

## Biomusicological considerations

I do not want to defend the point of view of a sociologist, which I am not, nor exactly the point of view of a composer. I am aware that this point of view is going to discomfort the sociologists and alarm the composers and I believe that twenty minutes will not be enough to justify it. A large majority considers music -- like language - as a pure socio-cultural fact, but I discovered that such an opinion neglects an important number of facts. I will try to summarise these now.

The first series of facts belongs to the field of comparative ethnology, therefore I am going to tell you some stories - unjustly considered to be very old. Everybody knows the story of Orpheus and Eurydice. But on the Marques Islands they tell the story of Kena who goes to the dead to liberate his wife Tefio. He too has to cross a narrow mountain passage where the rocks knock against each other all the time. He finally succeeds in taking along the spirit of Tefio in a basket, but he may only open the basket after some 10 days. Nevertheless he opens it the same evening and thus loses the soul of his beloved forever. All mythical motives are practically identical to the story of Orpheus: the bursted doors of death, the crossing of the Symplegades, the infringed prohibition. And this is only one out of several examples. Let us stick to the great musical myths: the story of Arion in Greece for instance is comparable to the Japanese myth of Kiyotsuné, who also sings his farewell-song standing on the bow of a ship and then jumps into the sea. Finally, all images linking the sound and the stone, as in the myths of Memnon, Alcatheos, Amphion, Linos, Orpheus, and those of the Dogon and of all peoples that practise the lithophone belong to the same system of thinking according to which the sonorous energy can be degraded, imprisoned in the stone and according to which the stone can in certain ritual conditions liberate the same energy.

It is very unlikely that there be a historical explanation for these resemblances, either through descent or through a common origin. The followers of Orpheus did not send missionaries to Polynesia and the Japanese myths are not historically linked to Greece. The probable symbolic meaning of these universal myths - namely that the musical impulse is liberating for those who want to bring the journey of life to a successful end (that is the meaning of the myths of Arion and Dionysos and others with their initiation dive) - appears to be the spontaneous and permanent product of the functioning of human thought: it leads to identical images in different places, at all moments, without contacts

between the cultural systems. Everything takes place as if the central nervous system of man naturally (and let's have the nerve to use this taboo word) produces a certain number of strong images, the specific coherence of which has been demonstrated by anthropology. A synthesis still has to be made between the theory of Jung and the theory of Levi-Strauss, it still has to be proved that the archetypes of the "collective unconscious" and the quasi-musical structures of the myth refer to a same body of laws, but this is more the task of the biologist than of the musician. Henceforth we have to admit - in the light of comparative mythology - that the myths (and especially the musical myths, which have been collected by Marius Schneider) translate a natural thought, however shocking this hypothesis might be for the dominating ideology. The compatibility of structural anthropology and psycho-analysis of myth is really difficult because we confound too quickly mythic thought and mythology, and because at this moment we do not have a general theory on the transformational relationship between different signifying systems. But I believe we have to make a clear distinction between mythic thought - in the sense of the mythogenic source - and mythological systems. The first is a spontaneous fact, the others are arrangements depending on a given culture. Culture is therefore not something which is radically opposed to nature, but something that embroiders specific variations on this universal *cantus firmus* of the archetypal images.

These proposals undoubtedly run counter to the most recommended thinking processes of today. The reductionist movement of consciousness which traces out, in the haziness of phenomena, some avenues defined by the concepts and by the language, made us consider the mythic thought in these disengaged and therefore somewhat reassuring perspectives. Nevertheless these claims of History to drive out the myth are not to be taken as high and mighty. We may not forget that the myth has interpreted Reason in beforehand, that it somehow predicts and feels Reason and that it denounces its possible misuses in the catastrophes of Icarus and Phaeton; the rational thought is put in images by means of the mythic thought just as the mythic thought is made conceptual by the rational thought. The myth appears to cover all activities of the spirit just as the music covers the language. The ambivalence, the ambiguity, the polysemy of the mythic images are closer to music than to any language. The latter culminates in the scientific terminology: the term *limit*; as its etymology shows, is a boundary and a limit, as well as a point of contact. The music acts in the haziness, in the ambivalence, but not in any kind of ambivalence, essentially in the ambivalence of the archetypes. We immediately have to remark that the greater part of the ill-luck of contemporary music seems to be due to the obliteration of this statute by the abuse of the rational discourse.

