

# The Xenakian Fold

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In Makis Solomos, Anastasia Georgaki, Giorgos Zervos (ed.), *Definitive Proceedings of the "International Symposium Iannis Xenakis" (Athens, May 2005)*.

Paper first published in A. Georgaki, M. Solomos (ed.), *International Symposium Iannis Xenakis. Conference Proceedings*, Athens, May 2005, p. 67-71. This paper was selected for the *Definitive Proceedings* by the scientific committee of the symposium: Anne-Sylvie Barthel-Calvet (France), Agostino Di Scipio (Italy), Anastasia Georgaki (Greece), Benoît Gibson (Portugal), James Harley (Canada), Peter Hoffmann (Germany), Miha Iliescu (France), Sharon Kanach (France), Makis Solomos (France), Ronald Squibbs (USA), Giorgos Zervos (Greece)

## ABSTRACT

The music of Xenakis challenges traditional categories and presuppositions of music aesthetics. This paper focuses on the nature of a certain subjectivism in Xenakis' music. Despite its seemingly 'objective' nature, it is argued that this music still reflects aspects of the *humanum*. However, due to their resistance to metaphysical subject-object schemes of thought, these traces cannot be understood as long as they are approached from the viewpoint of aesthetics. An alternative approach is suggested using elements from the music philosophies of Adorno, Deleuze and Nancy, notably the figure of the 'fold'. This figure, which appears in Xenakis on a variety of levels, is used to re-arrange and synthesize the various Xenakian gestures described by Solomos. With reference to recent analyses by Nancy, it is shown how these gestures may be understood to refer to a certain conception of the soul (*psychè*). The musical gestures, it is contended, suggest that in Xenakis, the *humanum* returns according to this psychology. In the final section, the concept of the musical soul is shown to be related to recent theories about structurally embedded forms of listening (*écoute*).

## 1. Xenakis' An-aesthetics

The task of analyzing Xenakis' music in aesthetic terms is very hard, and one that has so far not been undertaken by many philosophers. One of the reasons for this hiatus is no doubt the resistance his music offers to the categories of contemporary music aesthetics. As could be demonstrated with reference to the history of music aesthetics, many of these categories find their origin in the idea that music cannot be understood without references to subjectivity. This implies both the level of musical listening and the level of philosophical analysis - that music needs subjects in order to explain its existence, intention, meaning, emotional effect, and so on.<sup>1</sup>

Xenakis' music, however, defies the subject's central position in modern aesthetics. It rather seems to subscribe to musical modalities which do not rely on a natural or imaginary subject in order to guarantee its human content. These modalities neither subscribe to subjectivity nor to the subject's correlative ontology of objectivity. As I shall argue, despite its resistance to subject-object frames of interpretation, Xenakis' music does indeed appeal to notions of the *humanum*, and for this reason leads to questions about the kind(s) of 'subjectivity' it endorses. More precisely, the aim of this paper will be to scrutinize philosophically the processes of 'subjectivation' which structure Xenakis' aesthetics, and to suggest a number of perspectives which may be helpful for the appraisal of his works.

The resistance to modern (and humanistic) subjectivism can be - and, in the final analysis, perhaps ought to be - ascertained with reference to musical structure (which I understand to be the key problem of philosophical critique). However, it can also be found in several remarks made by the composer on the subject. For example, in his writings Xenakis actively rejects the widely cherished idea of music being essentially a vehicle for emotions and sensations.<sup>2</sup> He also challenges the view of music being a means of communication or a language, contending that '[i]dentifications of music with message, with communication, and with language are schematizations whose tendency is towards absurdities and desiccations'.<sup>3</sup> Makis Solomos observes that the picture Xenakis draws of humanity is a rather decentered one, in which humanity occupies a marginal position in a cosmos which is completely indifferent to his music. This decentered humanity hovers between the extremes of annihilation and broken self-affirmation, neither accepted by Xenakis as viable positions. In

<sup>1</sup> See the aesthetics of e.g. Jerrold Levinson, Theodor Adorno, Carl Dahlhaus and many others.

<sup>2</sup> Iannis Xenakis, *Formalized Music: Thought and Mathematics in Music* (Hillsdale, NY: Pendragon Press, 1992), 1.

