

# MODERN MUSIC

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## MAN, MUSIC AND THE MACHINE

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THE term "mechanical music," which we so freely use, upon examination appears quite inexact; strictly speaking, there is no such thing as mechanical music. Whatever improvements have been made in broadcasting or recording instruments, whatever esthetic and social importance they may have in our epoch, music is, and always will be, essentially spiritual, even though it is an art and involves a certain organization of the world of sound. This world of sound is itself a product of human activity, for the only natural reality is noise, from which by a series of eliminations and fixations man has extracted sound. All those splendid mechanisms, like Theremin's or Martenot's apparatus, which produce new timbres and open vast horizons to music, are in a certain sense negligible, since they are not animated by the thought and will of man. Mechanical music is therefore only a myth. The development we have seen in the last twenty-five years, which continues steadily and is destined profoundly to influence musical art, consists in gradually replacing the direct relation between performer and auditor—the only one possible up to the twentieth century—by an indirect and somewhat remote relation. The "mechanization of music" actually means the increase in the number of intermediaries between producer of music and listener which alone has made possible the development of devices like the phonograph and the radio.

The human body is itself a musical instrument; the structure of the mouth and the larynx makes it possible for man to emit

musical sounds. It is quite probable that music at first was vocal, but almost as early, man had recourse to special instruments: strings plucked or rubbed, columns of air or resonant surfaces which vibrated at the breath or touch of man. All these musical instruments were directly dependent upon the human being, were a projection of his body, increasing his faculties, permitting him to express himself more completely. A violin, a flute, a drum are musical "tools." The bow replaces the fingers as the hammer replaces the fist. Makers of musical instruments have all tried to render them as obedient as possible, in other words, to make them capable of faithfully expressing the human personality, with the voice—the ideal instrument—as a model. Perfection for a musical device means "being human." In this respect the bowed instruments are incontestably the finest. Their sound moves us particularly because they are in intimate contact with the human body and respond to its slightest impulses. The power of the performer over the bow and the strings is complete. This is also true, to a lesser degree, of the various wind instruments.

With the introduction of the keyboard instruments, organ, piano, harpsichord, the situation changes; the performer no longer is in direct contact with the string or column of air which vibrates. The pressure of his fingers has to be transmitted by means of a more or less complicated mechanism; the sound has escaped the immediate control of man. Thus the problem was presented to the manufacturers of making the intermediary mechanism, e.g., levers, hammers, etc., sufficiently flexible to keep the vibrating body (string or air column) under the guidance of man, and to permit the latter to express himself as he does, say, on the violin. This problem has been partly solved: the modern piano is very sensitive and reacts as the performer wishes; beneath the fingers of certain artists it has even succeeded in "singing," which for any instrument is the sign that it has reached perfection. Of course there are cases where "singing" is not desired, where one seeks for other effects, sometimes of a quite opposite character; but the fact that a phrase played on the piano can attain a sonority almost as "human," almost as full of feeling as the same phrase sung, and that it can express the personality of the artist (Giesecking's playing, for example, sounds

different from Harold Bauer's), shows that the piano is what every musical instrument or tool should be: an artificial voice.

Until the invention of the phonograph and the radio the auditor always had contact with a living being who acted upon them not only by means of the music, but also by his presence. It is certain that for the concert-public, the two images, auditory and visual, became confused while mutually reinforcing each other; to "hear" a certain celebrated virtuoso necessarily meant to "see" him play. The phonograph and the radio have broken this link between sight and sound, a link which had been considered indissoluble for all time. But in a dozen years or so phonographic and radiophonic appliances will probably all be equipped with television, permitting one to see a concert as well as to hear it. Thus the visual contact between the performers and the public will be re-established. But as regards the auditory side, the problem seems to be infinitely more complex.



The essential idea in so-called mechanical music is to prolong the life of sound and to stretch its action into infinity: the phonograph which records sound makes it possible to vanquish time; the radio which transmits over immense distances triumphs over space. Sound is no longer the ephemeral thing, limited to a definite place, that we have known up to now; it no longer knows death, and it is endowed with ubiquity. This tremendous result, now an accepted commonplace, has been obtained only by giving sound a certain independence, separating it, so to speak, from man who has produced it by means of one or another of his artificial organs: violin, flute, piano. What must one do to preserve a ripe fruit? It has to be picked from the tree; left there, it will quickly rot. A pianist gives a concert; the work he performs is dissipated into the air as soon as it is produced, and reaches only the few hundred in the audience before him. It does however reach them directly; they hear it exactly as it comes from the instrument obedient to the artist's fingers. But thanks to machinery, this same work may be heard a year later by hundreds of thousands of people. To achieve this miracle the sounds must undergo a series of preparations and transforma-



tions, pass through the record, which is a sound-accumulator, and through the radio.\* Thanks to these intermediaries, millions participate today in the musical activity of the great artistic centers. Musical culture has spread throughout the world. The Aleutian Islands can hear Toscanini and Furtwängler as well as New York or Berlin. The most cultivated musical art is not reserved for the élite; it reaches the masses, and the direct effect of an artist in a concert-hall is nothing compared to the indirect effect on millions of phonograph and radio owners. The day may come when public concerts will have completely disappeared, when the immediate contact between the performer and the auditors will be but a memory and when artists will play no more save before the microphone.

But here a question rises, does this immense extension in space of the musical work today modify its character? In other words, in separating the sound from the man who produced it and giving it an independence which triumphs over space and time, have we not altered it? Does a radio-listener who gets the broadcast of the Beethoven *Concerto* played by Kreisler or the man who puts the Kreisler record on his phonograph hear the same thing as those present at the violinist's concert?

