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STOCHASTIC JEUX

Abstract: This article shows the similarities between Claude Debussy's and Iannis Xenakis' philosophy of music and work, in particular the former's Jeux and the latter's Metastasis and the stochastic works succeeding it, which seem to proceed parallel (with no personal contact) to what is perceived as the evolution of 20th century Western music. Those two composers observed the dominant (German) tradition as outsiders, and negated some of its elements, considered as constant or natural by "traditional" innovators (i.e. serialists): the linearity of musical texture, its form and rhythm.

Key words: Claude Debussy, Iannis Xenakis, *Jeux*, *Metastasis*, masses of sound, serialism.

Distant views

Taking a distant view has opened up new channels in scientific thinking. Scientists have moved their observation posts outside the earth or the planetary system to realize that there is no such thing as absolute space and time; those are human concepts, not derived directly from physical observations and experiments. Time is not linear, because time does not exist independently of space. Time and space are a unity; there is no absolute past, present or future, because two events might be conceived as simultaneous or successive, in any order, according to different conceptual conventions.

The distant view of outsiders has overturned musicological thought recently, opening up revitalizing channels and helping insiders to realize science's limitations and possibilities.

Distance permits us to realize the much-too-limited conventions of 20th century western music's projected view. The view is of a German tree trunk, branching off into all major innovative (and less innovative) trends of the century.

Nationalising the West

Nationalisation of Western music history is an understandable outcome of cultural leadership (always coupled with political hegemony)¹. German music's generally acknowledged qualitative superiority in the 19th century,

Taruskin's recent Oxford History of Western Music (2005) is a rather belated nationalisation of Western music history by the United States.

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resulted in its domination during the 20th century. This was felt not only in the composers' works but also most importantly (for this article) in establishing evaluation principles (on the technique and form of a work, and on the sociological and psychological aspects of creative motivation and music perception) even on music that had escaped its influence, to whatever degree. Major innovative creations were still dominated by the German trunk. Interpreted as its offshoots, the full extent of their meaning and the real measure of their diverging from tradition has been missed.

In this text I point to certain similarities between Claude Debussy's and Iannis Xenakis's philosophy of music (and work), which seem to proceed in parallel (with no personal contact) towards what is perceived as the evolution of 20th century Western music. Observing tradition as outsiders, they negated some of its elemental concepts, considered as constant or natural by "traditional" innovators, and in accordance with 20th century scientific advances.

Their revolutions, although acknowledged, could not be rationally explained, as happened with revolutions in the mainstream (German) tradition.

Those works that reflect their common attitude to music are Debussy's *Jeux* in particular, and Xenakis's *Metastasis* with the stochastic works succeeding it.

One could see their music as the 20th century evolution of the French style, although most French composers are not entirely and really representative of it. Many who did react to German dominance were attracted to Stravinsky's objectivity, and – in offended Adorno's words – his "double social character", combining the physiognomy of the clown with that "of an upper class civil servant." "Serious" French music was legitimately flirting with non-serious music, and "serious" French musicians were relieved from having to pour out their sentiments in art. Sentiments are for life and love; no need for substitutes. Substituting German musical models and leaders by Russian newcomers was a shield from such interactions.

Debussy got also "rid of the gold of Rhine", but did not replace it by other models and he certainly did not acquire "a clown's physiognomy". His connection with the diminishing of music's seriousness is better expressed as a spite for pretence, and his connection with objectivity is

² Adorno 1973:172.

From a letter to Ernest Chausson. The sentence wittily concludes with: "which is a little troubling regarding the gold, but gives me pleasure, regarding the Rhine." See, Debussy 2005:167.

