**Evryali and the arborescences:**

Graphic representation as a tool for pianists in the work of Iannis Xenakis

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In music, the human brain and body can band together in a tremendous, fantastic harmony. None of the other arts requires or makes feasible such a union. During the execution, the artist can live this absolute state. He can be powerful and refined, very complex and very simple. With his spirit, he can transform into sound even a molecule of time. And accomplish all this at a time (Varga 2004, 89).

The quotation belongs to Xenakis and it comes from his conversations with Bálint András Varga. It makes quite clear what Xenakis sees in a performance: a moment of absolute contact, mental and physical, between the performer and the work. He also underlines the importance of the performer as a true active agent of this encounter.

It is quite well known that Xenakis wasn’t particularly invasive in the preparation of his works, and that he did leave great freedom to the performers. We can also say that the indications in his scores, although present and rather precise, are quite scant for the performer. It is also well known that his works are all extremely difficult to play, or even more than that: they very often touch or even surpass the impossibility. A number of Xenakis’ performers agree that the composer, never actually thought about the instrumental feasibility of his scores, while composing them.

We could assume that Xenakis was mainly interested in the conceptual than the performative aspect of the work and that as soon as the idea was realized, he preferred leaving the work to its destiny, to undertake other projects. But given the fascination towards the performer evidenced in the xenakian quotation above, I do not think that such an assumption would be particularly pertinent. Besides, one of the strongest characteristics of the xenakian music is the physical, performative dimension that it obtains when executed on stage. In addition, Xenakis very often kept a close friendship with his performers.

When he won the Beethoven price in Bonn in 1977, Xenakis made a curious experiment: he asked four pianists to perform the two same two works, Herma and Evryali, in the same concert. It was Marie-Françoise Bucquet, Claude Helffer, Georges Pludermacher and Yuji Takahashi. I don’t think that he organized such a performance as a sort of competition, comparison or a way to get the public’s vote for the best execution of these two works. I am convinced that he saw a true artistic interest in such a concert.

Was it a way to see the change of the work by introducing a dynamic, vital and living element in its realization i.e. the performer?

To see how each performer will react to the score? How his body will adjust to this outside stimulus?

There is a quotation by Friedrich Nietzsche which Xenakis often mentioned: “There are no facts, there are only interpretations”.

All these elements define the role of the performer in the act of the preparation and execution of a work: a role of creativity and responsibility. And it makes it even more interesting to look into this process and try to understand its ways of functioning in a work like Evryali.

To initiate such a reflection, we should first try to resume what it means being a classical pianist, and a classical performer in general. A classical performer builds himself like a mechanism, he puts up an inner sensitive device, which reacts to the score. The more the mechanism is refined and is able to read the signs sent out by the score, the more he will convey them with skill, sensibility, personality. It’s the same work done by an actor.

Looking at the score of Evryali, we can ask ourselves what kind of signs are sent out by such a score. To understand, we should start by trying to experience the first contact of the pianist with the score.

We have a metronomic indication, 60 for the half note, which is valid for the whole piece. In general the tempo indications in Xenakis’ work are not particularly detailed (Figure 1).

![Figure 1. Evryali, bars 1-3.](image1.png)

We have some passages with pointillist nuances, a Xenakis specialty since Eonta (Figure 2),

![Figure 2. Evryali, bars 35-38.](image2.png)

but the more often we have nuances which are quite general (Figure 3).
Moreover we principally have a deluge of notes and often entire pages with very few indications. It is quite difficult to perceive the form, the direction, or the music intentions (Figure 4). At the same time it is not necessarily true that a pianist will perceive all these elements by just looking at a score of Mozart, Beethoven, Brahms or Boulez. But still, he will certainly possess more keys of understanding, given that all these composers belong more in the evolution of pianist tradition, whereas Xenakis doesn’t.
On the other hand, in Evryali, the pianist will have the document represented on figure 5.

![Figure 5. Graphic representation of Evryali (Arsenault, 1996)](image)

It is well known that Xenakis since his very beginnings has been particularly interested in the graphic representation of sound. We know previous graphics of works such as Metastasis, Pithoprakta, or others. With the arborescences he comes up with a distillation of all these concepts to achieve the simplest one: The hand designs, and the sound follows. As he says, “the design on the paper and the imagination of picture and sound go together, it’s a question of give and take. They cannot be separated” (Varga 2004, 121).

I would also like to bring attention to the following phrase from Xenakis’ discussions with Varga: “I believe that what is lacking today is a theory about shapes. Perhaps in twenty, thirty, forty years’ time, fundamental shapes will be classified, along with their applications and expressions in different fields of observation and production” (Varga 2004, 264).

I recently have been involved in a conversation where somebody asked whether he was supposed to see a tree when listening to an arborescence. I think that it is obvious that there is nothing figurative about the xenakian shapes, which are considered by the composer in an abstract dimension, to invoke abstract sensations. Like stochastic clouds: the sensation created is this of perceiving unexpected sounds. We cannot know where and when each one of them will explode. In the arborescences, we find lines which ramify, multiply themselves, like elastics being stretched, creating tension. Evryali creates anyway a tremendous tension when performed.

