In the beginning was the word. I'll begin with one: APPLE. Can you imagine one right now? Is it a red apple? Is it a green one? Does it smell of anything? Where is it? Is it on a tree? On a table? You can visualize any apple or any table. And each one of you will think differently, and not even two of you will create in your mind the same apple or the same table. That will never happen. Do you think the word APPLE appears in *Finnegans Wake*? Those who have read it perhaps cannot remember very well because it is not a strange word, but I can tell you that the term, either alone or in the beginning, middle, or end of a different word, appears around 30 times. Here are a few examples:


*Broken Eggs will pursue an bitten Apples for where theirs is Will there's his Wall;* (Joyce 175.19–20)

rhubarbarous maundarin yellagreen funkleblue windigut diodying applejack squeezed from sour grapefruit (Joyce 171.16–18)

thought he weighed a new ton when there felled his first lapapple; (Joyce 126.16–17)

If my apple led you to very distinct pictures, I cannot even imagine how different Joyce’s apples will be, judging by these examples. I believe that it will be harder for you to mentally draw them. Now imagine that all words are apples, all expressions branches, all sentences trees, and all texts fields. If you place yourself in an ordinary field, with regular trees, this means that with common and regular sentences, the apples will fall in your hands, you only need to stay in the field, observing the trees, and the apples will reach you. But the apples I want to present to you have to be captured, you need to plant them, expecting that they will probably grow if you could place them in a solid contextual ground. What I want

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you to do then is to place yourself in two specific fields, seeded by the Irish writer James Joyce and the North American artist John Cage, and try to understand how you can get this kind of apple. In other words, my aim is to give you an insight into the relationship between Joyce’s words and Cage’s appropriation of them, and our understanding and cognitive approach to them as listeners or readers. In short, my proposal is to show you in which way Joyce and Cage helped to change our perception of language.

In order to proceed, we have to know what John Cage did with *Finnegans Wake*. What kind of recycled composition did he create?