In a letter to Louis Laloy he expressed his wish that the French be freed from "the lying grandiloquence of Gluck, the cheap metaphysics of Wagner, the false mysticism of the old Belgian angel [César Franck]". See Debussy 2005:969.

demonstrated in the themes (and titles) of his works; in his interest in the observation of nature. Taruskin points to "the absence of people, or rather of personalities, among Debussy's subjects. One finds representations a-plenty in his music of the sea, of the wind, of gardens in the rain and balconies in the moonlight, but of humans, few in number unless viewed en masse and from afar [...] Debussy's art was not an art of empathy." ⁵

Debussy was neither a follower nor a member of any "school", and his comments, even though not personified, criticise French composers' surrender to trends. "By a curious irony" he says, "we are afraid of a victory over ourselves, and it seems preferable to be quietly merged in the public or to imitate our friend, which amounts to the same thing".⁶

Viewing the 20th century from the 21st

What emerges today as important in Debussy's music are not parallel chords, or even non functional harmony, whole tone scales and gamelan influenced idiophones in orchestration. It is a new motivation for the creation of music, resulting in a new concept of musical time and form, a tendency towards the abrogation of linear textures in music and a new mode of listening.⁷

He "increasingly refined his ideas in a series of revolutionary works that appeared in the early years of the century. [...] They reached their most advanced form in the music for the ballet *Jeux* (1913), which most of Debussy's contemporaries considered an incomprehensible puzzle but which has greatly interested composers in recent years." ⁸

Debussy was fully aware of his schismatic ideas, developed since the 1890s, and of the impossibility of being understood and appreciated by his contemporaries. "...I work things that will not be understood but by little children of the 20th century;" he wrote in 1895, expressing the wise simplicity of music he was aiming at: true imitation of nature, through freedom¹⁰, the oblivion of art¹¹, and a distant view.¹²

6 Debussy 1962:30–31.

As seen by Morgan, "The dynamic thrust toward points of climactic emphasis, typical of German music of the time, is replaced by a sort of floating balance among subtly interconnected musical entities, giving rise to wavelike motions characterized by extremely fine gradations of color, pacing, and intensity." (Morgan 1991:48).

8 Morgan 1991:50.

⁹ In a letter to Pierre Louÿs. See, Debussy 2005:242.

⁵ Taruskin 2005:4/48.

[&]quot;Discipline must be sought in freedom, and not within the formulas of an outworn philosophy only fit for the feeble-minded." See, Debussy 1962:8.

A measure of the originality of Debussy's ideas and the fact of his avowed inability to "follow" his music is given in the following statement by Adorno: "Anyone who has been schooled in German and Austrian music and who has listened to Debussy will be familiar with the experience of frustrated expectation," he says, speaking about what he calls "timelessness" in Debussy's music. He continues with the following description, exhibiting a sensibility nurtured by his "schooling":

Throughout any one of his compositions, the naive ear listens tensely, asking whether "it is coming"; everything appears to be a prelude, the overture to musical fulfilment, to the organic resolution of the Abgesang – which, however, never arrives. The ear must be reeducated if it is to understand Debussy correctly, seeking not a process of obstruction and release, but perceiving a juxtaposition of colors and surfaces such as are to be found in painting. The succession simply expounds what is simultaneous for sensory perception: this is the way the eye wanders over the canvas. [...] Everything else proceeds out of the harmonic thought peculiar to Impressionism: the suspended treatment of form - a treatment which actually excludes "development"; the predominance of a type of character piece, which originated in the salon – it acquires its dominance at the expense of actual symphonic structure even in lengthier compositions; the absence of counterpoint; and finally a superior coloration, allotted to harmonic complexes. There is no "end"; the composition ceases as does the picture, upon which the viewer turns his back. In Debussy this tendency became gradually intensified up to the second volume of the *Preludes* and the ballet Jeux; [...] His radicalism in this regard cost several of his most masterly compositions their popularity.

Trying to reveal Debussy's creational intentions by the use of traditional methods of analysis and nomenclature is purposeless, not reflecting the composer's intention: "In all compositions I endeavor to fathom the diverse impulses inspiring them and their inner life. Is not this much more interesting than the game of pulling them to pieces, like curious watches [...]?" ¹⁴

His music was far more revolutionary than the evolution of chromaticism to serial methods. He does away with far more basic concepts than tonality: He aborts the concept of lines composed of successive

[&]quot;I try to forget music because it obscures my perception of what I do not know or shall only know to-morrow. Why cling to something one knows too well?" See, Debussy 1962:5.

¹² "I dislike specialists. Specialization is for me the narrowing of my universe..." See, Debussy 1962:5.

¹³ Adorno 1973:188.

