key into, I felt as though I had hit a wall in terms of finding a way into the score.

Nevertheless, I persisted in developing an interpretive relationship with the piece simply by carefully working through the score on a daily basis. In my experience, starting with the score and simply allowing my brain to absorb the information presented by the score in an objective way (i.e. not approaching the work with any sense of personal agenda or bias as to how the musical issues should be solved) allows the music to tell me something about itself that I would not be able to perceive purely through intellectual study¹⁷. I often refer

¹⁶ While many scores of contemporary music challenge the memorizing interpreter because of their fragmented and chaotic natures (as well as a lack of repetition or pattern), *Riuti* presents many problems in this regard precisely because its materials are so minimal and repetitive without being systematic.

¹⁷ In a sense, this is a form of immersion that allows my natural memory to absorb whatever it finds noteworthy about the score. In working objectively, I allow myself to “meditate” with the

to this as “the piece letting one in on its secrets,” because during the working period, the piece tells the interpreter how it should be analyzed – not the reverse. I have found that starting from the beginning with formal analysis is often unproductive, since it is possible that the interpreter may search high and low for clues and patterns that will have no practical implication in working on the piece. The value in starting the memorization process by slowly working through the score, at least for me, is that one is immediately confronted with the practical problems specific to the piece.

Although I had been making progress on *Riuti*, I felt disappointed that I had still not found a reasonable way of dividing the score into memorable chunks. Finally, my first breakthrough came following a seminar in which I presented the piece in its earliest stage of preparation. After my performance, someone commented that although the piece was charming, the interpretation seemed flat and would benefit from giving the sounds more distinct timbres and rhythmic placements. Then the suggestion came that instead of playing the sounds, I create a way to onomatopoetically “solfège” through the piece, so that a snare drum roll would be rendered as “rrrr,” a cymbal scrape would be “ffff,” a bass drum stroke would be “buh” or “duh”, a rim click would be “ka”, etc... Doing this would imbue the sounds with more meaning simply because I could think less about the mechanics of striking the right instrument and more about shaping phrases and really distinguishing the sounds from one another. In other words, I was starting to think about *the music* rather than the *process of realization*. Interestingly, after a few days of work, I began to notice that

piece so that after I reach a certain level of comfort in this respect of my practice, I can re-approach the score in an intellectual way and perceive new details that I had not noticed previously.

the system of solfège that I had created closely resembled several of the words that one orates throughout the score.

D. <Cracking the Code>

After more than a month of slow work on the piece, I decided to take a break from working with the instruments and I returned to score study to see if there was anything I was able to discern that I wasn't able to see one month earlier. It was at this juncture that I realized that *Riuti* was much deeper than the simplistic lullaby I had once thought it to be. Ever since the suggestion that I create a solfège version of *Riuti*, I had been thinking about the way that the voice was eventually integrated in the piece. The first thing that I noticed was that there was an obvious correlation between the snare drum roll and the sound that mimicked it, which was the rolled "r." Similarly, I had been noticing that in words like "äcker," the "k" sound was always paired with the clicking sound on the rim of the bass drum. Soon, it became obvious that there was a consistent system in place in which all of the vowels were paired with bell/almglocken combinations, and the consonants were all paired with either a drum or a cymbal sound. Further, though this was seemingly more arbitrary in the vowels¹⁸, Zimmermann had created a system of onomatopoeia with the consonant sounds so that plosives like "k" and "g" were paired with clicking sounds, while fricatives like "f", "v" and "s" were paired with scraped sounds. For the consonant sounds, Zimmermann uses the drums and cymbal much in the way that Indian tabla players, or Middle Eastern tombek players are able to

¹⁸ Regarding the vowel sounds, Zimmermann explains: "The vowels are derived from Helmholtz who said, that the recognition of a vowel is characterized by two formants, which I translated in pitches. (I am sure this theory is not valid anymore, but I liked the old fashioned simplicity of Helmholtz.)" Walter Zimmermann, e-mail message to the author, March 3, 2009.

represent the type of sound they are producing on their instrument with their voice.

