

melitzah: An Utterance

Risa Horowitz
artist, curator

horowitz@mts.net

ABSTRACT

This paper describes the production of my artwork, **melitzah**, contextualizing the work within semiotics and the use of computers in creating interactive art. This paper has been made for inclusion in the publication of the proceedings of the COSIGN 2003 3rd Annual Conference on Computational Semiotics for Gaming and New Media.

Keywords

art, interactive art, conceptual art, text-based art, melitzah, semiotics, language, interpersonal communication, interpretation, comprehension, lexicography, dictionary, waveform, utterance.

1. INTRODUCTION

I just finished watching the Canadian Broadcasting Corporation's documentary on the World Scrabble Championships, and am completely impressed by the specific skills Scrabble experts have. These experts aren't linguists who are engaged with the use of language as such. Rather, they are obsessive memorizers, pattern recognizers, and are often mathematicians or computer programmers.

The reason I never became a Scrabble champ, even though it is my favourite game, is because I simply don't have those skills. My habit of using the computer to create and manage systems of storage, organization and recall is altogether different. This is a form of dependence, not self-sufficiency, in the same way that my dyslexic friend relies more on his memory than his notebook. Ordinary use of words may fall somewhere in the middle, perhaps: most folks depend on a combination of their memories and on the dictionary when memory or experience fails.

My interest in words stems from a very personal relationship with words and communication. I have always loved words: my earliest memories are of breakfasts with my father, who took great pleasure in hearing me read the daily paper to him. On the other hand, I have always experienced frustration with words: I have glitches, I talk too much, I mix-up words, I lose or cannot find them, and when this happens I find myself enacting a sort of aphasia, describing the function or appearance of the object to which the lost word refers. Example: can you turn the volume up on this, umm, voice amplification machine?

We are familiar with the impossibility of perfect communication, though it is the fantasy of becoming the most efficient communicator I can that has led me to create **melitzah**.

2. WHAT IS MELITZAH

My art practice seems to be grounded in worry, repetition, compulsion and endurance. My most recent and current projects revolve around a systematic approach to materials and my desire to collect, amass, and archive.

melitzah is defined by the process of creating it. The work deals with the polysemy of language, interpersonal communication, and personal discipline. **melitzah** hovers between a set of personal questions about legibility, interpretation, expression and understanding, and a semi-lexicographic archival enterprise.

melitzah [the Hebrew word meaning utterance: an uninterrupted chain of spoken or written words not necessarily corresponding to a single or complete grammatical unit][1] is comprised of an audio recording of my voice reading the Canadian Oxford Dictionary, and a visual archive containing the waveforms for the words of the dictionary.

The work takes on three forms:

1. The 22.5 hour-long voice recording of the 65,835 chosen headwords of the dictionary.
2. The 138 volumes of books representing the visual translation of the dictionary into amplitude waveform.
3. The searchable website: viewers may type in words, calling up the waveforms for those words and hearing my voice speak the words to them.¹

I am curious about these waveforms as visual representations of the auditory, which are linguistic representations of the cognitive. **melitzah** presents an empirically more accurate visual representation of the English language than the letters of our alphabet, which is nonetheless illegible, making analogous the failures of everyday communication with the abstraction of language into waveform.

Semiologically, the waveforms representing the sound of my voice reading the words of the dictionary transcend the arbitrariness of the language and meaning signifiers of our alphabet and our combinations of these pictures to make words, to create meaning. The waveforms are mathematically, scientifically grounded, representing the measurable quantities of amplitude, frequency, duration, and volume.

This grounding in the empirical is the basis for my hope-filled attempt to become a more articulate communicator of meaning, a faulty logic lending itself to failure, since the waveforms are ultimately illegible. These waveforms are specific only to me, to my language, voice, inflection, modulation, accent, and

¹ <http://www.risahorowitz.com/melitzah/index.html>

cultural and regional influences. Though there would be some mathematical and visual similarities, this vocabulary would change for each and every user.

I came to make **melitzah** as a result of having participated in an experimental audio art compilation, organized by the Canadian media centre Video Verite, and curated by the audio artist Steve Heimbecker. My project involved the digital recording and editing of a list of 'what-if's' I had compiled over the year. I fell in love with the waveforms used by the audio software SoundEdit 16 as the visual interface for the computer user/audio editor. I decided to create a visual vocabulary of waveforms as my next project and set out to determine the source vocabulary.

Although I'd spent many years on an autobiographical archiving project where I photographed myself over a seven-year periodⁱⁱ, I ruled out my personal journals - by then, I'd had enough of myself.

The story of the Tower of Babel is a myth that has always had resonance for me. This biblical story tells of a strong and united people who, in defense against enemies, endeavor to build "a tower with its top in the heavens." [4] I interpreted this as a figure of speech, but their deity felt this inappropriate since the heavens were his sole domain. He punished the people by creating different languages, confounding their ability to understand one another. I've always felt this was an unfair punishment - after all, how often do you find a strong and united people?

This story was to the point, but too short given my attraction for large-scale projects.

Over the months I began to understand more clearly what was so attractive to me about these waveforms - that they were actual representations of my voice - and I finally decided that the only vocabulary that would suffice was an entire one.

The dictionary - any dictionary - always presents itself as an authoritative tome. Like many archives it is an effective normalizer: the dictionary can normalize the use of language as much as document it. Ideologically, however, the dictionary has two faces: on the one side, it does not question the form of social contract that conventionalizes language use; on the other side, it serves as a resource of discovery for the use of language towards excellence, in providing definitive and pronunciation clues, points of usage and etymology.