<sup>3</sup> Xenakis, *Formalized Music*, 180. Cf. Makis Solomos, *Iannis Xenakis* (Mercuès: P.O. Editions, 1996), 120.

particular, he retains a notion of marginalized humanity which is more radical - but also, I believe, more promising - than the devious eradication of subjectivity in serialism.<sup>4</sup>

The immediate consequence of Xenakis' critique of musical subjectivism is his rejection of the aesthetics of objectivity. Olivier Messiaen once characterized Xenakis' music as 'a force of nature, a torrential power', referring to its seemingly objective, natural-physical and non-human qualities. Although it is adequate in some respects, such a view easily leads to a number of simplifications. Xenakis rejects the reduction of music's phenomenality to the coordinates of objectivity, preferring to point beyond this surface to 'realms that religion still occupies for some people'.<sup>5</sup> Furthermore, his work neither presents any musical objects, nor represents any objects. The metaphorical reference to natural phenomena - used by some listeners to express their doubts about the musicality of Xenakis' music - too easily ignores the fact that the 'nuages' and 'galaxies' in this music do not function as figures, representations, or illustrations of physical nature. On the other hand, the composer's assertion that, instead of representing a cloud, his music simply *is* a cloud, runs short of explaining the minimal difference between nature and creative artefacts.<sup>6</sup>

Playing down the role of both musical subjectivity and objectivity, Xenakis' music presents a significant challenge to aesthetics. It inspires a shift of attention towards processes that 'precede' this bifurcation, addressing issues that belong to the domain of musical topology.<sup>7</sup> To the extent that it oversteps the basic scheme of aesthetic reflection, this music may be regarded as an-aesthetic - a term which also highlights the non-sensible character of some of his work.<sup>8</sup> In the following section I shall step outside the framework of aesthetic speculation, and address my question about the processes of subjectivation in Xenakis from a post-metaphysical point of view, focusing in particular on the figure of the *fold*.

## 2. Capturing Forces

According to Adorno, any philosophy of contemporary music (which he prefers to call aesthetics) worthy of its name will result from a reflection of musical experience upon itself - or will even be this very reflection. It would avoid formulating static rules and external laws. Rather, it would start from within the musical experience. '[A true aesthetics] can neither be inferred from philosophy, nor can it be an empirical descriptive science of art. Its medium would be the reflection of musical experience upon itself, but in such a way that it would present itself not as an object to be described, but as a force-field to be decoded'.<sup>9</sup>

There are a number of elements which I find important in this quotation. Firstly, the fact that Adorno locates reflection within the field of music proper, in particular within the intermediate domain of 'experience'. Experience may be understood as an interface between subjective immediacy and objective externality. Secondly, the definition of musical experience as a coded 'force-field'. This definition suggests the intermediate domain ('field') of experience to be, on the one hand, an interaction between forces (which may or may not be related to tension, movement, speed, etc.) and, on the other hand, structures of semiotic codification applied to these forces. And finally, the notion that these codified forces require interpretation by themselves, i.e., that these forces are structured according to a movement of self-reflection, auto-affection, in short: that they are *folded*.<sup>10</sup>

In the context of Xenakis (whose work was largely neglected by Adorno<sup>11</sup>), this structure resonates with meaning. The words of Messiaen, quoted above, already announced a perspective on Xenakis' music which departs from the usual aesthetic *parlance*. Picturing this music in terms of a 'force of nature' emphasizes an energetic dimension which may well be present in most music (cf. Ernst Kurth), but which is radicalized in Xenakis. Solomos quotes François-Bernard Mâche, saying 'The work of Xenakis is a meditation on earthly and cosmic forces in their sensible aspect'.<sup>12</sup> But more importantly, this music seems to be about *sonic* forces, which are unleashed through a careful structuring of sonorities.

As Makis Solomos has rightly pointed out, the structure of Xenakis' music is singular in that it resists two plausible models for its interpretation.<sup>13</sup> On the one hand it resists the Adornian dialectic of form and material. The forms most frequently used by Xenakis - i.e., juxtapositions of discrete and self-contained blocks - are not forms in a morphological sense. Abstracting and universalizing the pattern of cuts that articulates them would not result in something equal to a sonata or variation form. The simultaneous dissolution of 'musical material' as an autonomous stratum is the correlative

<sup>4</sup> Solomos, *Iannis Xenakis*, 121.

<sup>5</sup> Xenakis, *Formalized Music*, 1.

<sup>6</sup> Solomos, *Iannis Xenakis*, 119.

<sup>7</sup> The term topology here refers to the philosophy of space and place found notably in the works of Lyotard, Deleuze, Derrida, Nancy and others.

<sup>8</sup> Cf. Jean-François Lyotard, 'Anima minima', in *Postmodern Fables* (Minneapolis and London: University of Minnesota Press, 1997), 235-49.