After spending a good deal of time cataloguing these phoneme/sound relationships throughout the spoken parts of the piece, I realized that I had reconstructed an entire alphabet of sounds (For the sound conversion chart, please see Figure III in Appendix.) I was extraordinarily excited about this discovery and showed my ever-tolerant-for-percussion-talk girlfriend Alice what I had found. After some discussion, we decided that it would be a good idea to apply this information to the instrumental sections of the piece that didn't include text. To our astonishment, we found that we were able to slowly construct recognizable words and sometimes even coherent phrases in the first section, which were variations on the words "Reuth," "Äcker Zehnt," and "Stocken." We continued on to the second section of the piece and found something even more incredible, as the instrumental phrases were simply transcriptions of ascending four-digit numbers (i.e. "Tausend Sechs und Fünfzig (1,056), Zwölf Neun und Achtzig (1,289), etc...). Interestingly, the instrumental parts in the third section had no encoded words, which was due to the fact that the music was composed entirely of bell sounds, meaning that the sounds converted into a text comprised only of vowels. Moreover, I found it also curious that in the silent sections that utilized the "air strokes," although all the instruments were used as targets (thereby using both consonants and vowels), it was impossible to decode any text, as there was no mode of attack given, meaning that it was impossible to discern whether the sound would translate to a fricative or plosive.

The reason that this information was so exciting was that it gave me a point of entry into the process of memorizing the piece. Since the whole piece was more or less a collection of words, it was clear that if I simply learned to “speak the language” with the instruments, I would only need to remember rhythms and words. After determining that this would be my method of memorizing, I started by transcribing all of the rhythms of the piece onto one page and then simply writing the corresponding letters under each note. Somehow, condensing twelve pages of notation onto just one was rather therapeutic, and made the task of memorization seem much more achievable. Further, in doing this, I was able to see a large-scale form start to develop, with several clearly defined sections, delineated by key words. From this point, converting the information I had discerned through the process of translation into information that I was able to recall from memory was simply a matter of repetition, similar to the way one uses flashcards. I found that being able to attach coherent meaning to the musical material (i.e. phrases such as “*Groß Reuth, Klein Reut* (large clearing, small clearing)”) allowed for easily digestible memory chunks to develop, and made the process of memorization infinitely easier than if I had tried to memorize the piece note by note.¹⁹

¹⁹ The issue here has its historic roots in the debate between the superiority of memory for things (*memoria res*) or memory for words (*memoria verba*). The debate was whether when memorizing a passage (typically for public speaking) to commit each word to memory or simply to remember the key topics or points. Although the issue is still debatable, it was generally held that the memory for words was much more difficult than the memory for things, largely due to the fact that memory for words was superfluous, given the many parts of a sentence construction that we are able to construct instantaneously simply because we are fluent speakers of a language. If we can simply remember the key concepts, we are much less likely to commit memory error than if we are recalling each exact word from our memory bank as we speak it. In other words, reduced units of mentally processed material are easier to recall than a linear succession of unrelated words.

IV. <Formal Analysis: How is this Information Meaningful?>

While many methods of musical memory can simply be forms of (albeit impressive) mental gymnastics, what I appreciated so much about my time spent analyzing and memorizing *Riuti* was that the analysis affected not only my ability to ingrain small chunks of information into my short-term memory, but also my understanding of the piece as a whole. After I converted all of the sounds in the piece into language, I emailed several percussionists who I knew had played the piece and asked them if they had ever noticed the piece's "secret code." In the responses I received, the general consensus was that nobody knew about the principle of sound conversion in the piece, but everyone was interested in what I had found. I then looked up Walter Zimmermann's email address and sent him a message about my research. I think he was surprised that someone had invested so much energy in such a seemingly simple percussion solo composed nearly three decades ago. I was thrilled when Zimmermann responded to my query with an explanation about what the piece was "about" to him. However, the real surprise came when he sent me photos from his hand-written notebooks from ca. 1980 that showed his pre-compositional materials for the piece. It was wonderful to see nearly an exact replica of what I had discerned through my research (i.e. sound conversion chart and list of "*Flurnamen*"²⁰, which are words with the root of "*Reuth*," used for making acres of land distinguishable to various owners during the time that Franconia was first being settled.) in the handwriting of someone who, at that time, was only a few years older than me.

²⁰ According to Zimmermann, *Flurnamen* are "names for acres, describing the shape, the geographic situation, or the [settling] activity, etc." Walter Zimmermann, e-mail message to the author, March 3, 2009.