Before I come back to this question I would like to deal with a second group of

facts that contradict, I believe, certain claims of musical sociology. If my hypothesis of the universality of certain mental images is valid, this would mean that we have to discover a certain universality of characters, forms, structures in music. The comparative ethnomusicology should thus confirm what the comparative mythology anticipates. And we indeed observe that this is becoming true.

It is not so much the universal importance of heptaphonic and pentaphonic scales, of tetrachords, of "chant tuilé", of sexual symbolic of the flute and the drum, etc, that strike me as being relevant for a spontaneous musical thought, but rather the universality of the imitative practice. The cries of the pygmy or of the Amazonian hunters, the whistles to look for contact used by the people clearing the forests in the Philippines or elsewhere give us an image of a sonorous organisation that is linked to a social group and at the same time totally natural, if we understand by this word a general internal (linked to biological imperatives) and external (linked to the sonorous environment) determinism.

We find no rupture going from the efficient imitation of the hunter with his bird-whistle to the "sympathetic" sonorous magic propitiation rite; we also find (a) continuity (going) from the ritual music to the "pure" music. This means we can follow a non-historical path going from a really primitive music to "art" music. It is the path of the sonorous model: from the most realistic imitation to the most encoded formalization, the musical act universally undergoes the influence of the acoustics of the biotope on the musical practices.

The wiping out of the model, the movement of abstraction that leads to a pseudo-language, to a code of relative values, and to a model in a mathematic or physical sense, is in our civilisation being exalted as the only attitude that can be called musical, even if on the one hand emerge the archetypes of the cry, the spasm, the echo, etc., and on the other hand the use of sensible referents (rhythm of horses, sounds of elements, etc.). All this happens as if the sonorous reality only periodically comes back out of the oppression, with as the most spectacular come-back, some thirty years ago, the explosion of the "musique concrète", at a moment when serialism desperately tried to recommend the idea of music being pure combination of conventional signs. So, mythology and comparative ethno-musicology tend to prove that there are musical universals transgressing the cultural diversities and that these universals are linked to a spontaneous working of the human mind. It remains to be determined whether this function is specific. I admit, following Bergson and especially Roger Caillois, that instinct and mythology are profoundly analogous ; why not, then, look for examples of this analogy in a world that is ruled by the instinct, namely the world of the animals? Can we, disregarding the new brand of anthropocentrism

that isolates men from all other beings, discover signs of an even bigger musical universality, even beyond the human cultural phenomena? The answer has since long been given empirically by way of the great number of recognised relations between the acoustic biotope and music (for instance in ancient Greece, in China, on the Solomon isles, etc...). But this answer can only now be confirmed and accurately described thanks to the new methods of analysis that give access to sonorous morphologies that previously exceeded the capacities of the human hearing and memory. Thanks to the recorders, the bathygraphs and sonographs, I have been able to make numerous analyses of the singing of birds, amphibians, mammalia. These analyses not only show close structural convergence between the sonorous forms, but also between the sonorous attitudes and functions of animal and man.

Structurally speaking we can say that there is not a single musical human characteristic we do not find with some animal or other. In contradiction with the opinion of a lot of people, all structures of order can be found with animals. Because I do not have a lot of time I will limit myself to a few examples: the troglodyte *Catherpes mexicanus* completes a gamut of 25 degrees descending by intervals lying between  $\frac{1}{3}$  and  $\frac{1}{2}$  tone from  $g_4$  to  $a_2$  in 4 seconds &, while making a progressive rallentando (from 20 to 4 sounds per second) and a crescendo. At 2000 kilometres distance, two creatures of the akalat-thrush, one in Gabon, the other in Ghana, use exactly the same scale:  $G_2 + \frac{1}{4}$  tone,  $A_2 +$  one or two commas and  $D_2 +$  one comma. The reed-warbler on the Cabo Verde Islands, carefully examined by Mrs Françoise Dowsett-Lemaire, uses, interpreted into its personal rhythmic schemes, elements borrowed from 30 to 40 other species, among which some it found in African migrations, and the signals of which are totally ignored by other Belgian birds. The more a bird imitates, the more it freely invents, liberating itself from the stereotypes. This means we never find two creatures of one species with the same song, nor twice the same song by the same creature. Consequently the imitation is exactly contrary to banality because the most imitative songs with regard to their material are also the most diversified and the most unexpected ones. This, I believe, is an important point that has to be taken into consideration by the composer.

