

2011

# Musical eating and culinary listening: Composing with sounds and flavors

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## Recommended Citation

Brockshus, Isaac, "Musical eating and culinary listening: Composing with sounds and flavors" (2011). *Honors Program Theses*. 38.  
<https://scholarworks.uni.edu/hpt/38>

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MUSICAL EATING AND CULINARY LISTENING:  
COMPOSING WITH SOUNDS AND FLAVORS

A Project Submitted  
in Partial Fulfillment  
of the Requirements for the Designation  
University Honors with Distinction

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May 2011

My interests in music are wide-ranging. While the majority of my energies as a student are invested in the mastery of music that is more or less conventional, I also find myself obsessing over ideas intended to clear new avenues of expression while establishing new perspectives on the familiar. My experimental side thrives in a vast playground of extant musical constructs, free to be exploded, reassembled, and re-examined. Within these constructs come certain audience expectations for the music. The presence of these expectations and the practical issues resulting from a clash of expectations served as instigators of creative thought throughout my thesis project.

The project to which I am referring is an exploration of a basic question that has shattered into a myriad of further questions: what do the perceptions of eating and listening have in common? This initial spark of an idea caused me to ponder more. Can I find a way to pair musical textures with edible textures? If so, can I then use music to portray the sensation of taste? What if I incorporated flavors and sound into a composition where both sensations are viewed to be equally important? Can all of these devices be used in a way that an audience can understand?

These questions stemmed from some of my quirky habits at the dinner table. My friends can attest to outlandish food combinations of mine such as frozen strawberry yogurt-meatball spaghetti and salsa-French toast-potato salad, both of which I find to be delightfully dissonant taste experiences. Equally memorable aggregates of mine include “chocolate grapemilk” (four parts chocolate milk, one part grape juice) and “The Atrocity” (peanut butter, turkey, honey and grapes on top of toast), interesting in the fact that so many independent elements are pitted against one another. My restless, collage-like approach to the act of eating is concerned with working with familiar flavors and

textures in new ways. I discovered through these contemplations that the way that I compose a plate of food shares many similarities with the way I might orchestrate a musical passage.

Through this epiphany, I saw what might be an opportunity to pair gustatory information with auditory information. This parallelism could be achieved through exploiting the elements that these sensations share in common. The musical concepts of attack, sustain, dissonance/consonance, texture, register, and timbre could feasibly describe elements of taste too. Also, the balance between the different elements that an artful eater will seek is similar to the balance that a composer seeks between instruments. Combining the gustatory and auditory experiences in a thoughtful manner had the potential to enhance both experiences.

What arose from this train of thought eventually flowered into a full performance of a musical work before an audience who ate as they listened. I will describe the final result in fuller detail in later on, but what is important to note is that I established three main goals for this endeavor, and all compositional and event-planning decisions were made in service to these goals. They are as follows:

- Successfully bring an experimental idea from its genesis to culmination in a performance.
- Diversify my abilities as composer by presenting myself with a unique cognitive challenge.
- Develop my skills as event organizer by designing an event with no obvious precedent to which to refer.

- Instill greater audience attention to and appreciation of the finer details offered by both sounds and flavors while still keeping the final product accessible.<sup>1</sup>

These goals guided the development of my project through its many phases. The first step was to break both sound and taste into identifiable and workable elements and determine what elements and concepts carry from one medium to the next. My musical training has taught me to identify the following characteristics that allow us to distinguish one sound from another: pitch, timbre (tone color), attack, rate of decay, volume, degree of vibrato, etc. When notes are grouped together, still more characteristics can be identified: rhythm, harmony, dynamics, tempo, meter, and melody. I applied such categorical thinking to what I perceive when I taste a food and found that some of these characteristics translated easily while others did not.

Of the associations that I constructed, some were more subjective than others. Exact pitch of each flavor was never evident, but, in my experience, flavors seem to project a vague sense of register (or how “high” or “low” a sound is perceived to be). For example, dark chocolate suggested a low sound while lemon juice was easily in the piccolo range.

Some of the information broadcast over the lifespan of a flavor can be viewed more objectively. Such information would include the “attack” of the flavor (in other words, the immediacy with which the flavor is detected), volume, and rate of decay. In this way, a sound and a flavor can coincide in the way that the information comes, stays

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<sup>1</sup> I should note here that my goal was not to train audience members to be able to “hear” music every time they eat (or vice versa). I have worked on this project for four months, and I still lack the ability to spontaneously generate music in my head that matches the food that I am eating. What I have learned, however, is how to pay closer attention to the different components that comprise taste and form a musical example that closely follows the same mentalization.

and leaves. Still, complete objectivity is impossible because of the variance between personal experiences. Simply, the rate of decay for each eater would depend on how well their sensory receptors (taste buds) work.