Ultimately, this elucidation of the large-scale form and subtext was the truly exciting discovery from my research. In other words, it made this abstract, directionless lullaby suddenly make complete sense. Throughout my learning process with *Riuti*, I had an underlying concern about the “air strokes”. I didn’t understand how they fit into the piece, and I was very concerned about how to present these short, violent, even awkward gestures. At one point, I was convinced that the only solution would be to have a foot pedal that would make the lights go black every time I had to make one of these vulgar motions. However, through Zimmermann’s notebook, I found the following explanation of the form: “Natur → Rodungen → Kultur → Wüstungen → Natur, (Nature → Settling Land → Culture → Abandonment of Settled Places → Nature).” To me, this revealed that the piece was “about” the relationship of man confronting nature, creating civilization, exploiting the natural resources of the region and then deserting these places, which gradually return to a natural – but altered – state. So, in effect the piece is book-ended with nature, the first being pure and the second retaining the imprint of human civilization. Zimmermann wrote me the following explanation: “Since the piece is about human conquering of nature there is obviously destructiveness involved, especially when on the end the sound of the air sounds evolve as nihilistic.”²¹ At last, I had an explanation! The air sounds were indeed *supposed* to interrupt the placid material surrounding them.²² In fact, one could even say that this gesture is the defining characteristic of the piece.

²¹ Walter Zimmermann, e-mail message to the author, March 3, 2009.

²² The motion and intensity used to produce these air sounds are analogous to the chopping of wood; an act that is both necessary for human civilization and destructive to its habitat.

V. <Conclusion>

Lastly, everything that I have gleaned from my personal experience and research on *Riuti* has led to me to find a yet deeper subtext regarding the relationship of language and culture and the impact these have on our planet. In this piece, Zimmermann uses language entering and disappearing from a musical “nature” as a metaphor for civilization’s ephemeral state – settlers come and go – yet lasting consequence (exhaustion of natural resources and disruption of the natural order.)

Appendix

Jonathan Hepfer, Notes on Walter Zimmermann's *Riuti: Rodungen und Wüstungen*

Figure I. Mallet Configuration

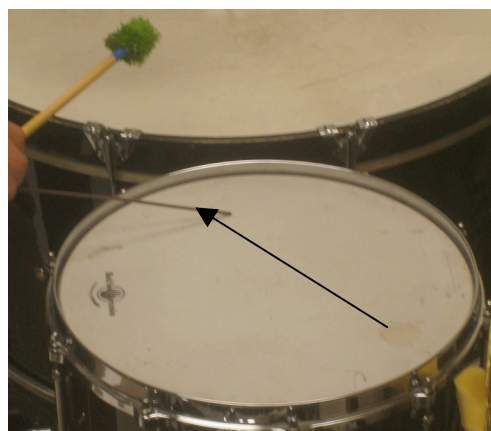


Figure II. Special Modes of Attack

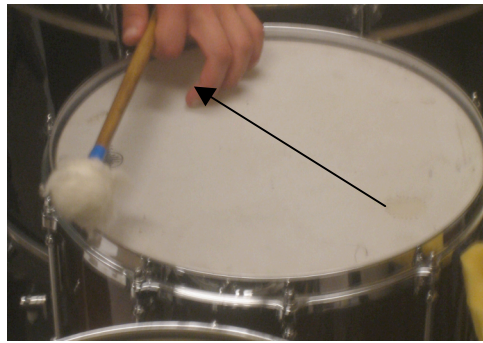
a. set-up (for reference)



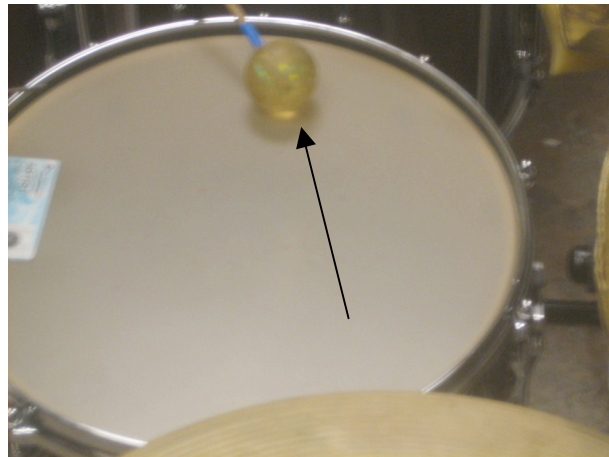
b. Scraping with metal rod on tenor drum



c. Scraping with fingernails on tenor drum



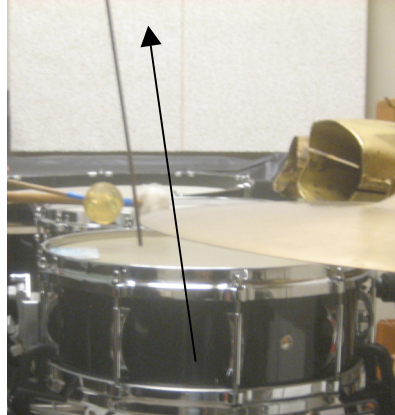
d. Dragging superball - "roll" effect - on snare drum



