

## Composer as Curator: Uncreativity in recent electroacoustic music

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### Abstract

Touching upon the history and aesthetics of 20th century recorded media and digital information, and using 21st-century music information retrieval (MIR) as an analytical resource, I argue for curation as artistic process in examples drawn from recent electroacoustic music.

Over the last century, electronic culture has increasingly acknowledged curation as a creative act. Not only is the curator more visible in visual arts, but authorship is increasingly attributed to the “DJ,” “remix,” and “mashup.” The visual arts and writing have embraced digital curation, including prominent figures like Christian Marclay, Ai Weiwei, Jonathan Lethem, and Kenneth Goldsmith. In *Uncreative Writing* Goldsmith critiques recent poetry for its resistance to these new sites of invention: “From the looks of it, most writing proceeds as if the Internet had never happened”. However the same could be said of much music, even electroacoustic music.

One explanation is technological: while search engines have made unprecedented quantities of digital text immediately accessible, the transition of sound from analog to digital was at first not accompanied by a similar revolution in searchability. Audio can be searched through textual metadata, especially using the Internet, but only recently have MIR techniques become available for searching sound itself.

Since the late 1990s, the growing field of MIR has explored the uses of audio feature extraction to summarize information about digital sound. An audio feature, or descriptor, is any characteristic attributed to audio such as pitch, loudness, brilliance, or higher-level metadata. MIR is changing the way music is categorized, marketed, and recommended through companies like Pandora and The Echo Nest. It also has applications for creation.

A recent generation of electroacoustic artists have embraced MIR to curate large databases of audio recording, going far beyond traditional sampling techniques. They include composers and improvisers Johannes Kreidler, Maximilian Marcoll, Matthew Schlomowitz, Alec Hall, Bryan Jacobs, William Brent, Ben Hackbarth, and Diemo Schwarz, many of whom program their own computer tools as an extension of the curatorial process for gathering and filtering material. For example in Kreidler’s work *product placements* 70,200 sources are sampled in a 33-second electroacoustic piece. The impact of the work goes beyond a concert realization: as Kreidler writes, “the work is a network” (“*Das Werk ist ein Netzwerk*”).

In my own work *Without Words* for soprano, ensemble, and electronics, databases of texts, field recording, vocal, and instrumental samples are combined using MIR techniques into multilayered audio mosaics, each of the sources activating a different time and place in the

work's genesis. These examples challenge the concert work as a unique site of creativity: instead, archive-like totalities and multiple temporalities become equally important in a distributed process involving many creative voices in dialogue.

### ***Uncreative Writing***

In his 2011 book of essays *Uncreative Writing*, poet Kenneth Goldsmith asks, “clearly this is setting the stage for a literary revolution. Or is it? From the looks of it, most writing proceeds as if the Internet had never happened” (Goldsmith, 2011, p. 6). While Goldsmith is critiquing the current state of poetry, the same could be said of much concert music, even electroacoustic music.

Over the last century, electronic culture has increasingly acknowledged curation as a creative act. Not only is the curator more visible in visual arts, but authorship is increasingly attributed to the “DJ,” “remix,” and “mashup” (Einbond, 2013, p. 58). Marjorie Perloff, in her 2010 book *Unoriginal Genius*, coins the term “moving information” to highlight a growing emphasis not on creation of content, but on “mastery of existing information and its dissemination” (Goldsmith, 2011, p. 1). Goldsmith points out that far from being unique to the digital age,

nearly a century ago, the art world put to rest conventional notions of originality and replication with the gestures of Marcel Duchamp's readymades, Francis Picabia's mechanical drawings, and Walter Benjamin's oft-quoted essay ‘The Work of Art in the Age of Mechanical Reproduction’ (Goldsmith, 2011, p. 7).

Acknowledging the debt of recent digital writers to this earlier generation of uncreative artists, Goldsmith says “with the rise of the Web, writing has met its photography” (Goldsmith 2013). Recent visual arts and writing have embraced digital curation of large archives or databases of material, including prominent figures like Christian Marclay, Ai Weiwei, Jonathan Lethem, and Kenneth Goldsmith himself, as well as many genres of popular music.