Some categories of musical sound do not have an apparent gustatory equivalent. What these categories share in common is that they depend on the presence of more than one note, or module of sound, that can then be grouped together. These categories include rhythm, pulse, meter, and melody (which is comprised of rhythm and pitch). The reason these features do not translate so well is because flavor is a continuous stream of information that (in my mind) is not so easily grouped into notes or rhythmic units.

My initial response to these difficulties was that I would write a piece that has no melody, meter or pulse. This was a perfectly legitimate approach because great music can still exist that does not include those elements. In fact, one of the flavors depicted in my piece – Parmesan cheese – took this approach. However, as the piece began to take shape, some compromises permitted me to include these elements and yet remain faithful to the characterization of the flavor. While I never got a sense of a pulse when I ate (unless I happened to bite my tongue), I could still ascribe a tempo based on the assertiveness of the flavor. In constructing melodies, I paid attention to the more vague suggestions of contour of flavor (movement of pitch over time).

As I developed a sense of what categories translated well, I initiated the process of journaling each food item that I consumed, brainstorming what kind of music could be appropriated to accompany each flavor. My first step in ascribing music would be to determine if what I tasted could be broken down further. For example, lasagna is a compilation of more basic food items (cheese, noodles, etc.) that should be examined

individually. Because flavors hold a powerful influence over one another, I had to keep my process simple by observing only one indivisible flavor at a time.

My journaling was guided by a series of questions I had written on a 4 x 6 notecard. Answering questions such as “is the flavor simple or complex?” and “is the sound focused or broad?” directed my choices of instruments and harmony of each flavor. Through the lens of the latter question, I was able to determine whether a flavor would be fitting of a trumpet (directed sound) or a clarinet (whose sound is not as terse as a trumpet’s). Most times, more than one instrument was required to portray even a simple flavor.

Harmony presents one of the most intriguing relationships between food and music. I constructed harmony based on observations of consonance and dissonance in the flavor. Sour or spicy flavors seem to suggest conflict (dissonance). I would take note of this and of whether the flavor was able to find sweet resolution or simply fade away in a state of sustained discord. Many flavors were consonant from the beginning. Such consonance can be depicted most simply by stable major or minor triads while dissonant flavors call for use of more unstable diminished or augmented sounds and intervals such as seconds and sevenths.

When I had amassed a substantial list of food items and sketches of a musical depiction of each, I worked to determine the menu of items on which I would base the sounds. I set the foods before setting the instrumentation of the piece because my palette of available foods is more limited than the vast sonic possibilities of a live music ensemble. More logistics are involved with getting enough food and the right food than in procuring the right sounds from a group of nine musicians.

By this stage in my process, it was mid-February and my April performance date was fast approaching, which necessitated that I settle on an instrumentation before I could finalize which foods I would use in order that I may secure performers. I sought some of the most creative and open-minded musicians in the School of Music, people who want to further explore the potential of music and of their instrument. The final group consisted of nine musicians who easily fit my stipulations. The performers were as follows:

Betsy Groat, concert flute

Abigail Coffey, alto flute

Amy Lentz, clarinet and bass clarinet

Joe Keefe, bassoon

Emily Miller-Todd, violin

Joyce Payer, viola

Brooke Peters, contrabass

Logan Vander Wiel, muted trumpet

Cory Healey, assorted percussion

I owe the success of the opening performances to these dedicated musicians. I trusted their insight and incorporated many of their suggestions into the final piece.

The menu was never truly finalized until I had completed the rough draft of the piece, which I entitled *Three Odysseys for Instruments and Food*. The final menu is somewhat off-kilter: cottage cheese, lemon juice, sunflower kernels, black olives, Parmesan cheese (block form), Parmesan garlic bread (baked with black olives), dark chocolate and coconut. The eight food items were grouped into three parts (or odysseys)



and were chosen primarily for their ability to inspire (comparatively) strong musical images in my mind.

Concurrent with my compositional efforts, I had to begin working months in advance planning the event itself. I booked the Lampost Theatre on Seerley Boulevard in Cedar Falls for a date in April. The space was enticing because of the many dinner theatre shows the venue hosts each year and the kitchen that was available for my use. I arranged three rehearsals with my musicians, including one technical rehearsal in the space itself. I enlisted the help of other students to fulfill the roles of food servers.

Easily one of the most challenging aspects of this entire project was figuring out how to get the audience to fulfill a crucial role while they are still unfamiliar with the piece. Setting up, then subverting, expectations can be a great compositional tool, but when an audience is so actively involved, upsetting their expectations can lead to disaster. There are many expectations that come with meals, and an entirely different set of expectations rule a musical performance. Take, for example, how food invariably invites conversation, and while it's perfectly acceptable to converse during meals, the expected behavior at concerts is the opposite. Any lack of foresight in the matter could disrupt the music, causing the entire presentation to dissolve into confusion.