**ROARATORIO**

John Cage opened the Viking Press edition of *Finnegans Wake* at random (and fell on page 356), and started to write mesostics, a poetic form which consists of ten horizontal lines where the words JAMES JOYCE are spelled vertically down the middle; the first letter of the name – J – is on the first line, but we cannot find the second letter – A – which must be on the second line without the third letter – M – which should appear on the third line, and so on. Initially Cage wrote one hundred fifteen pages of mesostics entitled *Writing Through Finnegans Wake*. This is one of the mesostics, corresponding to one of the last pages of Joyce’s book:

```
My lips went livid for the Joy
of feAr
like alMost now. how? how you said
how you’d giVE me
the keyS of me heart.

Just a whisk brisk skry spry spink
spank sprint Of a thing
i pitY your oldself i was used to,
the Cloud.
In pEace
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(Cage, *Empty Words* 134)

The name of the Irish author appears down the middle through the mesostic which, in comparison to the original text/page, omits a lot of sentences around the words that have the letters of his name. If you look at the outline of the words selected by Cage you can notice that Cage’s mesostics are like clouds in Joyce’s sky.

Nevertheless, these were not the only mesostics that Cage created from the *Wake*; his editor, finding it too long (115 pages with 862 mesostics), suggested that Cage shorten it, and instead of shortening it, Cage wrote another group of mesostics entitled: *Writing for the Second Time Through Finnegans Wake*. The process here
was quite the same, though Cage did not allow the repetition of a syllable for a given letter in James Joyce’s name: for example, “the syllable ‘just’ could be used twice, once for the J of James and once for the J of Joyce, since it has neither A nor O after the J. But it could not be used again” (Cage, *Empty Words* 135-136). For this purpose, Cage had a card where he listed the syllables that he already had used, making sure that he would not repeat them. The consequence was a group of mesostics that were half as short as the first one, being only forty pages long. These mesostics were the ones Cage used on the performance that I want to present to you: *Roaratorio: An Irish Circus on Finnegans Wake*.

*Roaratorio* was first broadcast on October 22, 1979, for WDR in Cologne, Germany, as a *hörspiel* (a German term for radio-play or ear-play, literally translating), bringing out Cage’s multilayered theatre form through the medium of radio. It was then broadcast in West Germany, Holland and Australia, and was first produced on stage at the Paris Festival d’Automne, at Beaubourg, in 1980, on the occasion of the centenary of James Joyce’s birthday, and later performed with the Merce Cunningham Dance Company in 1983. *Roaratorio* was awarded the Karl Szuka Prize for the best composition for 1979, being considered as “an endlessly rich acoustic world, [...] strongly rooted in literary and musical ideas [...] in which the listener can have experiences at will and is exposed to experiences which the radio, normally restricted to the mediation of one-dimensional information, cannot normally offer” (Karl Szuka Prize’s jury cited by Kostelanetz 216).

How does it all sound? What is this acoustic world created by John Cage? And how is it connected with Joyce’s book? In order to explain the final result, let me take a brief look at Cage’s process, and tell you how he did it. We already know that he started to write mesostics under the name of James Joyce through *Finnegans Wake*. It was by the time when Cage had completed the *Writing for the Second Time*.
through Finnegans Wake that Klaus Schöning from WDR asked him to make some music to go with these mesostics, and Cage said he would, starting to read through Joyce's book again and make a list of all the sounds he noticed were mentioned in it. The result was a very long text called "Listing through Finnegans Wake" where there were between four and five thousand acoustic items.

Cage then used A Finnegans Wake Gazetteer by Louis Mink who listed all the places mentioned in Joyce's book, and as Cage himself said: "there are [places] all over the world and out into space, physical space and that of the imagination. Half are in Ireland, and half of these are in Dublin" (Roaratorio CD booklet). Cage decided then to connect place with sound, adding recordings of ambient sound from the places mentioned in the book to the sounds that he already listed. But Cage was not yet completely satisfied with these two lists, and he also decided to add Irish traditional music, some Irish songs sung by Joe Heaney, many of them in Gaelic; some music for the fiddle, the flute, the uilleann pipes and the bodhran drum.

Roaratorio is then composed by 4 groups of sounds: the first group is mentioned in Finnegans Wake and is listed by Cage himself; the one with the ambient sounds, which corresponds to the places also mentioned in the book, is listed by Louis Mink; another one has Irish traditional music; and the final one includes the reading of the mesostics by John Cage himself. In these group recordings there are various kinds of music, instrumental and vocal, various kinds of humanly produced noises, shouts, laughter, tears, various birds and animals, sounds of nature, water, wind, thunder, and many other sounds like explosions, bells, or breaking glass, and, of course, Joyce's words.

John Cage worked on multitrack tapes to make an hour long hörspiel with an incredible quantity of juxtaposed fragments of sound material. In order to accomplish all the recordings, he reduced the number of places listed in Mink's book, chosen by I-Ching chance operations, to 626, the number of pages in Cage's edition of the Wake. He then had the help of many friends who went to those places to record the ambient sounds. After having recorded all the sounds (the ambient ones, the items of his own list, the circus of Irish traditional music, and his reading), he put them all together by placing them according to the page and line they appear in the book. In other words, Cage used his reading as a ruler, since all of its parts could be identified by the page and line of Finnegans Wake which could then determine the right placing for all the other sounds. Each sound was therefore placed in relation to the whole book, and in relation to the mesostics read by Cage.

BABEL FORM

Even though John Cage had finished his complex composition, he had a few doubts about his ability to accomplish all the work during the process, due to the enormous amount of sounds to record. In his award speech, Cage had a curious remark about these doubts:
I began to think of Venus de Milo who had managed to get along so well through history without arms. I began to consider that the Milo situation in reverse: a work could be made incomplete to begin with. One could approach the whole work in such a way that from the beginning it was at all times and at anytime finished. (Roaratorio CD booklet)