### **Searching Sound**

In one sense nearly all electroacoustic music could be termed “creative curation,” as all except purely synthesized electronic sound material is borrowed from some source. Yet much electronic concert music still holds on to pre-digital concepts of originality and authenticity. However there is a growing trend of composers redefining creative curation in electroacoustic and mixed music including Peter Ablinger, Johannes Kreidler, Maximilian Marcoll, Matthew Schlomowitz, Jennifer Walshe, Alec Hall, Bryan Jacobs, and many more.

One explanation for the reluctance of some composers to abandon pre-digital notions of originality is technological: while search engines have made unprecedented quantities of digital text immediately accessible, the transition of sound from analog to digital was at first not accompanied by a similar revolution in searchability. Audio can be searched through textual metadata, especially using the Internet. But this is a technology borrowed from the medium of digital text, much like the textual copy was imported from the media of audio recording and photography a century before. Only more recently have MIR techniques made it possible to search sound itself.

Since the late 1990s, the growing field of MIR has explored the uses of audio feature extraction to summarize information about digital sound. An audio feature, or descriptor, is any characteristic attributed to audio such as pitch, loudness, brilliance, or higher-level metadata. MIR is changing the way music is classified and marketed through companies like Pandora and The Echo Nest. However MIR can also be exploited for creation (Einbond, 2013, p. 65). A growing list of MIR and related tools, although far from exhaustive, is included in example 1 (last accessed 09/14).

CataRT	<a href="http://imtr.ircam.fr/index.php/CataRT">http://imtr.ircam.fr/index.php/CataRT</a>
FTM & Co.	<a href="http://ftm.ircam.fr/">http://ftm.ircam.fr/</a>
MeapSoft	<a href="http://www.meapsoft.org/">http://www.meapsoft.org/</a>
TimbreID	<a href="http://williambrent.conflations.com/pages/research.html">http://williambrent.conflations.com/pages/research.html</a>
SCMIR	<a href="http://www.sussex.ac.uk/Users/nc81/code.html">http://www.sussex.ac.uk/Users/nc81/code.html</a>
AudioGuide	<a href="http://www.benhackbarth.com/audioGuide/">http://www.benhackbarth.com/audioGuide/</a>
The Timbre Toolbox	<a href="http://www.cirmmt.org/research/tools">http://www.cirmmt.org/research/tools</a>
quince	<a href="http://quince.marcoll.de/">http://quince.marcoll.de/</a>
bach	<a href="http://www.bachproject.net/">http://www.bachproject.net/</a>
MuBu	<a href="http://imtr.ircam.fr/imtr/MuBu">http://imtr.ircam.fr/imtr/MuBu</a>
descriptors	<a href="http://www.alexanderjharker.co.uk">http://www.alexanderjharker.co.uk</a>
ircamdescriptors	<a href="http://forumnet.ircam.fr/product/max-sound-box/">http://forumnet.ircam.fr/product/max-sound-box/</a>
Zsa.descriptors	<a href="http://www.e--j.com/index.php/download-zsa/">http://www.e--j.com/index.php/download-zsa/</a>
EchoNest	<a href="http://echonest.com/">http://echonest.com/</a>

**Example 1:** some music information retrieval (MIR) software and related tools

## Composer Curators

While one might not think of it as a typical example of “electroacoustic” music, Peter Ablinger’s *Voices and piano* combines live piano with one-channel electronic sound. The work “is an extensive cycle of pieces, each for a single recorded voice, mostly of a well-known celebrity, and piano”. It is curated in the sense that the recordings are drawn from our collective cultural archive, and only “framed” by Ablinger with a spectral analysis of the voice used for the piano accompaniment. Another layer of curation is left to the performer, who must choose and order a subset of the cycle for a given performance. As Ablinger writes in the program note: “The work is always meant to occur as a selection from the whole. At present I like to write works where the whole should not be presented at once. The whole should remain the whole, and what we hear is just a part of it.”

