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READINGS IN MODERN MUSIC

**Edited by Christoph Cox
and Daniel Warner**

The Art of Noises: Futurist Manifesto

LUIGI RUSSOLO

Luigi Russolo (1885–1947) was a prominent painter in the Italian Futurist movement. Yet he is best known for *The Art of Noises*, among the most important and influential texts in 20th century musical aesthetics. Written in 1913 as a letter to his friend, the Futurist composer Francesco Balilla Pratella, this manifesto sketches Russolo's radical alternative to the classical musical tradition. Drawing inspiration from the urban and industrial soundscape, Russolo argues that traditional orchestral instruments and composition are no longer capable of capturing the spirit of modern life, with its energy, speed, and noise. A year after composing this letter, Russolo introduced his *intonarumori* ("noise instruments") in a series of concerts held in London.

None of Russolo's music remains; and the *intonarumori* were destroyed in a fire during World War II. Yet, since the War, Russolo's manifesto has become increasingly important, inspiring a host of musicians and composers, among them *musique concrète* pioneers Pierre Schaeffer and Pierre Henri, 1980s dance-pop outfit The Art of Noise, "industrial" bands such as Einstürzende Neubauten and Test Dept., turntablist DJ Spooky, and sound artist Francisco López.

[...] Ancient life was all silence. In the 19th Century, with the invention of machines, Noise was born. Today, Noise is triumphant and reigns sovereign over the sensibility of men. Through many centuries life unfolded silently, or at least quietly. The loudest of noises that interrupted this silence was neither intense, nor prolonged, nor varied. After all, if we overlook the exceptional movements of the earth's crust, hurricanes, storms, avalanches, and waterfalls, nature is silent.

In this scarcity of noises, the first sounds that men were able to draw from a pierced reed or a taut string were stupefying, something new and wonderful. Among primitive peoples, sound was attributed to the gods. It was considered

sacred and reserved for priests, who used it to enrich their rites with mystery. Thus was born the idea of sound as something in itself, as different from and independent of life. And from it resulted music, a fantastic world superimposed on the real one, an inviolable and sacred world. The Greeks greatly restricted the field of music. Their musical theory, mathematically systematized by Pythagoras, admitted only a few consonant intervals. Thus, they knew nothing of harmony, which was impossible.

The Middle Ages, with the developments and modifications of the Greek tetra-chord system, with Gregorian chant and popular songs, enriched the musical art. But they continued to regard sound *in its unfolding in time*, a narrow concept that lasted several centuries, and which we find again in the very complicated polyphony of the Flemish contrapuntalists. The chord did not exist. The development of the various parts was not subordinated to the chord that these parts produced in their totality. The conception of these parts, finally, was horizontal not vertical. The desire, the search, and the taste for the simultaneous union of different sounds, that is, for the chord (the complete sound) was manifested gradually, moving from the consonant triad to the consistent and complicated dissonances that characterize contemporary music. From the beginning, musical art sought out and obtained purity and sweetness of sound. Afterwards, it brought together different sounds, still preoccupying itself with caressing the ear with suave harmonies. As it grows ever more complicated today, musical art seeks out combinations more dissonant, stranger, and harsher for the ear. Thus, it comes ever closer to the *noise-sound*.

This evolution of music is comparable to the multiplication of machines, which everywhere collaborate with man. Not only in the noisy atmosphere of the great cities, but even in the country, which until yesterday was normally silent. Today, the machine has created such a variety and contention of noises that pure sound in its slowness and monotony no longer provokes emotion.

In order to excite and stir our sensibility, music has been developing toward the most complicated polyphony and toward the greatest variety of instrumental timbres and colors. It has searched out the most complex successions of dissonant chords, which have prepared in a vague way for the creation of MUSICAL NOISE. The ear of the Eighteenth Century man would not have been able to withstand the inharmonious intensity of certain chords produced by our orchestra (with three times as many performers as that of the orchestra of his time). But our ear takes pleasure in it, since it is already educated to modern life, so prodigal in different noises. Nevertheless, our ear is not satisfied and calls for ever greater acoustical emotions.

Musical sound is too limited in its variety of timbres. The most complicated orchestras can be reduced to four or five classes of instruments different in timbres of sound: bowed instruments, metal winds, wood winds, and percussion. Thus, modern music flounders within this tiny circle, vainly striving to create new varieties of timbre.

We must break out of this limited circle of sounds and conquer the infinite variety of noise-sounds.