The Canadian Oxford Dictionary [1] fulfilled my requirement for quantity - **melitzah** ranges from 2 - 8 gigabytes depending on the audio compression employed, has over 65,000 words, and an audio recording over 22 hours. This dictionary met my desire to engage in a highly structured and systematized studio practice: my work has been influenced by conceptual and process oriented artworks from the Sixties on. It met my interests in language and communication, and it met a self-imposed criteria for Canadian content. I also thought that it would be incredible to create a visual translation of the English language.

3. PRODUCTION

I began with a preliminary reading of the book, which took place during a stretch of unemployment at the local coffee shop in a sort of public performance. Over 32 days I read 50 pages a day, drawing boxes around words to include and crossing out excluded words, such as homonyms, abbreviations and certain proper nouns. The mark making would ensure I didn't miss words during the actual recording, and this reading also served to teach me the phonetic pronunciation key.

I then sat at the computer and, for 32 days, 50 pages per day, recorded, edited and archived to cd the words. I recorded in 10 page batches, and read straight through. If I was aware of a mispronunciation, I paused, said the word 'no', and carried on. When the batch was complete, I scanned the SoundEdit 16 timeline to visually identify the errors and delete them. The word 'no' is the only word I am able to identify, to read, in waveform.

To create the books - each of which average 500 pages - it was necessary to make image files based on the waveforms. The only way I could figure out how to do this was through manual screen-grab: 72 days. I also needed a matching wordlist, but Oxford Canada was unable or unwilling to sell me a digital file. Again, I reverted to a manual process: 21 days. With the assistance of Ryan Johnston, the sysadmin at The Banff Centre, a perlscript was written to automate the naming of image files according to the wordlist, and an html template was used to automate the layout of the pages of the books.

The printing was done on an office Xerox laser printer, which ran 16 hours a day for 6 weeks.

The binding was done professionally by Colin Bate Books in Calgary.

The website firstly required the individuation of the batches of audio files into discrete files for each word. Using automated export and formatting functions in ProTools audio editing software in combination with manually creating regions for each word allowed me to create generically named files to which I applied another naming perlscript, written by Leif H. Askeland.

The artist and programmer Tom Leonhardt was contracted to write and setup the php for the mysql database, and setup Apache on a standalone imac. The process by which Tom and I defined the logic of the piece was incredibleⁱⁱⁱ. Over several weeks we generated many hundreds of emails full of question and answer, defining main goals, alternatives and do or die scenarios.

One of the most elegant developments came in finding a solution for the problem posed by users who searched for words not in my dictionary. We found something called Soundex [3], which is a form of coded abbreviations for names created for an American census about 100 years ago, and which is supported by mysql. Based on the coded abbreviations, **melitzah** provides nearest matches for users.

Then, Tom connected to my computer from Toronto - several thousand kilometers away - and did the work. He later told me

ⁱⁱ http://www.usask.ca/art/horowitz_gbam/home.html

ⁱⁱⁱ I'm proud that this process also enabled me to learn a little bit about unix and navigating the command line!

that one of the reasons he decided to work with me on the project remotely was, simply put, because it was possible.

This systematic approach, the reading, recording, archiving, managing, saving, planning, typing, printing, binding, individuating, script-writing, server-side automating, collaborating, backtracking, formatting: it proved a particular form of digital materiality for me, and confirmed my belief that computer use does not always support the Cartesian duality so often applied to it. Those folders and files became objects that had as many perceived physical properties as a book in my hands or scrabble tiles on my deck. They did not, alternately, improve my scores or my ability to do crosswords.

The repetition of actions involved in making this work made me aware of the distinction between meaning and data or information. Information, in this instance, was more often processed without a direct associated meaning. I felt like I was inverting the proposition Roland Barthes made about the photograph as a message without a code: that I was working with a tremendous amount of code with no message.[2]

4. INTERACTIVE ART AND MELITZAH

Artists and curators often speak romantically about how interactive art enables and empowers users, gives the user complete control over the narrative or the proceedings of an interactive artwork. Interactive art is no more or less empowering than a choose-your-own-ending novel: there are variables, but they are limited. Interactive artworks are limited by physical and programming parameters, by media, by environment, and, in the case of **melitzah**, by vocabulary. The limits of interactive art are, in fact, a control of the user in the same way that smart graphic designers lead an eye across a page.

melitzah is limited by the possible combinations of the 65,835 words in the database, bandwidth, and the vocabulary of the user.

Despite this control, **melitzah** does enable in its own way. Viewers have the liberty to become creative. They are competent: they know how to conduct an internet search, and certainly know how to construct sentences. Users of **melitzah**^{IV} can and do acquire a sense of authority and authorship over their interaction with the work, and they appear to take great pleasure in their discovery and play with the machine. They are satisfied when the words they seek are found, and alternately frustrated and tickled-pink when the Soundex code provides them with unexpected results.

5. CONCLUSION

melitzah is an art project that mixes up the visual relationship between language and speech by questioning the semantics of the symbols that we use. In aiming to make a closer connection between the words I speak to communicate my thoughts - in taking at face value the desire to make a science of semiotics - **melitzah** presents an oddly literal artificial system of semiosis. Its mimetic basis points, above all, to my belief that art is a communicative discipline and engagement, the purpose of which is, simply, to convey.

^{IV} In a way, these users are actors, they perform the piece.

6. REFERENCES

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