This comment is not only interesting regarding Cage’s doubts, but is mainly important regarding the way he always works. Cage’s compositions were never complete bodies. They were not unified pieces, but many desegregated pieces. Roaratorio is, of course, a composition in pieces, a multilayered construction of separated elements that are presented to the listener as a chaotic medley of sounds and words, a complete babelian confusion: layers and layers of places over sounds over places over words over sounds over sounds over words, over and over.

Therefore, Roaratorio, as a recycled composition based on Finnegans Wake, is not only retelling some of his sentences, words and implicit sounds, through the mesostics and recordings, but also its main form: a Babel-like tower. Cage’s composition can recount the Babel myth, in the sense that it also underlines the confusion of languages and the multiplicity of idioms, speeches, or expressions. Nevertheless, by subverting some rules for sentences and word combinations, it goes further by retelling the impossible task of representation in terms of a perfect relationship between a system of signs and its meaning.

The very first word of the title of Cage’s work already points to this concern. Roaratorio, which is Joyce’s portemanteau that John Cage had read each time he went through the book, is a good example of how the use of language signs can constantly blend their form (either graphical, this is visual, or aural) and their meaning. We can quickly grab two words in the word ROARATORIO: ROAR and ORATORIO. Cage’s title underlines the very architecture of his work, which results from the combination of music, speech and noise. Besides, and ironically, the title already gives emphasis to the fact that language (here in the form of ORATORIO’s the art of speaking eloquently) can fall into unintelligibility and noise.

Cage’s oratory is dismantled like the Tower of Babel. If Finnegans Wake already started to show the fragile construction of language, the recycled composition of Cage continues to confirm its weakness, promising word by word that its legibility could always collapse. The Babel myth tells of the fall of a dream of a single language where all humans will perfectly understand each other. The fall of that dream, retold by Joyce, and then resounded by Cage, puts into question the very limits of comprehension, the boundaries of human perception and interpretation.

THE READER AND THE LISTENER

The Greeks thought that light entered the eye carrying with it what we see, bringing reality as it truly is. Now we know that they were wrong because it is the brain which does all the work. It is, in fact, the brain that parses the light spectrum,
arranges the outlines, and puts everything together to form a mental picture. During this mental process, language, culture and memory act as filters to reshape our view. We all start seeing the same things but end creating our own interpretation. For us, the world is not an entity outside our head; we could conceive that, but we will not be able to know that world. The real world only exists to us as an illusion in our mind.

As far as language is concerned, the meaning of every word is neither in the word itself nor in what it might stand for, but in our head. Listening to *Roaratorio* or reading *Finnegans Wake*, even if they are different mental processes, they put into question, either to the listener or to the reader, the very nature of language perception. I will not extensively describe the cognitive processes of listening and reading, but I will focus on some steps of these processes, which better connect language cognition with the works of Joyce and Cage.

The cognitive process of listening to a spoken language begins when the listener is able to separate speech from any other auditory input which may be reaching the ear at the same time. In the case of listening to *Roaratorio*, the listener will probably find it difficult to isolate words that barely can be heard within the fused sound matter; a possible discourse will almost certainly be a fragmented one. Unfortunately, the process of word identification doesn’t end here; still the words in speech are not separated by discontinuities in the auditory signal, due to coarticulation and other phonological assimilations, the listener also has to identify the words in a continuous stream. The way words in speech mostly differ from written words is that only written ones are divided by blank spaces between them. So, in speech, it is the listener that must divide the sound flow, recognizing specific combinations of sounds as words.

How is this recognition made? The task might seem to be only a matter of matching the input sequence to the stored words in the listener’s mental lexicon. However, there is another problem for the listener because his vocabulary contains tens of thousands of words, but words are the result of the combination of only 30 to 40 phonemes. This means that words are not highly phonologically distinctive, one spoken word can resemble many words, and might have other shorter words embedded within them. This is really an important issue, not only because words can be easily misled through sound resemblances, but also because that same resemblance is extremely connected with the way Joyce created and combined his words, mostly the ones invented. For instance, the word LIPOLEUM can resemble LINOLEUM or NAPOLEON, and, at the same time it has embedded the words LIP and OLEUM. When John Cage is articulating these words, it is even easier to get countless word possibilities, especially because there are other intrusive sounds. In *Roaratorio*, as in *Finnegans Wake*, the sounds are fused and confused, we don’t know where one starts and the other ends; they are melted, continuously dissolving many possible references.

Reading is a cognitive process that begins as a visual process, and then converts the visual input into a linguistic representation that will match with the
reader’s lexicon. The identification of written words are firstly made through their orthography, from the visual input of a string of letters, but, along the way, phonemes associated with those letters can also be activated. So, a phonological association can increase the activation of words, and a more effective identification of those words. Therefore, the cognitive process of reading is commonly represented in two pathways: one from graphemes to meaning directly, and one from graphemes to phonemes and then to meaning (a mediation pathway). The first pathway provides a direct link to a word representation from the visual input, and the second converts the visual input into sound, which is brought into play to access the word representation. Thus, the word’s phonology plays an important role as an intermediate step in the reading process.