¹⁴ Debussy 1962:5.

points, of themes truncated and recomposed, of dramatic or narrative or simply directional forms. I am not certain whether his low popularity, mentioned by Adorno, is measured by the audiences' spontaneous reactions, or by the analysts' limited resources to describe his music. (Maybe those are mutually conditioned.)

Each moment in his music is important for what it is; it is not a step to a goal. Consequently, memory plays no role in conceiving musical time. Traditionally schooled writers have described his treatment of time as "stationary", alluding to the absence of harmonic clashes and tonal direction. If time's undeniable flow is conceived as "stationary" or "timeless" as seen by Adorno, one is impelled to wonder to what degree traditional music has narrowed the concept of time, to what degree art has blurred our vision of nature.

Debussy strove to forget art in order to understand nature. "Musicians listen only to the music written by cunning hands, never to that which is in nature's script...." he said, and addressing composers: "You paw the ground because you only know music and submit to strange and barbarous laws." ¹⁶

He was able to jump out of the channel that tradition and education had predestined him to follow, to distance himself, and observe from afar those straits that other composers conceived as the entire firmament of music.

It is true that oblivion of tradition and training has been stated as the aim of various composers from the early 20th century. Even Schoenberg himself, the carrier of German tradition into the 20th century, saw in his early richly expressive works tradition's coercion over his free will, and strove, thereafter, to express the instincts less affected by upbringing. But functional harmony was so deeply rooted in German tradition that it might be that it was in fact instilled in the instinct. Thus understood, the emancipation of dissonance and the ensuing abrogation of the conflicting forces in harmony deracinated inherent musical qualities. In contrast, functional harmony was not deeply rooted in France. This may be seen as Debussy's privilege. It permitted him to see the connection of functional harmony with musical form as an exaggerated convention, a connection that drove the composers' creative thought along preset paths. "I think," he wrote to Ernest Chausson, "that we have [been] blundered, always by the same R. Wagner, and that too often we dream

¹⁶ Debussy 1962:7.

Morgan 1991:46.

¹⁷ Taruskin 2005:4/306.

of the frame before we have the picture and some times the richness of the former makes us overlook the indigence of the idea!" ¹⁸

Shortcomings or advantages?

When Xenakis arrived in Paris on 11 November 1947, all hisconnections to the past were cut, with no prospects for the future. Music composition had been an inner dream since his teens, but at 25 he was musically illiterate in comparison with the education acquired in any Parisian music conservatory. Besides a diploma in engineering, he was self-taught in Greek (especially Platonic) philosophy and arts. ¹⁹

In less than ten years, and despite, or because of, his failure to follow systematic courses in harmony²⁰, counterpoint and the rest, Xenakis was at the top of avant-garde music in France and abroad, although apart from the mainstream of avant-garde French musicians, who had achieved the unachievable: to *lead* avant-garde music by reviving and *following* twelve-tone serialism, i.e., German tradition.²¹

The composers of the mainstream were much better trained in music, young and self-assured. Xenakis could not catch up. His shortcomings turned to his advantages after his 1951 meeting with Messiaen, who remembers:

I understood immediately that he was not someone like all the others. I put to him a heap of questions. He impressed me physically first of all; he is very impressive, isn't it, because he bears on his face glorious wounds. His intelligence is superior. I learnt he was Greek, which is already a reference; I learnt he was an architect working with Le Corbusier, which is another reference; and, finally, he told me he had studied special mathematics.

Xenakis asked Messiaen if he could study harmony and counterpoint from the beginning:

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¹⁸ Debussy 2005:167.

All biographical information on Xenakis in this article is from Matossian 1981.

Matossian mentions notebooks of harmony exercises from Xenakis's early years in Paris, corrected by teachers such as Honegger, in whose handwriting numerous "parallels" are marked (Matossian 1981: 40–41). But Xenakis had to toil not only to avoid parallels, but, primarily, to learn to dislike them. He did not go through this loop.

The post war revival of twelve-tone serialism in Paris is attributed credited to René Leibowitz, who taught twelve-tone music in Paris and published the most influential Schönberg et son école (1948) and Introduction à la musique de douze sons (1949). See, Matossian 1981:54, Taruskin 2005:5/15, and elsewhere. See also, Sabine Meine, "Leibowitz, René", The New Grove II, where Leibowitz's claim of having studied with Schoenberg and Webern, is disputed.