A more extreme example, Johannes Kreidler’s *product placements* (2008) samples 70,200 source samples in 33-seconds. Kreidler states, “the work is a network” (“*Das Werk ist ein Netzwerk*”) and further describes in an interview, “In this piece, the musical composition, the essay, the sculpture, the performance, and the entire discussion surrounding are materials: one could say it’s a multimedia theater work” (*Multimediales Musiktheater*). So the subject of the work is the act of curation itself. Kreidler’s video documentation shows him using a patch with software *Pd* to select and organize the samples. One could speculate that a similar patch was used to fill out automatically the paperwork for GEMA (see example 2, last accessed 09/14).

<http://kreidler-net.de/productplacements-e.html>

**Example 2:** video documentation for Johannes Kreidler's *product placements*

Maximillian Marcoll collects found sounds in his Compounds series (2008-2014). He writes, paraphrasing Stockhausen, "The music of today demands new imaginations of sounds everybody knows". Similar to Kreidler, he describes a "material network" (*Materialnetzwerk*) and his curatorial approach is suggested by the phrase "decentralized composing" (*Dezentrales Komponieren*), which could be read both in reference to his own networked compositional process, and to the multiplicity of the actors that produce his recorded sonic material (Marcoll, 2012). Like other composer-curators, Marcoll extends his creativity to software development through his freely-distributed software *Quince* (see example 1). Marcoll also builds his own instruments and performs with them, further decentralizing composerly authorship, as in *Compound No.5: Construction Adjustment* for "Black Box" and electronics (see example 3, last accessed 09/14).

[https://www.youtube.com/watch?v=E\\_mDeWJjGaM](https://www.youtube.com/watch?v=E_mDeWJjGaM)

**Example 3:** Maximillian Marcoll, *Compound No.5: Construction Adjustment*

## Without Words

How does one build and navigate a large database of samples in practice? For a more detailed example, I turn to some of my own work to describe how MIR-inspired analytical tools can be used for curatorial organization.

While composers like Kreidler and Marcoll have used software development as part of their creative process, I take advantage of the wealth of tools already being developed, including the CataRT package and FTM & Co. signal processing extensions for *Max* (see example 1) developed by Diemo Schwarz (2007).

As detailed elsewhere (Einbond, 2013), the first step of the compositional process is a meeting with the performer collaboratively to record a large database of samples. The resulting samples are not only "radically idiomatic," to quote Derek Bailey, but "radically personalized" for a specific performer and her instrument. As all of the material for the work is drawn from this sampling session one could say the work is performed before it is composed, reversing the usual creative hierarchy.

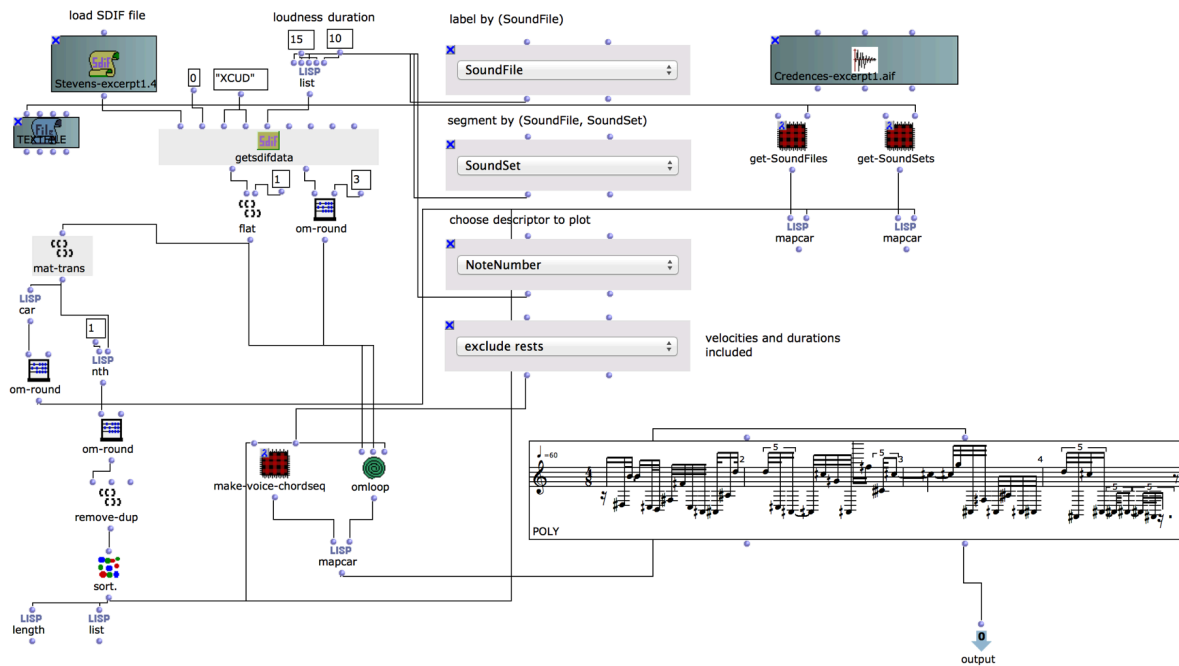
A brief glimpse of this process can be found in *Without Words* for soprano, ensemble, and electronics. First a selection of texts was itself curated through memory, subjective association, and internet searches. This text network was given to soprano Amanda DeBoer Bartlett as the basis for her improvised recording together with the composer of a sample database. The other sound sources of the work are equally diverse and include instrumental samples, self-made field recordings, and found audio recordings. For example a line from Wallace Stevens's poem "Credences of Summer" led to a recording of the poet reading (example 4, last accessed 09/14) and a sonorization of solar radio telescope data (example 5, last accessed 09/14).