Joyce’s words seem to demand this mediated pathway; his non-words, mixing sound units with graphic units, cannot only be looked up, the reader has to look and hear them at the same time. The phonological mediation of reading *Finnegans Wake* is not only possible, it is necessary. For example, the word *DEJEUNERATE*, a micro Babel construction, can combine the French word *DÉJEUNER*, which means lunch, with the English word *DEGENERATE*. When I focus only on the sound of the word, I read the English one. But when I simply look at the word, when I perceive only the visual side of the word, I read the French one, almost certainly because of the letter J. And if I force my brain to think only in French terms, I can also make the combination of the three French words *DE / JEUNE / RATÉ*. Joyce is always trying to put the reader in the middle of a crossroad of phonemes, graphemes and different languages where he cannot decisively choose a way out.

In *Roaratorio* we lose the visual input of the combination of Joyce’s letters, but we enhance the possible word-sound-connections through the coarticulations of speech. Furthermore, *Roaratorio* adds the concrete dimension of the implied noises, jingles, alliterations, rhythms, and rhymes. We lose the visual dimension of words, but we gain, through perception, the visual mediation of those sounds. If in the *Wake* we are mediated by the words’ phonology, in *Roaratorio* we are mediated by concrete sound imagery, our brain starts to transpose those sounds into images; thus I do not doubt that many people who have heard *Roaratorio* say that they felt like they were in Dublin.

**WHITE MEANING**

What readers and listeners don’t really have in both *Roaratorio* and *Finnengans Wake* is a straight word comprehension. The question is how they could select and grasp what a word could eventually mean in any sentence of the book or in any mesostic of the *hörspiel*. An automatic and general answer to this question will certainly be context. The meaning of a given word is determined by the context in which it takes place.
However, the context of any given composite word in the *Wake* is created by other composite words. If the reader cannot decide the meaning of a particular word in a sentence, and tries to grasp it through the surrounding words, which are also unreadable or readable in many possible ways, he will definitely feel puzzled, and many meanings will then be feasible. In *Roaratorio* there is neither any complete sentence, nor any punctuation; the syntax becomes totally disruptive and any possible context completely lost. The blended architecture, either in *Roaratorio* or in the *Wake*, puts the spectator into a puzzled situation: a cacophony of many possible meanings.

What can we call something that has all possible meanings? Or something that has no meaning at all? What is the result of the combination of every color? White. White is the combination of all colors in the light spectrum. But it can also be the absence of colors in terms of visual arts – a canvas with no matter is a white one.

In the cases of Joyce and Cage, we have printed matter or sound matter that is physically present, either on the page or in the tape, overflowing or unfilled with what I would like to call *white meaning*. Usually, words are here and now, in the moment we read a book, or in the moment we hear a speech, and also *elsewhere*, evoking something, making reference to, bringing to mind objects, ideas or experiences that are somewhere else. In linguistics, these two inseparable sides of words are understood as the model of the linguistic sign, which is made up of both a signifier and a signified. In short, every word has a sound and a corresponding meaning.

However, almost all the matter of Joyce and Cage has a *white meaning* because it doesn’t lead the reader or listener elsewhere, but *everywhere*, when he perceives a kind of *multiple sense*; or *nowhere*, when he cannot perceive any sense at all, which means that he finds it to be *nonsense*. Cage called these words *Empty Words*, which is also the title of the book in which *Writing for the Second Time through Finnegans Wake* is published. For this same issue and for the question – what kind of words did Joyce use, or in which field did he place them? - I take a chance to choose an answer Joyce already had given in *Finnegans Wake*: “Answer: A collideorscape” (143.28).

Derek Attridge’s interpretation of this answer is a combination of a “landscape of collisions” and a “kaleidoscope”, putting them together in something that he called “lexical explosions” (140). The first time I read the word COLLIDEORSCAPE, curiously the word kaleidoscope also came to my mind. And after reading Attridge’s interpretation, especially focusing on the word collisions, I realized that it could actually be divided into three words: COLLIDE / OR / SCAPE; the third one being an archaic variant for escape. But what I didn’t really know is that a scape can be a flower stalk, a stalklike part such as that of an insect’s antenna, or a shaft of a column. All these meanings escaped me, and now that I know them, they collide and collide again and it is really hard for me to decide what COLLIDEORSCAPE could mean, and I’m always lost in between all and none of the possibilities (of meaning).

In fact, the words collide with each other, mixing senses and meanings, in a kaleidoscopic conflict, and, at the same time, escaping from any sense in a very
large field of dissonant and impossible meanings. Furthermore, they can collide at the very first time, and escape one second later, or on further interpretations. They can be, as Joyce said: “Interpretations of interpretations interpreted”. It will then be the spectator that, with or without previous interpretations, will fill the empty words through his own perceptive escapes and collisions. Joyce and Cage confront the spectator with this evidence, making him aware that everything he perceives results from his own and unique construction.

Cage and Joyce want to interrupt the reading automaticity, delaying our understanding. They don’t want us to read or listen, but rather to write and play. They play with our brain; they tease us, always creating amusement with a kind of pun game, constantly asking for a re-creation. We have all, for sure, played at least once with the shapes of clouds, trying to imagine what they could be. Their game, just like the clouds game, is also asking for a reshaping of something that has no concrete outline or asking for a recoloring of something that is white. There’s a comic strip by Charles M. Schulz that shows us how our brain can individually play with indeterminacy, and about the way others’ insights could interfere with our own:

![Comic strip](image)

This sense of an art work as a cloud, as an open container, which we can find in both *Finnegans Wake* and *Roaratorio*, implicitly undermines the very position of the author, reducing distances between writing and reading, between production and reception. Joyce’s text and Cage’s collage practice relocate listening and reading as individual and creative experiences. In the beginning was the word. In the
end there will always be the interpretation. Cage and Joyce still wake up their spectators.

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