Even more difficulties arise once considering that the piece only makes sense when the audience eats certain foods at more or less exact moments. The most critical issue was how I would manage to conduct the ensemble while letting the audience know what to eat and when to eat. The effectiveness of the piece relies on the audience consuming foods at key moments that coincide with what is happening in the music. How would I give them cues distinct from the many more cues I was giving the musicians?

My solution was to enlist the help of a “chief audience member” who led the participants through the piece while I was free to concentrate on the needs of the musicians.

After months of preparation that included cataloguing flavors, composing, arranging rehearsals for a group of nine very busy music majors, and navigating unique logistical problems involved with such a multi-faceted event as this, my presentation came to a successful culmination on Wednesday April 6. Fifty were in attendance – an appropriate amount considering I had prepared food for sixty and was losing sleep over the dreaded possibility of an overcapacity crowd (and therefore hungry patrons). Those who came were given programs with the following information:

- |             |   |
|-------------|---|
| Part One-   | 1. Cottage Cheese (sample four times)                                       |
|             | 2. Cottage Cheese w/ Lemon Juice (sample two times)                         |
|             | 3. Cottage Cheese, Lemon Juice and Sunflower Kernels<br>(sample five times) |
|             | *cleanse palate*  |
| Part Two-   | 4. Black Olives (sample three times)  |
|             | *cleanse palate*  |
|             | 5. Parmesan Cheese (sample as needed to keep flavor in<br>mouth)            |
|             | 6. Parmesan Garlic Bread w/ Black Olives (sample four<br>times)             |
|             | *cleanse palate*  |
| Part Three- | 7. Dark Chocolate (sample four times)                                       |
|             | 8. Coconut Balls (sample four times)  |

\*cleanse palate\*

Each of the food items was given a number. These numbers helped to clarify the instructions for the audience, who had to follow cues throughout the piece. Before I even spoke to the audience, Cassie Naaktgeboren, a vocal major and Master of Ceremonies of the night, welcomed the audience and educated them on what to expect during the piece as well as what was expected of them (cell phones on silent, no speaking during the performance). The audience would not yet receive their food until after the opening instructions because one of the primary instructions was to withhold eating until cued to do so. I chose to bring in Cassie as MC because her stage presence and warm demeanor would help ease the audience into this unfamiliar situation. I also had confidence that she could communicate expectations to the audience without coming across as condescending.

The audience was then introduced to Kate Elahi, who sat at a tall table to the immediate right of the performers. She was the solution to the problem that had plagued me before about cueing the audience. Throughout the piece, she would cue the audience by eating the correct foods at the proper times. Before she sampled an item, she would hold it above her head and look at the audience. Then at my cue, she would consume the item, and the audience would follow. To enforce the cues and help those with poor eyesight, Kate stood up two binders with signs that displayed the item number and name in large font which she would flip before sampling a new item. This setup worked well enough to keep the piece from derailing.

Once Cassie had finished giving instructions, and the process had been demystified for the audience, I took the stage and led the audience through a

demonstration. Sample sizes of sourdough bread were passed out to the audience. As they sampled the bread, I posed some questions to them similar to the questions I had written for myself in my journal: “is the flavor consonant or dissonant?” “Does it go anywhere or does it stay in one place?” “Would you give this flavor a high sound, a low sound or somewhere in the middle?” These questions began to introduce to them the frame of mind that I used to make connections between flavor and sound. Once the sourdough bread was consumed and the demonstration was over, servers brought out the food for *Three Odysseys* in sample size cups and plates. Once all the food had been served, the ensemble had tuned, and the chief audience member was at attention with her spoon ready, the performance could begin.

The first odyssey begins with cottage cheese. The concert flute plays glistening arpeggiated figures over sustained low tones in the alto flute. The pace is unhurried, and the tonality is bright. Mimicking the way the flavor leaves the mouth, the music finds itself eventually reduced to a single held D until the next bite. With each sampling of cottage cheese, this progression from activity to stability is seen in the music, but this progression becomes more reserved and slower. The flavor now begins to achieve such familiarity in the mouth that it lacks the initial impact it once possessed.

Each part (or odyssey) was intended to convey a short journey or progression. With the introduction of lemon juice squeezed on to the cottage cheese, suddenly not only do the flutes reawaken their activity with renewed vigor but their duet shoots up an octave and sharps are added to create an even, bright Lydian tonality. A triangle is struck to add even more punch to coincide with the sourness of the lemon. In comparison to the

staying power of cottage cheese, the lemon juice flavor becomes subdued rather quickly and the cottage cheese settles once again in its initial tonality and register.