<sup>9</sup> Th. W. Adorno, 'Vers une musique informelle', in *Quasi una Fantasia: Essays on Modern Music*, trans. by Rodney Livingstone (London-New York: Verso, 1998), 321.

<sup>10</sup> The fold as such being the site of aesthetics.

<sup>11</sup> Although he does not mention the composer's name in his writings, there is no reason to believe that Adorno did not - for example through their mutual friend conductor Hermann Scherchen - know about Xenakis' work.

<sup>12</sup> Solomos, *Iannis Xenakis*, 116. My translation.

<sup>13</sup> *Ibid.*, 127-35.

effect of this collapse of form. As an alternative, Solomos proposes the notion of total construction (*construction intégrale*), which describes 'the levels of mediation in the work, of its condensation in a single level'.<sup>14</sup> Contrary to what might be expected, the resulting singular level does not lend itself to interpretation according to the second obvious model, i.e. textural music. For, as Solomos has it, in contrast to the textural music of Ligeti and others, '[Xenakis'] masses are never hollow: one can immerse oneself in them. They overflow with an inner life'.<sup>15</sup>

As I shall argue in more detail below, interior space and the idea of 'force-field' meet on the structural level in the fold. However, before broaching this discussion, I would like to make a methodological point. As many authors have noticed, the music of Xenakis is a music of intensities, forces, sonorities, structures, and gestures, rather than a music of material developed according to formal principles. In this respect, it seems obvious to search the work of Gilles Deleuze for analytical and theoretical tools. Though Deleuze is never mentioned by Xenakis (nor the other way around), his work has been a source of inspiration for composers like Gérard Grisey, Michael Jarrell, Brian Ferneyhough and Pascal Dusapin - as well as a host of electronic (techno) artists. Conversely, Deleuze's rich thinking about music has been used to analyze and theorize about the music of Cage, Bach and Messiaen, but never (or hardly ever) in respect of Xenakis.

Yet his ideas about art becoming 'cosmic' in the modern age seem highly fitting: '[t]he essential relation is no longer matters-forms (or substances-attributes); neither is it the continuous development of form and the continuous variation of matter. It is now a direct relation *material-forces*. A material is a molecularized matter, which must accordingly 'harness' forces; these forces are necessarily forces of the Cosmos. There is no longer a matter that finds its corresponding principle in the intelligibility of forms. It is now a question of elaborating a material charged with harnessing forces of a different order: the [aural] material must capture [inaudible] forces'.<sup>16</sup> *Capter des forces*: a philosophical critique of Xenakis' music, I would suggest, will have to deal with decoding the way in which this music captures (sonic, though inaudible) forces.

### 3. The Xenakian Fold

After these preliminary remarks, it is time to return to the question of 'subjectivity' in Xenakis. As my previous remarks would have made clear, my approach to this question starts from the figure of the fold (*plissement*). Why do I take this point of departure? The obvious link with Xenakis lies in the many and persistent references in his work to visual folds: curved surfaces such as the famous ones of the Philips Pavillion, the folded design of the *Diatope* and the sketches for the Parisian Cité de la Musique.<sup>17</sup> On a conceptual level the fold returns many times in Xenakis' beloved quotations from Parmenides, whose thought on the identity of thinking and being Heidegger has shown to be translatable in terms of multiple folds (*Zwiefalt*).

But most importantly - on the sonic and musical level - the fold returns in a number of Xenakian features which Makis Solomos analyzes in his book on the composer. As I will try to show now, a number of these features (though not all of them) can be thought to belong to a common logic, united in the figure of the fold. In order to demonstrate this, I will interpret Solomos' analysis in terms of Jean-Luc Nancy's philosophy of music. The latter is intimately related to the Deleuze's thinking of the fold and the Baroque.

The final aim of this discussion, answering the question of 'subjectivity' in Xenakis' music, is to reinterpret the folded structure of this music's gestures in terms of *the soul* (*anima, psychè*).