The gratuity which is typical of music and goes beyond the necessities of the intra- and inter-specific communication - becomes clear in the collective practices. We know that more than a third of all tropical bird-species sing in duet. We have less knowledge - because the discovery is more recent - of the organised trios, quartets, quintets in the animal world, for instance by birds, amphibians, wolves, gibbons, etc. I have transcribed a quartet of four African thrushes *Trichostoma moloneyanum* in which four males play with differentiated signals according to a perfectly determined order. The world of the animals exploits not only all

means men have to play with sounds, but it appears to be as interested in it. The social songs of reed-warblers can be compared with the practice of musical clubs. The song also depends on the mood of the participants - the better the mood the more beautiful the song and it can also be the victim of absenteeism problems.

I will now deal with the possible consequences of these facts, some of which might seem to be not directly linked to the theme of this symposium. If a certain natural determinism has a universal import beyond the cultural conventions, and even beyond the limits of the species - especially in the sonorous field -, it seems necessary to ask ourselves some questions. It is certainly not the kind of questions that worry the majority of contemporary intellectuals, but I believe questions that have to be put as a result of the recent discoveries and that I consider to be particularly decisive:

The first series of questions is the following: if a natural determinism is acknowledged, does this mean that the composer has to change his attitude or can he continue as if nothing happened and stick to the rather narrow circle of problems of some sociocultural province? Does he have to undergo the universals of the music as an annoying fatality, a liability of which he has to get rid by refusing it? Does the music have to accept this archaic or at least unhistorical statute of archetypal thought, or has it to persist to be a language?

Thus I think of a second series of questions and hypotheses. If there has been a separation between the musical creation and the public (but Varèse pointed out rightly that there can only be a separation if there has been a marriage), could it be explained by the fact that the purely cultural development - which is illustrated by serialism and which leads to a suppression of the archetypal imagery in favour of less romantic and essentially more intellectual constructions - does no longer correspond to its deeper need of this imagery, and does it mean that it can no longer find this imagery but in the works of the past? Or is it possible that the great composers of the XXth century are precisely those that have been able to integrate these images into a personal code which had to grant them overall coherence? If people like Varèse and Xenakis succeeded in melting the extreme point of consciousness together with the extreme depth of impulses, they have yet not always met the public approval of their talents.

Finally, a last series of questions. If in the present situation of weariness of the principal aesthetical projects, the awakening of the consciousness for the musical universals seems to represent a new possibility to make progress, doesn't this entail a potential danger of a new normalisation, of a possible neo-jdanovism that will try to measure music according to its degree of "naturalness", as some time ago people tried to measure it according to its degree of "popularity"? This would, of course, be an even worse risk than the cultural ghetto that sterilised a large part of contemporary music. I believe that it is as harmful to exalt nature at

the detriment of the cultural artificiality as to do the contrary. In reality we have to get out of this dilemma, by concluding that the cultural phenomena are already outlined in the world of the animals and that reciprocally the natural postulations remain very active in the musical thought. If the production of music is in the first place a necessary biological function (although we do not yet know what it is necessary for), the task of the composer in society might be one of gathering the divergent faculties of the mind. While the scientific activity aims at the progress of the rational consciousness, the musical universality restores to unity the mind that has become unbalanced because of this excessive specialisation. Thus the musical creation fulfils part of the functions traditionally accomplished by the religions. The resistance of the public to contemporary music seems to be closely linked to the official triumph of the scientific ideology and of its deceiving fragmentation of knowledge. The authentic musical creation (when its "contents of truth" are important, as Adorno would say) throws too much light on deliberately condemned subjects and traces horizons that are too remote to be welcomed wholeheartedly.

The already old defeat of serial music - which has always wanted to join this false scientific dignity - and the more recent defeat of the political utopias - that only wanted to consider the minor communication function of the music - clearly show that the music cannot run away from its central task of making a synthesis between the natural archetypes and the invention of concepts, without losing the only advantage it has on the theorems and the slogans: namely that music can restore men to the universe instead of tying them up in strictly historical pretensions.

Music is not simply a language, even in the wide sense of a semiotic system, is therefore not only an instrument for communication - even if it is metalinguistical - but a practice which is as vital and externally unjustifiable as play. Music is not what significant systems, such as structural anthropology, sociology and ethnology could appreciate. It is as primal as the desire and as the mythic thought which makes sense only when revived, when reactualized, not when analysed. The place of the composer in society can therefore not be the place of a researcher - a decoction of the scientist ideal - nor that of a prophet, abusive ersatz of the political man. His naïveté is different: he may observe in a loud voice that the king is nude; he doesn't give any answers but he joyfully transforms the most agonising questions; and he especially shows that man has not totally broken with the instinct, as is often thought, and that he can seek his liberation with and not always against nature.

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