e. Scraping metal rod on cymbal - "dome to edge"



f. Scraping edge of cymbal with metal rod "arco style"



g. Rim click on bass drum



h. Standard playing position for glockenspiel/almglocken dyads

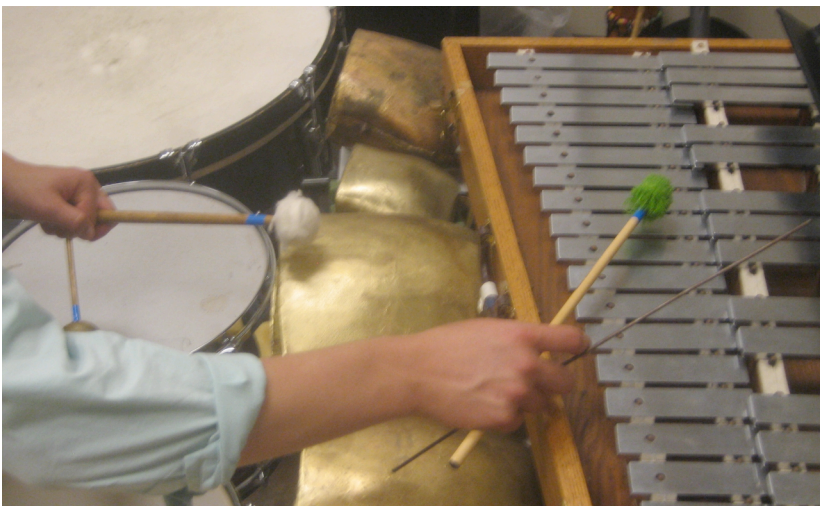


Figure III. Sound Conversion Chart / Word Catalogue

<Consonants:>	
<u>Bass Drum:</u>	
Edge (no accent)	- "d"
Edge (with accent)	- "t"
Center (no accent)	- "p"
Center (with accent)	- "b"
Rim (no accent)	- "g"
Rim (with accent)	- "k" or "ck"
<u>Tenor Drum:</u>	
Edge (struck)	- "n"
Middle (struck)	- "m"
Edge (friction)	- "w"
Middle (friction)	- "v"
<u>Snare Drum:</u>	
Ordinary strike/roll	- "r"
Friction	- "f" or occasionally "s" or "h"
<u>Cymbal:</u>	
Ordinary (struck, with accent)	- "s"
Ordinary (struck, no accent)	- "s" or "f"
Edge (struck, with accent)	- "z"
Ordinary (friction: center to edge)	- "f"
Edge (friction):	"s", "h", "f", "v" or "sch"
<Vowels:>	
<u>Bells: (pitch on glockenspiel / almglocken I-IV)</u>	
D (low) / IV	- "a"
C (high) / II-	"e" or "eh"
D (high) / I	- "i" or "y" or "ie"
G (low) / II	- "o"
F (low) / I	- "u"
Ab / IV	- "ä"
G (high) / I	- "ü"
E / III	- "ö"

Word Catalogue/Translations

This catalogue is the translation of the words I found encoded in the text of *Riuti*, as well as my best guess as to what the word means in English. Since the words come from an archaic form of German, and there are many words that are repeated or only slightly varied, I did not venture to translate them.

* Numbers in brackets refer to reference numbers listed in the score.

Riuti - ?

Rodungen - Clearings, Uprootings

Wüstungen - Deserted Medieval Towns; Deserted Sites

Lokale Musik - Local Music

Drei Stille Tänze - Three Silent Dances

<1>

Ia. Consonants only (no words) (Quarter = 92)

Ib. Modes of creating civilization ("*Flurnamen*") (Quarter = still 92)

<2>

Auf der Reut - potentially an address?

Reut - ?

Die Neue Reut - the new forest clearing

Reuthes

Reutel

GRABENreut - n. a ditch or a trench, v. to dig, to burrow

FILDTreute - perhaps "feld = a field"?

GERTENreut - perhaps "garten = a backyard" ?