[https://media.sas.upenn.edu/pennsound/authors/Stevens-Wallace/1952/Stevens-Wallace\\_3\\_Credences-of-Summer\\_Harvard-Woodberry\\_1952.mp3](https://media.sas.upenn.edu/pennsound/authors/Stevens-Wallace/1952/Stevens-Wallace_3_Credences-of-Summer_Harvard-Woodberry_1952.mp3)

**Example 4:** Wallace Stevens reading "Credences of Summer"

[http://soi.stanford.edu/results/three\\_modes\\_1\\_0\\_1\\_2.aiff](http://soi.stanford.edu/results/three_modes_1_0_1_2.aiff)

**Example 5:** Sonorization of solar data from the from the Michaelson Doppler Imager



**Example 6:** *OpenMusic* patch showing transcription of Wallace Stevens quotation with bass flutes samples. SDIF output from *CataRT* is input to patch, MusicXML is exported to *Finale*

The image displays a musical score excerpt from *Without Words*. It features five staves: Bass Flute (B. Fl.), Electric (Elec.), Violin (Vln.), Viola (Vla.), and Contrabass (Cb.). The Bass Flute part includes a transcription of Wallace Stevens' text: "[Trace the gold sun about the whiten'd sky Without evasion by a single metaphor.]" and various musical notations such as dynamics (f, p, sfz, f, pp, mf, ppp) and articulations (pizz., flz., tr.). The Contrabass part shows solar sonorization transcription with complex rhythmic patterns and dynamics (mf, sfz, pp, f). The score is marked with a 4/8 time signature and includes performance instructions like 'arco', 'pizz.', 'tr.', and 'table'.

**Example 7:** Corresponding score excerpt from *Without Words* showing Wallace Stevens transcription in the bass flute part and solar sonorization transcription in the contrabass part.  
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<https://soundcloud.com/aaroneinbond/sets/without-words>

**Example 8:** *Without Words* performed by Ensemble Dal Niente (excerpt begins at 10:18)

Both recordings in Examples 4-5 were used as the basis for audio mosaics of vocal and instrumental samples made with *CataRT* and *OpenMusic*, for example a bass flute transcription of a line from Wallace Stevens (example 6). This transcription is subjectively edited to compose the final instrumental score and to be reinterpreted by the same performers who produced the source instrumental samples (examples 7-8, last accessed 09/14).

These examples provide a non-exhaustive look at new definitions of creativity that challenge the concert work as a unique site of authenticity: instead, archive-like totalities and multiple temporalities become equally important in a distributed process involving many creative voices in dialogue. Yet even with music bathed in samples, databases, references, and borrowings, the contrasting musical results the artists derive attest to the individuality of their curatorial approaches.

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