There is no doubt as to the reply: modern devices already reproduce sound with practically all the exactness desired, and in the majority of cases give the illusion of reality. In a few years the final difficulties will be overcome and the most elusive voices and instruments be captured. Then the radio or record audience will be exactly as well placed as the man who goes to concerts. It seems only a question of technical progress. But on closer examination the problem is seen to be less simple. We must consider two important factors: the first psychological and the second esthetic.

It must be admitted that for one music-lover who frequents concert-halls, there are hundreds who listen to recorded and broadcast music almost exclusively. The latter have no contact with the musical world save by mechanical means. We are assured that these means modify the sound very little if at all and soon will attain absolute perfection. But let us for the moment stay with the present. Even though there are already radios and

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\* It must be borne in mind, in reading this discussion, that in France (where Mr. De Schloezer lives) broadcasters in the majority of cases, use phonograph records for their radio presentations.



phonographs which reproduce living sound without perceptible alteration, they are costly and consequently less frequently found among the public than the medium-priced apparatus which gives entire satisfaction to millions of listeners. And it is here that we encounter the psychological factor of which I spoke a moment ago: habit.

What is a record? After all, it is preserved music. We are today in the position of people living entirely on preserved food: canned fruit, meat, vegetables, etc. These preserves are excellent and apparently replace the natural products perfectly; but in reality we are incapable of judging because through habit our taste has been modified; it has become adapted to this new food. In saying this I do not mean to underrate recorded music; I simply wonder if our opinions are not invalidated by habit. I hear it said all about me that records give the illusion of reality; I say it myself freely. But one must not forget that we all come less and less in contact with this reality. As long as the phonograph distorted the different registers and timbres *unequally*, it was quite easy to note these distortions, but if, as one is led to suppose, all the sounds are now *distorted in the same degree*, it is much more difficult to judge them. Living in a musical atmosphere saturated with recorded and broadcast sounds, we cannot affirm with complete certitude that they actually reproduce the living music the artist produces. The overwhelming majority of those who find pleasure in listening to a certain virtuoso on the phonograph or over the radio have never been present at one of his concerts; and as for those who have been in direct contact with him, they base their judgment upon recollections only too infrequent and brief. Several weeks after attending Toscanini's concerts in Paris, I heard the scherzo from *A Midsummer Night's Dream* as recorded under his direction; these records seemed admirably faithful to reality, but I could easily have been mistaken; the first perceptions upon which to base a comparison had already been dulled in my memory. A profound study of these conditions and illusions is a task for the specialists alone.

The likelihood of distortion being admitted, distortion which habit and technical progress have rendered imperceptible, one

should then ask how it acts, what is its essential characteristic. This characteristic seems to me to be *depersonalization*.

The instruments interposed between the artist and the auditors today, if they modify the music they record and broadcast, do so by giving it a certain sonority, uniform and "sui generis." Let us imagine that all the music written for the most diverse instruments could no longer be played save on the piano and that we heard only pianists to the exclusion of violinists, flutists, etc. The piano would obviously lend to all musical literature its peculiar character. This is about what happens in the case of the microphone, whose effect tends in some way to level music, to minimize the variations which exist in different executions.

On the phonograph and over the radio, the playing of Heifetz certainly sounds quite unlike that of Kreisler, and yet the recording instrument has imperceptibly brought the two performances closer together. By spreading its own varnish of sound over them it has made them less unlike each other than they really are. If we compare various recordings of the same work it is easy to say that they have something in common and reveal, so to speak, an *air de famille*, the effect of having been submitted to the same treatment. This depersonalization of music is perhaps not an evil; perhaps, thanks to it, we shall end by escaping the well-known predominance of the virtuoso who uses the composer only to exploit his own personality. The triumph of so-called mechanical music may ultimately fix a certain standard interpretation for each important work. I am not speaking only of the present. I am indicating an influence which is all the more powerful in our musical life because it is generally unperceived, the ear having little by little become habituated to this new state of affairs. We imagine that mechanical devices serve only to democratize music by giving us thousands of copies of one performance, by flashing it across the entire earth. We do not think they will in any way modify our feeling, our taste, or our musical thought. But that is a serious error.



Moreover we must consider another factor which though insignificant today will certainly be more important tomorrow. The

phonograph manufacturers and radio broadcasters give us an "illusion of reality" and make us forget that we are not hearing the artist directly but through the intervention of complicated mechanisms. Thanks to habit we are prepared to concede that recorded and broadcast sounds are absolutely identical with those produced by man playing on instruments. But, on the other hand, among musicians today there is a tendency to utilize the peculiarities of mechanized music. Instead of trying to eliminate these characteristics, is it not better, they ask, to attempt to exploit them and thus enlarge the field of music? Can we compose special music for the phonograph and the radio and thus create a new art? As long as we consider the record only a "photograph," we compare it to the original and condemn it when it varies therefrom. But even these differences can acquire an esthetic value. We are beginning to see everywhere, and particularly in Germany and Austria, the signs of a movement for an independent phonographic and radio art. It is no longer a question of giving the illusion of reality but of writing for the phonograph and radio as one writes for the piano or violin.

In connection with these experiments, which have already yielded such interesting results, there has been talk of the "dehumanization" of music. The term seems quite inexact; it arises from the idea that phonographic art is an enlargement of human action on sound-producing apparatus and consists in treating these mechanisms as sound-generating instruments. A work written especially for the radio is no less "human" than a piece written with due regard to the possibilities of the piano.

The technical progress which has made it possible to augment the number of intermediaries between the artist and the auditors and thus to enlarge ad infinitum the circle of the latter may eventually place the mechanical intermediaries again under the direct control of man. Today the microphone is nothing more than a copying apparatus; its value is only quantitative. Perhaps tomorrow it will enrich our lives by giving us a new means of expression.