**TOHU BOHU: Considerations on the nature of noise, in 78 fragments**

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Tohu va-bohu in the Torah is usually translated as "empty and shapeless," but in Hebrew tohu means "ruin," and bohu, "desolation"; for French speakers today, tohu-bohu means chaos, mess, hubbub.

Noise—a set of unharmonious sounds.

This sends us back to the definition of harmony—but harmony in a specific historical context. We see at once how difficult it is to speak simply and plainly about such familiar concepts. By noise is meant essentially our perception of it. In a sense, there is no adequate definition of noise.

Noise usually implies loud or unpleasant sounds—we tell kids to stop making a noise. It’s contrasted with silence, which is supposed to be golden, enlightening.

John Coltrane’s Ascension [1], in 1965 dismissed as undifferentiated noise, is now seen as a more subtle form of harmony that combines chaotic material and an ascending movement. Ascension broke with the old view of noise.

When I first heard the 30-minute A Little Noise in the System (Moog System, 1966) by Pauline Oliveros [2], the power of its development seemed clear. Others who have heard this piece recently all had the same impression. On reflection, this listenability seemed puzzling to me, till I realized that our listening habits—familiarity with Oval, Fennesz and Aphex Twin—have done the trick. With our ear conditioned, we could enjoy all those early subtleties.

Ars Nova. When audiences of the 1950s and 1960s first heard Varèse, Pousseur, Stockhausen, Berio, Ussachevsky, Yuasa, Dockstader and Mumma, what did they feel? Perhaps a sort of break, an epistemological break, like it must have been for the first audience of Monteverdi’s *Orfeo* (in Mantua, Italy on 24 February 1607). They left the auditorium completely stunned, because they had never heard anything like it.

Noise—an undesirable disturbance additional to the signal and useful data, in the transmission channel of a data processing system.

Dionysian celebrations—sound and fury. The sacred aspect of the fear that anything might happen.

An indefinable noise in a small readymade by Marcel Duchamp [3]—paradox of an infinitely small noise.

Tired of centuries of silence, today’s art galleries and museums are beginning to accept sound installations. Artists, including sculptors, are making a noise. Sounds repeated all day long, traversing corridors and rooms, so that sitting or standing the attendants wear earplugs. Videos rewind and restart, sounds and images go on endlessly, there are loops everywhere.

In his most famous installation *Vinyl Requiem*, Philip Jeck employs no fewer than 180 turntables. His material is the vinyl disc. Most are cheap junk-shop finds. It all started by chance, when he came across an old turntable. The discs are left out of their sleeves to accumulate their own personality of cracks and scratches. The progressive degeneration of original sound material through successive re-recordings is celebrated in Jeck’s textural aesthetic. He works with accumulation and stratification, and also with memory, and so combines recycling with the love of vinyl records [4].

You might not actually recognize the records I’m using but I think they do stimulate some memory of some sound in some subconscious way. They’re all like little stored pieces of memory. What’s in those records is just so endless.”

—Philip Jeck

In the dying fall of a sound, someone thinks he hears the silent voice of Brian Wilson.

Cross-reference: Broken Music by Milan Knizak—a sculpture made of old vinyl discs, the gallery paved with Christian Marclay LPs [5].

Before tackling music, we should record the sounds of nature—rushing leaves, thunder, earthquakes, landslides—and the electrical sounds, telephone, shortwave radio. All those sounds of the late 19th century, the noise of the city, all those new sounds. The noises of the industrial revolution, of turbines and locomotives—and those of war, at the front, in a hail of bullets, or cowering in basements, waiting.

Orchestral clash. Military strategy (victory) revisited, with the battle played by musicians. Clément Janequin’s *Bataille de Marignan* (1515). Spanish baroque organ music in Ataun, the Basque country: horizontal pipes aimed at the audience (battle trumpey). *Bataille Imperial* by Juan José Cabanilles, circa 1690 [6].

Tempests, storms, natural catastrophes all figure in Monteverdi’s *Combat between Tancredi and Clorinda* (1624). His contemporaries quickly incorporated such phenomena in current...
musical vocabulary. To illustrate war they used repetition of
notes, loud tremolos, galloping rhythms, pizzicato sword-
thrusts. . . .

A train rushes past you, your heart is pounding—you are
plunged in an urgency which gives a feeling of indefinable
power—like being in the middle of a dangerous revolt that
turns gloriously your way.

After the great slaughter of 1914–1918 there is agitation:
anti-bourgeois. Dada, anti-dada, Merz. Kurt Schwitters per-
forms his Ursonate—pure sound beyond language. Fiumus bô
wi lâi xia̫ Ua, pîjìfî hante E7 [7]. Meanwhile, in Berlin, Stefan
Wolpe broadcasts several phonographs playing simultaneously.