Makis Solomos ends his book on Xenakis with the intriguing suggestion that the 'Xenakian universe' may be characterized by the duality of two figures, namely *gesture* and *sonority*. Leading up to this conclusion, he highlights a number of important elements of Xenakis' work which support the notion of gesture.<sup>18</sup> Firstly, Solomos mentions the element of *intensity*, which is related to the 'obsessive gesture' found in works like *Thallein*, as well as to the intense states of ecstasy in *Nuits* and elsewhere. Secondly, the irreducibly *physical* aspect of Xenakis' music. This aspect is not limited to the division of labor inherent in the production of composed music, but forms an intrinsic part of what this music is: its bodily mode of existence. Thirdly, as Solomos contends, despite its gestures of ecstasy and liberation, Xenakis' music does not envisage transcendence. Rather, it involves a 'corporeal ecstasy' (Daniel Charles), an *immanent* transcendence, which never simply oversteps the music's level of mediation. Fourthly, there is an implication (a folding of sorts) of gesture and *construction*, which Solomos describes as the music's closed selfhood (its *Gestalt*) being folded into the musical artefact. And finally, the dualism of gesture and sonority, illustrated by the most emblematic example, the glissando. By simultaneously being an element of the musical construction and a gesture, it most typically shows both the integration and

<sup>14</sup> Ibid., 134.

<sup>15</sup> Ibid. The 'grain' from the initial title of the present paper refers to a similar production, in Xenakis, of a perforated interiority by means of granular sonorities.

<sup>16</sup> Gilles Deleuze and Félix Guattari, *A Thousand Plateaux: Capitalism and Schizophrenia*, trans. by Brian Massumi (Minneapolis-London: University of Minnesota Press, 1987), 342 (cf. *ibid.*, 329: '[...] the better to tap increasingly intense forces'), and 'Le temps musical: Une conférence de Gilles Deleuze à l'Ircam', in Peter Szendy (ed.), *Lire l'Ircam* (Editions Ircam-Centre Georges Pompidou, 1996), 154.

<sup>17</sup> Bálint András Varga, *Conversations with Iannis Xenakis* (London: Faber and Faber, 1996), 208-209.

<sup>18</sup> Solomos, *Iannis Xenakis*, 147 ff.

irreducibility of these principles. As very often, Solomos here describes the singularity of Xenakis' glissandi by pointing at the 'inner life' of this musical element. He tellingly hastens to add that this interiority, just like the grand exterior surfaces produced by the music, also belongs to the dimension of gesture (I will come back to this).<sup>19</sup>

These five Xenakian gestures, when taken together, strongly resemble the structure Jean-Luc Nancy describes in two essays, *A l'écoute* and *De l'âme*. The soul, he contends in *De l'âme*, is an *ecstatic body*. It is distinguished from mere *masse*, being the impenetrability of dead substance, by its reflexive structure. *Masse* is what Solomos describes as closed selfhood, e.g., of the pure *Gestalt*. The soul, by contrast, is the folding (*plissement*) of the body. It is that movement of extension which creates the distance the body needs to have with regard to itself, opening the reflexive space needed in order to be a self (*soi*). According to Nancy, the *anima* or *psychè* does not simply *have*, but in fact *is* this very body-supplement or supplemented body.<sup>20</sup>

The musical body-supplement involved in the music of Xenakis has a number of features which closely parallel those of the *psychè*. Firstly, given its constitutive self-difference, the *psychè* has an internal tension which gives it its typical *intensity*. Its mode of being is only given in and through *in-tension*; there is no musical *psychè* outside, or preceding, the movement of extension and folding, which produces its reflexive intension.<sup>21</sup> The soul, secondly, is neither a purely immanent (subtle) body added to the physical body (Lucretius), nor an immaterial entity 'inhabiting' this body (Platonism). Instead, it is the ecstasy of the body, i.e., that which defines a body to be a body, rather than a *masse*. Thirdly, because of the movement of self-difference, the *psychè* is a vibrant, resonant, sonorous phenomenon. Hence, it defines the musicality of the *psychè* in terms of *corps sonore*.<sup>22</sup> And finally, the *psychè's* folding is itself folded into the structure of the musical work, i.e., into the constructed artefact.<sup>23</sup>

Reading Solomos and Nancy side-by-side suggests that - although the fit can never be perfect - the Xenakian gesture may be understood in terms of the soul. The soul's *plissement* is both intensity (*intension*), body (*anima*), immanent transcendence, implied construction (cf. Simmias' account of the soul as musical instrument<sup>24</sup>), and sonority (i.e., structural *résonance*).

Starting from the logic of gesture, one may thus be led to conclude that the trace of the *humanum* in Xenakis goes by the name of *psychè*. What the experience of Xenakis' music accordingly reveals is the contemporary viability of the concept of soul as a musical figure of humanity beyond the subject-object divide of (metaphysical) aesthetics. If there were something like a singular *plissement Xenakien*, I would suggest the notion of *psychè* to be implied in its definition.