Everyone will recognize that each sound carries with it a tangle of sensations, already well-known and exhausted, which predispose the listener to boredom, in spite of the efforts of all musical innovators. We futurists have all deeply loved and enjoyed the harmonies of the great masters. Beethoven and Wagner have stirred

our nerves and hearts for many years. Now we have had enough of them, and we delight much more in combining in our thoughts the noises of trams, of automobile engines, of carriages and brawling crowds, than in hearing again the "Eroica" or the "Pastorale."

We cannot see the enormous apparatus of forces that the modern orchestra represents without feeling the most profound disillusionment before its paltry acoustical results. Do you know of a more ridiculous sight than that of twenty men striving to redouble the mewling of a violin? Naturally, that statement will make the musicomaniacs scream—and perhaps revive the sleepy atmosphere of the concert halls. Let us go together, like futurists, into one of these hospitals for anemic sounds. There—the first beat brings to your ear the weariness of something heard before, and makes you anticipate the boredom of the beat that follows. So let us drink in, from beat to beat, these few qualities of obvious tedium, always waiting for that extraordinary sensation that never comes. Meanwhile, there is in progress a repugnant medley of monotonous impressions and of the cretinous religious emotion of the Buddha-like listeners, drunk with repeating for the thousandth time their more or less acquired and snobbish ecstasy. Away! Let us leave, since we cannot for long restrain ourselves from the desire to create finally a new musical reality by generously handing out some resounding slaps and stamping with both feet on violins, pianos, contrabasses, and organs. Let us go!

It cannot be objected that noise is only loud and disagreeable to the ear. It seems to me useless to enumerate all the subtle and delicate noises that produce pleasing sensations.

To be convinced of the surprising variety of noises, one need only think of the rumbling of thunder, the whistling of the wind, the roaring of a waterfall, the gurgling of a brook, the rustling of leaves, the trotting of a horse into the distance, the rattling jolt of a cart on the road, and of the full, solemn, and white breath of a city at night. Think of all the noises made by wild and domestic animals, and of all those that a man can make, without either speaking or singing.

Let us cross a large modern capital with our ears more sensitive than our eyes. We will delight in distinguishing the eddying of water, of air or gas in metal pipes, the muttering of motors that breathe and pulse with an indisputable animality, the throbbing of valves, the bustle of pistons, the shrieks of mechanical saws, the starting of trams on the tracks, the cracking of whips, the flapping of awnings and flags. We will amuse ourselves by orchestrating together in our imagination the din of rolling shop shutters, the varied hubbub of train stations, iron works, thread mills, printing presses, electrical plants, and subways [...]

We want to give pitches to these diverse noises, regulating them harmonically and rhythmically. Giving pitch to noises does not mean depriving them of all irregular movements and vibrations of time and intensity but rather assigning a degree or pitch to the strongest and most prominent of these vibrations. Noise differs from sound, in fact, only to the extent that the vibrations that produce it are confused and irregular. Every noise has a pitch, some even a chord, which predominates among the whole of its irregular vibrations. Now, from this predominant characteristic pitch derives the practical possibility of assigning pitches to the noise as a whole. That is, there may be imparted to a given noise not only a single pitch but even a variety of pitches without sacrificing its character, by which I mean the timbre that distinguishes it. Thus, some noises obtained through a rotary motion can

offer an entire chromatic scale ascending or descending, if the speed of the motion is increased or decreased.

Every manifestation of life is accompanied by noise. Noise is thus familiar to our ear and has the power of immediately recalling life itself. Sound, estranged from life, always musical, something in itself, an occasional not a necessary element, has become for our ear what for the eye is a too familiar sight. Noise instead, arriving confused and irregular from the irregular confusion of life, is never revealed to us entirely and always holds innumerable surprises. We are certain, then, that by selecting, coordinating, and controlling all the noises, we will enrich mankind with a new and unsuspected pleasure of the senses. Although the characteristic of noise is that of reminding us brutally of life, the *Art of Noises should not limit itself to an imitative reproduction*. It will achieve its greatest emotional power in acoustical enjoyment itself, which the inspiration of the artist will know how to draw from the combining of noises.

Here are the 6 families of noises of the futurist orchestra that we will soon realize mechanically:

1. Roars, Thunderings, Explosions, Hissing roars, Bangs, Booms
2. Whistling, Hissing, Puffing
3. Whispers, Murmurs, Mumbling, Muttering, Gurgling
4. Screeching, Creaking, Rustling, Humming, Crackling, Rubbing
5. Noises obtained by beating on metals, woods, skins, stones, pottery, etc.
6. Voices of animals and people, Shouts, Screams, Shrieks, Wails, Hoots, Howls, Death rattles, Sobs

In this list we have included the most characteristic of the fundamental noises. The others are only associations and combinations of these.