Äcke(reut) - acres

Äcker Zehnt - ten acres

<3>

Reut

Zehntereut - ten forest clearings

Zehntheim - ten homes

<4>

Großreut – the large forest clearing
Kleinreut – the small forest clearing
Kreuthes – potentially “kreuz = to cross, a cross, perhaps even ‘a dagger’?”
Kreu(TÖTEN)reut – to kill
Poppenreut – (VULGAR)
Rem...rrrrr...
Reut

<5>

Neugereut – perhaps also “a new forest clearing”
Äcker
NeuGRÜßE(neugruß)zehnt – “Grüße = Greeting”
Reutzehnthelm
Reutzehnter
Reutäckerzehnt

<6>

Stockes
Stocken – n. a solidification, v. to cease, or to halt
Stöcken – potentially “Stücken = v. to divide up in to pieces”
Stöckeus
Stöckieheim
Stocken
WHISTLE
Auf den Stöcken
StöckelWIESEN – a type of grass or weed
Stockheim

Place Names and Four Digit Numbers (Quarter Note = 152)

<7>

Wüstungen
Tausend Sechs und Fünfzig – 1,065
Grenda

<8>

Zwolf Neun und Siebzig – 1,279
Grothsmule
Zwölf Sechs und Achtzig – 1,286

Huslin

<9>

Dreizehn Vier und Zwanzig – 1,324

Schurberg

Dreizehn Fünf und Fünfzig – 1,355

Gazenaaurach

Dreizehn Sechs und Siebzig – 1,376

Kempnotten

Dreizehn Sechs und Neu(n)zig – 1,396

Prunst

<10>

Vierzehn Ein und Vierzig – 1,441

Ziegelhof

<11>

Fünfzehn Vier – 1,504

Gollhof

Ley

Hagenmühle

Fünfzehn Fünf und Dreizehn – 1,535

Kastenburg

Fünfzehn Vierzig – 1,540

Goibershof

Fünfzehn Sieben und Vierzig – 1,547

Siegelsmühle

Burkstal

Deconstruction of Coherent Language (Half note = 60)

<12>

Vowels only (no words)

Flintschhof

Langenaw

Vowels...

Holzlhof

<13>

Vowels only (no words)

Fallhaus (empty)

dissolution of language (either vowels only, or airstrokes, which do not give enough information to parse together words.)

Additional References: Walter Zimmermann's Notebooks

	Rodungen & Wüstungen Für 2 Personen	
UL	r: S.C. (Schwarze) schlagen	
TR	L: S.C.	reiben
TL	m: S.C. (ohne Sch.)	schlagen am Rand
TR	n: " "	schlagen in der Mitte
DE	w: " "	reiben am Rand
	v: " "	reiben in der Mitte
	f: x reiben zw. Rand & Kuppe (ord.)	
	s: x schlagen " " " (ord.)	
DK	z: c " "	auf Rand =
	sch: z " "	zw. Rand & Kuppe >
	ch: c reiben auf Rand	>
	k: c " " " (ord.)	
	b: f Meißel des Fells (ord.)	
	p: f " " " >	
qf	d: y Rand des Fells (ord.)	
tr	t: c " " " >	
	g: x Falge (ord.)	
	k: b " " >	
	2 Weiden nur zur Darstellung der Viere	
	(6 Fragmente + Lied. kpfen)	

[d''' c''' as'' g'']

i e ä ö a u
 f''' d''' k''' a''' g''' d''' h''' g''' f'''
 b f' c' b f' g' f' b

Konsonanten:

1) SONORLAUTE [r & l]

2) GERÄUSCHLAUTE

Frikative: [f s] [ʃ x h]

Plosive a) totaler abrupter Verschluss

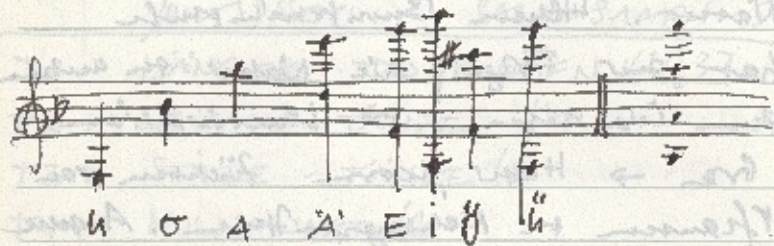
b) Erhöhung des Drucks im
abgeschlossenen Luftraum

c) Sprungung des Verschlusses

[p t k k' g. k'']

Affrikate: [pf, ts, tʃ, kx, vx, dx...]

HEIMHÖRER: Eine Übersicht dieser Begriffe der Skala, wo die Ovation der einzelnen Vokale besonders stark zum Ausdruck kommen, folgt hier in Notenschrift:



			F1	F2	
2	i	h	250	a''' 2500	
	e	e'	350	c''' 2200	
	ä	f''	720	as''' 1700	h g'''
3520	ö	h'	500	e''' 1450	h 250 1600
1760	a''	a	f'' 720	d''' 1300	
880	a'	o	c' 350	g'' 750	
-440	a'	u	h 250	f'' 700	720 - f''
220	a				500 - h'
110					350 - e'
					250 - h

Postlude:



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