#### 4. Gesture and *l'écoute impossible*

This hypothesis about Xenakis and the soul largely depends on the notion of gesture. But what exactly is gesture? As Solomos, referring to Brian Ferneyhough, rightly points out, gesture can never be identified with construction. A glissando as a musical structure is something different from the gesture of 'glissando', which could be made without any actual glissando sounding. Gesture is something else - but what? According to Adorno and Giorgio Agamben, gesture is related to language. A gesture might either be derived from language, supporting its verbal content by means of external corporeal movements, or it might be related to the origin of language as such: e.g., gesture as '[humanity's] *speechless* dwelling in language' (Agamben).<sup>25</sup>

In contrast to these views of gesture as aspects or moments of language, I would like to propose a different reading. A gesture, I would suggest, belongs to the order of potentiality, of *dynamis*. When someone 'makes a gesture' this is usually meant to break through the present order. One may, for instance, make a gesture by acquitting someone's debts in view of this person's other interest. What a gesture effectuates is the opening of a new realm of possibilities, a new angle on an existing state of affairs. Gesture in this sense is the movement of folding common to the *psychè*: the body becoming itself through *a shift outside of itself*. Indeed, as Xenakis once said: '[t]o see reality with new eyes, that is reality, that is life itself'.<sup>26</sup>

Gesture is the unleashing of *dynamis*, that is, of new potentialities and new forces. At the same time, however, it is that which gives coherence to these potentialities and forces. Gesture in other words, is the capturing-unleashing of forces. Also, it is an angle on a state of affairs. Could it be that gesture - this figure of folding - has anything to do with listening, which, after all, is the aural correlate for what visual studies call 'point of view'? I would indeed argue that it does. François

<sup>19</sup> Ibid., 155.

<sup>20</sup> Jean-Luc Nancy, 'De l'âme', in *Corpus* (Paris: Métailié, 2000), 113.

<sup>21</sup> Nancy, 'De l'âme', 126. The notion of *intension* was developed in more musical detail by François Nicolas, in Peter Szendy (ed.), *Écoute* (Paris-Montréal: Ircam-L'Harmattan, 2000), 155-56.

<sup>22</sup> Nancy, 'De l'âme', 126.

<sup>23</sup> Jean-Luc Nancy, *À l'écoute* (Paris: Galilée, 2002), 82.

<sup>24</sup> Plato, *Phaedo*, 92a ff.

<sup>25</sup> Giorgio Agamben, *Potentialities: Collected Essays in Philosophy* (Stanford: Stanford University Press, 1999), 78. Italics original.

<sup>26</sup> Iannis Xenakis, Roberta Brown and John Rahn, 'Xenakis on Xenakis', in *Perspectives of New Music*, Vol. 25, no. 1/2 (1987), 48.

Nicolas and others have contributed a lot in recent years through their research on the structure of listening (*écoute*) as an integral part of the musical work itself. That is to say: not as a *reprise* of the good old ‘implied listener’, but as the very thing music is. As Nancy asserts, ‘musical *écoute*, that is to say, in the final analysis, music itself, which, before anything else, listens to itself (*s’écoute*)’.<sup>27</sup> Xenakis may well be the most dramatic example of this type of listening, of music *as* the very act of listening (i.e., both to itself, and in the sense of ‘listening itself *into, and out of, existence*’).

What does the *plissement Xenakien*, this singular angle (‘point of view’) of the *psychè*, listen to? Returning to Deleuze, in a gesture of conclusion, I would suggest that Xenakis’ music confronts the extreme possibility of listening. In his well-known lecture on musical time, Deleuze constructed an analogy between philosophy and music by bringing them both under the heading of impossibility. Music, he contends, deals with the capturing of inaudible forces much in the way philosophy captures unthinkable forces, and for that matter speculates on the impossible ear (*l’oreille impossible*). This impossible ear may now, in the light of the foregoing, be understood in terms of the fold. What happens? Xenakis’ music hovers between, on the one hand the closure of pure in-tensity, the *bruit de fond* (Serres) which leaves no room for perspective and surpasses *écoute*; and, on the other hand, the doubling of this noise which subjects it to meta-musical reflection, the acts of memory and the controlled *dynamis* of gesture.

The hovering of the Xenakian *écoute impossible* is between the radical unfolding of death (‘or God’, as Derrida would have it), and multiple fold (*ptychè*) of the soul (*psychè*).

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<sup>27</sup> Nancy, *À l’écoute*, 51.