A new art of sound produced by electricity, noise and revolt,
a thousand interlockings and a thousand interactions—not
the conventional image of the marvel Electricity.

I long for instruments obedient to my thought and whim, with
their contribution of a whole new world of unsuspected sounds,
which will lend themselves to the exigencies of my inner rhythm.

—Edgard Varèse, 1917

The first specialized studios: in 1948 the Club d’Essai in Paris;
in 1951 the Studio für Elektronische Musik, Cologne; also in
1951 New York’s Columbia-Princeton Electronic Music Center;
in 1953 the Studio di Fonologia de la Radio Audizioni Italiane,
Milan; in 1956 Philips Research Laboratories, in the Dutch city
of Eindhoven; and in 1957 Polish Radio’s Studio Eksperymental-
ne, Warsaw; in 1957–1958 the studio Apelac, Brussels [8].

The sources! First traces of a music that could only be rev-
olutionary—created ex nihilo, from nothing, electronic music
had to be entirely invented.

Re-reading—considering the history of music retrospec-
tively, we can see what was not done and try other directions,
other lines of reading or comprehension.

A short-lived pavilion and our memory of it. At the Brus-
seles Universal Exposition of 1958 the Philips company’s pavi-
ilion was designed by Le Corbusier and Xenakis, with music by
Varèse and Xenakis (Poème Électronique and Concert PH). Kon-
rad Boehmer tells us that as a teenager he was fascinated to
discover a radically new music in radically new architecture.

The beauty of electronic glitches—Oval, Kim Cascone: the
new aesthetic of failure [9].

Tracks, turntables and breakthrough.

Categories have dissolved and been reformed in a totally
new way. Already in the mid-1990s, musicians like Markus Popp
preferred to speak of creation process (via computer interface)
where the concept of musical treatment and/or treatment of
images becomes obsolete—unnecessary since it becomes some-
thing else.

The beauty of electronic glitches—Oval, Kim Cascone: the
new aesthetic of failure [10].

With Oval, the process is the product. The delicate beauty that
results is pretty much a happy accident.

—Markus Popp

Tipe music—Wladimir Usachovsky & Otto Luening, 1953—
collaboration for two [11].

Noise—a random signal of known statistical properties of
amplitude, distribution, and spectral density.

Life today has become much noisier. After the Industrial
Revolution machines were louder—in earlier times violence
and noise came mainly from battles, the sounds of war. Some

noises have become general: car engines, unlike pianos or vi-
olas, are not designed to produce sound: their noise is due to
what they are made of.

Channels. Most ordinary music today is electronic, either
computer-produced or modified and recomposed with elec-
tronic elements. Besides music proper, we have the electronic
sound of jingles, ring tones on mobile phones. We are sur-
rounded by sound, but today it’s sound created and transmit-
ted by man-made channels. We are losing the sounds of
rushing streams, slow-moving rivers, leafy branches blown in
changing winds: the time has gone when man was bathed in
nature’s unconscious [12].

Sound waves are expressed as a series of analog sine waves.
The combination and blend of these waves gives sounds their
individual characteristics, making them pleasant or unpleas-
ant to listen to.

Utopia is the best form of government, but here as elsewhere
music is dangerous, inflaming passions, creating disorder. Ddict
Thomas More.

Travelers—the good word, the nomadic holy noise across
the British countryside. . . .

Ritournelle—we are all emotionally tied to music—to the ri-
tournell, the lullaby that wrapped us children in the darkness [15].

Sentimental music, which connects us to people we once
loved, the music of childhood.

Many contemporary musicians have no audience. They
cling to the slender network that supports them, their end-of-the-
road coteries. They meet up at one or two festivals, like deca-
dent aesthetes, without fresh hope or energy. No radio station
plays their music, they are ignored by press and television. So
there’s another lot shunned by consumer society.

There are some masters ruling over an empire ignored by
everyone.

Taking aporia to the limit. Beware of experts who would
ditch reality completely to prove that their view is the right
one. Many of them keep going back to their self-imposed sys-
tems and see no future for music defined in their own terms.
Arguing solely on the basis of logical development and direct
transmission, they fail to see the truth because they cannot
think flexibly, rhizomatically.

Places for sound. The first half of the 20th century saw a
radical change in “serious” music, in what for simplicity’s sake
let’s call the Bach-Mozart-Beethoven axis. In the second half
of the century, the technology of music turned everything every-
thing upside down.

Paradox and prehistory. Inventor and radio pioneer Regi-
nald A. Fessenden became the world’s first DJ when, in 1906,
he broadcast from Brant Rock, Massachusetts, a phonographic
record of Handel’s Largo. The music must have had a hard
time getting through the background noise [14].

High-intensity sound is disagreeable, then painful; above
120 dB, it exceeds the pain threshold, causing irreversible
damage, bursting eardrums.