I did something horrible, extraordinary, that I would not do with others, because I think that they must study harmony, that they must learn how to listen and write counterpoint; but he was a man so much out of the ordinary! I told him: "No, you are already thirty years old, you have the chance to be a Greek to have studied mathematics, to have done architecture. Take profit of all that and apply them in your music." I think that finally this is what he does.²²

Indeed, this is what he did. Unable to enter the realms of music specialists, Xenakis stood apart and alone. Whereas Debussy *achieved* oblivion of traditional training, Xenakis was privileged with its absence. Nothing was self-evident; there were no canons to be followed. He observed musical trends from a distance and thought about basic and general problems; he "fathomed" as Debussy put it, "the diverse impulses inspiring" a work. And his theoretical thinking permitted him to conceive those impulses in music as well as in architecture. It is not always clear in Xenakis's biographies that he had no training in architecture either, and that his renowned works in this field²³ were also achieved thanks to his ablity to grasp the essential and fundamental abstraction of his projects and problems.²⁴

In that respect, the Platonic theory of "ideas" or "forms"²⁵ had greatly influenced his creativity. "Everything began to converge," he says speaking about his years with Le Corbusier, "I posed also to myself musical and philosophical questions [...] My God, I think it was natural; it was the influence of Greek civilization, in particular Platonic civilization". ²⁶

Philosophy in the Ancient Greek meaning of the word was the primal force of his creativity. He explains:

Philosophy, but in what sense? In the sense of the philosophical impulse which pushes us toward truth, revelation, research, general quest, interrogation, and harsh systematic criticism, not only in specialized fields but in all possible domains. This leads us to an ensemble of knowledge, which should be active, in the sense of "doing". Not passive knowledge but knowledge that is translated into creative acts. I repeat, in all possible domains."²⁷

What in his formation was considered to be multi-specialization in the West was the result of his study of Greek writers who, like their

His better known architectural works are the monastery of La Tourette (1952–1955) and the Philips pavillon in the Brussels World Exposition (1958).

²² Matossian 1981:58.

²⁴ See, Matossian 1981:65–67.

For a clear explanation of this theory, see, Bertrand Russel. *A history of Western philosophy*. London: Simon and Schuster, 1945:121.

²⁶ Matossian 1981:67, 65.

²⁷ Xenakis 1985:8.

western heirs up to the Renaissance, had not yet invented specialized knowledge.²⁸

His much-projected use of mathematics in composition should be understood in the connection existing in Greek thinking between music with mathematics, and mathematics with philosophy. Mathematics is the most intelligible reasoning in abstract, therefore, eternal and exact truth.

Nonetheless, Xenakis's formation, seen as multi-specialization or, by many specialists, as non-specialization, was provocative.²⁹

Pierre Boulez, Xenakis's antagonist in Paris, a leader of the avant-garde composers, and the director of IRCAM³⁰, also considered science indispensable for the advancement of music, but proposed a collaboration of specialists. He was obviously criticising Xenakis when he wrote: "The effort will either be collective or it will not be at all. No individual, however gifted, could produce a solution to all the problems posed by the present evolution of musical expression".³¹

Furthermore, Xenakis was irritating as an outsider. He was ignorant of Western music's evolutionary phases, the problems of minute transformations and all the searches carried out for their solutions, arrogantly cutting the knot instead of carefully untying it. His solutions were indigestible. Yet, it was the outsider's view that permitted him to foresee what the dead-end integral serialism was leading to.

His early innovations may be seen today as an advancement of Debussy's revolutionary concepts and creations in most respects.

He aimed at nature's pure imitation, discarding musical imitations of nature. This, as well as the absence of empathy in his music is best revealed in his own, often quoted, description of what inspired *Metastasis*.

Metastasis, that starting point of my life as a composer, was inspired not by music but rather by impressions gained during the Nazi occupation of Greece. The Germans tried to take Greek workers to the Third Reich – and we staged huge demonstrations against this and managed to prevent it. I listened to the sound of the masses marching towards the centre of Athens, the shouting of slogans and

Therefore Greek thinkers from Pythagoras to Plato and Aristotle are today studied for their contributions in music, philosophy, geometry and mathematics, cosmogony, religion, politics, sociology, psychology... whereas, Aristoxenus, Ptolemy, Euclid and other writers on music, had also written on various other subjects.