As demonstrated in that brief description of the first odyssey, the final form of the piece really focused keeping the concept simple. The sounds that are being played are supposed to match the flavors' activity in the mouth in almost real time. The initial title of my thesis proposal ("Polytonal Gastronomy: Seeking my Own *Gesamtkunstwerk*"<sup>2</sup>) no longer seemed to fit. As the focus of the project had shifted, the original title was scrapped and, after several other naming attempts, I settled with "Musical Eating and Culinary Listening: Composing with Sounds and Flavors" as the final title.

As the names shifted, the nature of the piece itself underwent some drastic changes. A four piece suite became three before I decided on just one. I had to keep my ambitions in check because while one can listen to music for an extended amount of time without experiencing any physical aggravation, one can only eat for so long. Each piece was to take a different approach on the greater concept of incorporating flavor into a musical work.

Some of the ideas that I had generated for these unwritten pieces can be further developed in many different directions. The initial subtitle for this project ("...Seeking my Own *Gesamtkunstwerk*") may in the end prove to be accurate should I ever refine my cooking abilities to the point that the recipes included with the score are entirely mine. In fact, including recipes in the score at all would be a major step in refining this idea, allowing me greater control of what the audience will experience. Considering how

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<sup>2</sup> *Gesamtkunstwerk* is a German word translated to mean "total work of art". It was a term used by Romantic composer Richard Wagner to describe his operas in which he had complete artistic control over every detail from the music to the design of the costumes to the design of the theatre.

detailed the score is, going into such detail on how to reproduce the food would be appropriate.

The audience displayed an encouraging response to the piece. The fact that the audience was able to understand and follow the concepts with which I was working gave me assurance that I wasn't just fooling myself. While most people probably depended greatly upon the background information I gave about each pairing (similar to the way I described the piece earlier in this paper), at least one trained musician in the audience took extensive notes during the piece that demonstrated that he was able to correctly identify my rationale for each pairing before I even revealed such things to the audience.

Such a positive response has invigorated my creative musings on this subject even further. One downside of *Three Odysseys* was the almost suffocating degree of restrictions placed on the audience about when and what they could eat. A piece whose only stipulation for the audience is the order in which they introduce menu items into their meal could allow more audience freedom or even improvisation. Such a piece could focus more on the dramatic shape of the form, climaxing at the point with the most food and most sound. Another interesting direction would be a set of pieces incorporating smell, a more refined version of the "transcribing flavors" idea of *Three Odysseys*. Perhaps a piece with only cheese could achieve a subtlety *Three Odyssey* can't match. The possibility also exists for a piece whose focus could be identifying the *character* of each flavor rather than on creating an exact depiction of the *sensation* itself.

Take into consideration the different forms the event itself can take, and the possibilities unfold even further. I can't say at this time whether this venture could ever turn a profit; regardless, partnering with a restaurant could unlock some new possibilities.

(As far Cedar Falls restaurants go, I am envisioning Montage or possibly MyVerona). Some clear advantages of this move would include access to already complete (and delicious) dishes that the restaurant offers with little variance from night to night. Also, upscale restaurants such as these might employ a chef who could offer some helpful insight on the culinary side of things. All the same, there are some disadvantages to holding a performance in a restaurant. Going back to what I wrote in the first few paragraphs, the expectations for etiquette in at a restaurant are much different than those of a performing venue like the Lampost. The audience may be more inclined to talk among themselves and be less attentive to the music. Hosting “Musical Eating...” in a restaurant would require the audience to have to invest money into the event, and when they compare the demanding “musical eating” experience to the comparably priced experience of eating and conversing at their own tempo, patrons may be disappointed. As a way of compensating for these potential downsides, the event could include less lecturing and more socializing.

Smaller events with fewer attendees and more discussion could be even more useful in advancing the ideas in “Musical eating...” The more manageable size of the event and thus grocery volume required could allow for more sampling and more talking between the consumption of samples. In this instance, *more* time would be given to the inner workings of the piece. A series of questions would be posed to the participants. These small events could be in the form of informal conversations or more structured colloquiums.

The whole process was of great value to me as a composer. I have long devised intricate and outlandish ideas for composition, but never had I carried out such an

experimental idea to a performance much less an entire evening program centered on that piece. What is more, “Musical Eating and Culinary Listening” was (as far as I know) a completely original undertaking. While the resulting composition is, musically speaking, not as effective as other works that I have produced this semester, the result has demonstrated the power to captivate. Much improvement can be made in future iterations of this concept, but what is most important is that the door has been opened to many possibilities. In terms of the goals I had set for myself, this project was a complete success. Whether or not I choose to develop this idea or one of its offshoots, the endeavor was crucial to my larger mission to be an explorer of the musical unknown.