Switchover. Music relating to the emotions comes to an end
and gives way to something less determinate.

Perception of time—music as architectural filter.

It was on entering an anechoic chamber that John Cage found
silence to be impossible—one’s own body is still audible. Within
a few moments, the thundering noise becomes unbearable.

The sound of blood in the arteries—hypertension, buzzing.

Only death would be silent—because the corpse cannot
hear? Yet death throes seem noisy; strangulation is said to
sound like a knife-grinder’s wheel.

Non-theatrical. How avant-garde music was listened to in
Germany: Revox on the table, no stage and no rise in the seat-
ing (to see what?). The audience took their seats, and the (usu-
ally) white neon tube lights stayed on throughout the concert.

World tour by Christian Fennesz, Jim O’Rourke and Peter
Rehberg: three laptops on a table [15].

Definition of creation. Pottery has often been seen as one of
the first creations—there is something indeterminate, clay,
and there is an object (everyday or ritual). Like God, from a
rib. Song comes from the mouth. . . .

Thunderous beauty of torrents; from further away, a murring
between the rocks.

White noise is a sound that contains every frequency within
the range of human hearing (generally from 20 Hz to 20 kHz)
equal amounts.

Sound literature. Cut-ups—voice on magnetic tape, Wil-
liam Burroughs in 1959, rue Gît-le-Cœur, Paris [16].

To go beyond art as a separate activity.

The Corpus Callosum is a central region of tissue in the human
brain, which passes “messages” between the two hemispheres.

—Michael Snow [17]

For the thinker, music belongs with science. No break between
science and art. From now on, the musician should treat philoso-
phy and architecture as one, combine structure and form.

—Iannis Xenakis [18]

New unified fields. Donald Judd’s specific object—but in this
case for sound.

Tones or resonances. Something from Greek civilization—the
whispering reeds of Midas . . . the confused murmur, the moan
that is “almost nothing.” The rumble of thunder. The echo.

Noise is often present on analog tape or low-fidelity digital
sound recordings. The standard audio cassette includes a layer
of hiss on every recording.

Finding a wider audience for 30-year-old music becomes,
curiously enough, an act of resistance to the ultra-capitalist sys-

Allgemeine Musikalische Zeitung, 1870

The revolution of his “silent piece” and the hub-
bub of his Rovaart Mix, in 1965. Pieces for radio: Speech for 5 ra-
dios and a newspaper reader, in 1955 [22].

Radio in the night, on an endless road. Between two fre-

Every barrel organ of Berlin playing together under the Retz cir-
cus big top, each using a different cylinder, could not produce
music worse than this.

—from Allgemeine Musikalische Zeitung’s review of the
first performance of Wagner’s Meistersingers, 1870

Ancient life was all silence. In the 19th century, with the in-
vention of the machine, noise was born. Today, noise triumphs
and reigns supreme over the sensibilities of men.

—Luigi Russolo, 1913

In March 1913 Luigi Russolo published his manifesto The
Art of Noise. He and Ugo Piatti then built a set of Intonarumori
or Noise Intoners, spectacular machines designed to create
and modulate sounds/noises, thereby anticipating the sound

Experiments that would lead to the bruitistes. In April 1914, at
Milan’s Teatro Dal Verme, Russolo conducted the first futur-

References

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2. Pauline Oliveros, A Little Noise in the System (Mog System, 1966) in Anthology of


5. Jean-Wes Bosseur, Le sonore et le visuel (Sound and the Visual Arts) (Paris: Dis
Voir, 1992).

6. Baroque Organ Music from the Church of San Martín de Añuelo, Ursina Morette
CD 11331 (1997).

7. Kurt Schwitters, Ursonate (1922–1932) (performed in 1932 at Süddeutsche
Rundfunk, Sub Rosa SR190 (1999).

8. Gerald Bennett in Musiques Électroniques (Geneva: Contrechamps, Editions
l’Age d’Homme, 1989).

Michael Koenig and Rainer Riehn, Institut für Sonologie 1959–1969, Sub Rosa


12. These ideas are developed, with others, by Léo Kupper in the film Le Plaisir du Regret—Considérations sur la composition à l’époque de la musique électronique, directed by Guy Marc Hinant and Dominique Lohlé, Observatoire de la Musique Electronique, 2000–2002.


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Guy-Marc Hinant writes fragmented fictions and notes on aesthetics (some of his texts have been published by Editions de l’Heure). He has made documentary films, including The Garden Is Full of Metal (1996), Éléments d’un Merzbau oublié (1999), and, with Dominique Lohlé, The Pleasure of Regrets—a Portrait of Léo Kupper (2003). He also has written scripts with the artist Dominique Goblet. Hinant is the curator of An Anthology of Noise and Electronic Music CD Series and manages the Sub Rosa label. He is also a correspondent for the international review Lunapark in the Lowlands in Belgium.