Specialisation has protected him though from severe attacks and criticism, since musicologists, mathematicians, physicians, philosophers, educationalists etc. were not much concerned with a composer's writings on their specialty!

³⁰ Institut de Recherche et de Coordination Acoustique/Musique

³¹ Born 1995:1.

then, when they came upon Nazi tanks, the intermittent shooting of the machine guns, the chaos. I shall never forget the transformation of the regular, rhythmic noise of a hundred thousand people into some fantastic disorder. [...] I would never have thought that one day all that would surface again and become music: *Metastasis*. I composed it in 1953-4 and called it starting point because that was when I introduced into music the notion of mass. [...] Almost everybody in the orchestra is a soloist. I used complete divisi in the strings, which play large masses pizzicato and glissando. 32

A dramatic personal experience is drained of all empathy, to be observed as a natural phenomenon.

Even Hermann Scherchen, one of the first to recognize the originality of his music and to work for its propagation, found his work excessively "dry". Xenakis's response was that, to him, his music was "the most sincere, most efficient, most concise, and therefore, most elegant way to express his ideas".³³

As is well known, Xenakis imitated those complex mass events studying the kinetic gas theory and its laws of probability. In his mass sound events, traditional linear concept of pitch succession, of musical form, as well as of musical time is definitely absent. Rhythm has no periodicity, since time is here felt without memory's symmetrical constructions. Creative thought is not exposed; it is not to be followed by the listener, since the work's form is not dramatic, narrative, or simply "directional"; this music can be perceived like the rich motion of a tree's leafage; there are internal groups, moving in numerous directions with varied velocities, continuously changing in their synthesis, in the rich and sensitive gradations of their volume, density, texture and color, the vitality of their inner mobility. There are vivid masses in continuous sensitive transformation of their internal life. The contour of the masses (what would be conceived as traditional musical form) is of secondary importance.

Traditionally developped musicality is not appropriate for the appreciation of this music. James Harley has remarked that the first world performance of Xenakis' *Pithoprakta* by Scherchen in Buenos Aires in 1958 was much better received than his *Achorripsis* in Xenakis's controversial Paris debut in 1959; whereupon, he comments: "This music, which sounds so alien from the concerns of mainstream music, both traditional and modern, seemed to appeal to listeners in more distant

³² Varga 1996:52.

³³ Matossian 1981:98.

lands, no doubt in part because of its removal from the cultural colonialism of Western Europe". 34

For the above reasons, Xenakis's music is not very appealing to analysts and writers on music. Given the fact that creative thought is not exposed in the composition, and that the composer's calculations are done with the help of mathematics, the description of his scores (that, to my knowledge, James Harley is the first ever to have undertaken) at times inevitably sticks to traditional and contemporary music's appreciation conventions, no matter how conscious the writer is of Xenakis's isolated position in contemporary music.

Classes and clashes

On the contrary, the play with arithmetic, rather than mathematics, of integral serialism attracted large numbers of analysts. Detecting the series gives fluent multi-paged analyses. As pointed out by Taruskin, "the value of technical analysis as a separate musical activity [...] experienced an unprecedented boom. [...] Along with the growth of integral serialism, then, there grew up a new musicological specialization, that of music analyst...".³⁵

The role of those specialists' (who gradually replaced music critics in the evaluation of new music) in establishing a classification of serious composers was paramount. In alliance with avant-garde composers themselves, they converted serialism to academically established avant-gardism³⁶, a state funded revolution³⁷, bureaucratically supported experimentalism.³⁸

35 Taruskin 2005:5/37.

Boulez wrote: "Since the Viennese discoveries, any musician who has not experienced – I do not say understood, but truly experienced – the necessity of the dodecaphonic language is USELESS. For his entire work brings him up short of the time." See, Taruskin 2005;5/19.

"Boulez's institution receives 15 million francs a year, as well as another 6–7 million francs to subsidize the concerts of the Ensemble InterContemporain", said Xenakis in Varga 1996:122.