The rhythmic motions of a noise are infinite. There always exists, as with a pitch, a predominant rhythm, but around this there can be heard numerous other, secondary rhythms.

Conclusions

1. Futurist composers should continue to enlarge and enrich the field of sound. This responds to a need of our sensibility. In fact, we notice in the talented composers of today a tendency toward the most complicated dissonances. Moving ever farther from pure sound, they have almost attained the *noise-sound*. This need and this tendency can be satisfied only with the addition and the substitution of noises for sounds.

2. Futurist musicians should substitute for the limited variety of timbres that the orchestra possesses today the infinite variety of timbres in noises, reproduced with appropriate mechanisms.

3. The sensibility of musicians, being freed from traditional and facile rhythms, must find in noise the means of expanding and renewing itself, given that every noise offers a union of the most diverse rhythms, in addition to that which predominates.

4. Every noise having in its irregular vibrations a predominant general pitch, a sufficiently extended variety of tones, semitones, and quartertones is easily

attained in the construction of the instruments that imitate it. This variety of pitches will not deprive a single noise of the characteristics of its timbre but will only increase its tessitura or extension.

5. The practical difficulties involved in the construction of these instruments are not serious. Once the mechanical principle that produces a noise has been found, its pitch can be changed through the application of the same general laws of acoustics. It can be achieved, for example, through the decreasing or increasing of speed, if the instrument has a rotary motion. If the instrument does not have a rotary motion, it can be achieved through differences of size or tension in the sounding parts.

6. It will not be through a succession of noises imitative of life but through a fantastic association of the different timbres and rhythms that the new orchestra will obtain the most complex and novel emotions of sound. Thus, every instrument will have to offer the possibility of changing pitches and will need a more or less extended range.

7. The variety of noises is infinite. If today, having perhaps a thousand different machines, we are able to distinguish a thousand different noises, tomorrow, with the multiplication of new machines, we will be able to distinguish ten, twenty, or thirty thousand different noises, not simply by imitation but by combining according to our fancy.

8. Therefore, we invite talented and audacious young musicians to observe all noises attentively, to understand the different rhythms that compose them, their principal pitch, and those which are secondary. Then, comparing the various timbres of noises to the timbres of sounds, they will be convinced that the first are much more numerous than the second. This will give them not only the understanding of but also the passion and the taste for noises. Our multiplied sensibility, having been conquered by futurist eyes, will finally have some futurist ears. Thus, the motors and machines of our industrial cities can one day be given pitches, so that every workshop will become an intoxicating orchestra of noises [...]

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Sound, Noise, Varèse, Boulez

MORTON FELDMAN

Composer Morton Feldman (1926–1987) began his career in the 1950s as a member of the "New York School" of artists and composers. Indeed, Feldman's music emulated the canvases of Abstract Expressionist painters such as Mark Rothko, Franz Kline, and Philip Guston, who were among his close friends. Against the great modern systematizers, Pierre Boulez and Karlheinz Stockhausen, Feldman championed an intuitive musical abstraction that he felt was exemplified by the music of Edgard Varèse. During his own lifetime, Feldman worked in the shadow of his mentor, John Cage. But, over the past decade, Feldman's work has become increasingly influential within and beyond the boundaries of contemporary classical music. Here, Feldman offers an eloquent description of the power and fascination of noise.

[...] If one hears what one composes—by that I mean not just paper music—how can one not be seduced by the sensuality of the musical sound? It is unfortunate that when this sensuality is pursued we find that the world of music is not round, and that there do exist demonic vastnesses when this world leaves off.

Noise is something else. It does not travel on these distant seas of experience. It bores like granite into granite. It is physical, very exciting, and when organized it can have the impact and grandeur of Beethoven.

The struggle is between this sensuousness which is elegance and the newer, easier to arrive at, excitement.

You have no idea how academic music is, even the most sublime. What is calculated is for me academic. Chance is the most academic procedure yet arrived at, for it defines itself as a technique immediately. And, believe me, the throw of the dice may be exciting to the player, but never to the croupier.

Is noise actually so easy to arrive at? Noise is a word of which the aural image is all too evasive. On the one hand sound is comprehensible in that it evokes a sentiment, though the sentiment itself may be incomprehensible and far-reaching. But it is noise that we really understand. It is only noise which we secretly want, because the greatest truth usually lies behind the greatest resistance.