Taruskin quotes the following description, by Henze, of Darmstadt composition classes: "Boulez who saw himself as the supreme authority, was sitting at the piano, flanked by Maderna and myself – we must have looked like reluctant assistant judges at a trial, as young composers brought their piece forward for opinion. Anything that wasn't Webernian, he brusquely dismissed. [...] Thanks to the initiative of Boulez and Stockhausen this [Webern's style] had become institutionalized as official musical thinking, whose maxims the body of lesser mortals now had to put into practice with religious devotion [...] Just imagine: it was being bureaucratically determined how people should compose [...]" See, Taruskin 2005:5/22.

³⁴ Harley 2004:23.

Some of those phenomena were brought about by Cold War politics. It is no longer stated as a suspicion, but as a certainty, that one of the goals of the International Summer Courses for New Music in Darmstadt, where serialism was taught with "religious devotion"³⁹, was "to propagate American political and cultural values...".⁴⁰

Boulez's ambition was, it is assumed, to show that the trajectory of 20th century Western music was leading to ... himself, as the central figure of Darmstadt and, later, the director of IRCAM.⁴¹

In IRCAM a canon of 20th century composers' classification was established and propagated (through concerts, lessons, publications and recordings), the influence of which on (or simply the similarity with) most 20th century literature on music cannot be denied. In a statistical list constructed by Georgina Born to reflect IRCAM's canon, Debussy, belonging to the "classics", and Xenakis, belonging to the "leaders", are in the lowest rank.⁴²

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See footnote 39, above.

Taruskin 2005:5/20–21. On this subject, and in order to understand the connection of serialists to American culture and ideology, see: Frances Stonor Saunders, Who paid the piper? The CIA and the Cultural Cold War, London: Granta Books,1999; and: Amy C. Beal, "Negociating Cultural Allies: American Music in Darmstadt 1946–1956" Journal of the American Musicological Society, volume 53, (Spring 2000), pp.105-139.

On IRCAM, see Born 1995. Boulez taught in Darmstadt in 1954–1956 and 1960–1965. He was director of IRCAM from 1977 to 1992.

This list is an approximate analysis of the distribution of composers according to the number of their pieces played in the *Passage du Vingtième Siècle*, a series of new music concerts given in Paris through 1977. The classes mentioned are as follows: <u>Classics</u>: Schoenberg 16, Webern 15, Berg 9, Bartok 4, Stravinsky 4, Ives 3, Debussy 2, Varèse 2. <u>Leaders</u>: Berio 9, Ligeti 9, Stockhausen 8, Boulez 7, Carter 6, Nono 4, Messiaen 3, Xenakis 3, Cage 3. See Born 1995:173.

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Кети Роману

СТОХАСТИЧКЕ *ИГРЕ* (*Резиме*)

Чланак указује на сличности у филозофији музике и стваралаштва Клода Дебисија и Јаниса Ксенакиса (посебно између дела *Jeux* првог и композиција *Metastasis* и других стохастичких дела потоњег композитора), које као да се одвијају паралелно са оним што се сматра главним током еволуције западне музике XX века.

Ова двојица композитора посматрали су доминантну (немачку) традицију са дистанце и критички се односили према појединим њеним елементима (на пр. линеарност музичке текстуре, форме и ритма) које су "традиционални" иноватори (тј. серијалисти) сматрали константним или природним.

Тежећи већој блискости са природом, Дебиси и Ксенакис су осмислили звучне равни и звучне масе у којима је проток времена независан од меморијских симетричних конструкција, у којима ритам није периодичан, форма није ни наративна нити усмерена, а рационална концепција није примарна.

Нихове идеје биле су у складу са напретком науке, музике и других уметности у XX веку, али нису наилазиле на потпуно одобравање код њима савремених аналитичара и писаца о музици. Све те околности, заједно са културном политиком "хладног рата" после Другог светског рата и њеним наметањем серијализма као вредности "новог света", утицале су да у канону музике XX века Дебиси и Ксенакис не добију места која заслужују.

(превела Јелена Михајловић-Марковић)

UDC 781.1:78.037/.038(4-15)"19" 78.071.1 Debussy/Xenakis