Thus the question becomes, how will this inner mechanism of the pianist that I mentioned above react to design to construct a performance? It is a complex question, because we have to deal with quite abstract and delicate processes. But all the pianists who play Evryali refer to the design when speaking about the piece, considering the image to be extremely suggestive.

To explain this reaction, we could refer to the Gestalt theory, meaning an inner sensibility towards shapes as well as the capacity to make a connection between different shapes in order to identify better their nature and characteristics. We could also refer to abstract art, where the image can lead to an inner movement, touching strings of the unconscious. Or we can simply take as an alibi the artistic sensibility towards the design, therefore inexplicable and subjective. In any case, the graphic representation of Evryali creates a strong mental print, which accompanies the pianist during the learning and directs him during the execution of the piece.

Already, the design will help us make a pertinent analysis of the work. A performer needs to analyze what he plays and understand its global form, in order to create a main thread which will lead him through the piece, identify each element and understand its role and function, and thus create his interpretation like a mise-en-scène.

To have access to a music form, one has to possess the necessary keys. Every form has its keys: a sonata, a fugue, a suite piece or a serial piece... Keys such as tonality, harmony, motivic,
thematic or rhythmic elements, row, series or other elements related to each composer, genre or style.

To achieve an analysis for *Evryali*, the fastest and more effective method is just to have a glance at the design. Thus, we can easily locate all the different elements that make up the piece, and understand their function as well as the character and instrumental realization means that they will demand.

The first thing that we probably notice is the arborescence, the protagonist of the piece. Its characteristics are the polyphony and the effort to achieve continuity of the sound in the pitch-time space, which is a rather difficult task to accomplish, given that piano is by nature an instrument of non continuity of sound. Xenakis achieved it already in *Synaphai*, by melting the sound of the piano in continuous tremolos. In *Evryali*, he chooses for a mintage of time in a value of continuous semiquavers, creating in this manner a perpetual vibration and a movement able to follow the evolution of the graphic.

What is important in the execution of the arborescence is the achievement of a polyphony and the fluidity, flexibility and direction of the movement. We actually have a purely organic and living element. And the composer marks often on the arborescent passages that they should be played legato.

The second frequent element we can perceive are the passages where the movement is blocked on one register. I call this element a block. Xenakis takes up one of his old habits, he creates reservoirs of notes and repeats them stochastically. Thus, we have a percussive and rhythmic element, which makes a big contrast with the flexibility, fluidity and freedom of the arborescence. It has to be played with a short and decisive attack, a short staccato.

Additional elements that we encounter are stochastic clouds, sound waves (scattered or tight) and long silences.

After this analysis, we can easily see in the arborescences and the blocks the two principal elements of the piece. We can compare this scripture to the one of *Synaphai*, where the passages named *hard, dur* function like guides, like dams which give a direction to the liquid and simmering Brownian masse. In *Evryali*, the two elements make a contrast, they oppose each other, they take a battle position. We could make such an interpretation of the long arborescent middle passage: the blocks repeatedly try to stop the arborescence, which is born again after each strike. The blocks try to hunt it down, but it escapes, until the big explosion into a stochastic cloud.

Thus, we can define three big parts for the piece:

1. An introductive part, which contains:
   - Blocks
   - Waves (the scattered wave could also be considered as a cloud in movement)
   - A stochastic cloud
2. A second part which starts with
   - The appearance of the arborescence
   - The fight with the blocks
   - The explosion of the arborescence into a stochastic cloud
3. A third part with
   - Scattered clouds with pieces of the arborescence floating in them
   - The last exterminating and violent block
   - The arborescence letting out a big and desperate cry
   - The arborescence finally dying in the coda, the only part where we meet a tempo change.
Understanding the essence of the score is also useful to getting around its difficulties and impossibilities. It is often mentioned that several passages in Evryali are impossible to play. It is true. The majority of these passages are in the arborescent parts. The bars 80-83 are such an example (Figure 4).

If we look closer at the bar 81, we can see that the arborescence spreads out on four different registers of the keyboard. So, unless the pianist has four hands, he has to make some choices in order to achieve a result.

If we absolutely want to give priority to the polyphony, we can arpeggiate the cords (Figure 6), which would slow the tempo down and give to the piece a slightly brahmsian, romantic style...

![Figure 6. Evryali, bar 82, lower staves.](image)

Or, if we want to keep the flow of the energy and the tempo, we are obliged to remove notes, which will favor the flow of the sound mass (Figure 7).

![Figure 7. Evryali, bars 80-83.](image)
But besides the physically unplayable arborescent passages, we have other passages which present technical and intellectual difficulties, such as:

- The fast blocks of sounds (Figure 8) where, in a tight space, we have to rapidly put together fortuitous combinations of a reservoir of notes. The brain, as well as the hand, have the tendency to simply repeat the whole cord.

- The stochastic clouds, that we meet more in works like Herma or Eonta. The stochastic scripture quashes the most natural reflex of the pianist to understand mentally and physically what he has to play, which is to group the notes in phrases, articulations, rhythms, harmonies or other analytical elements.

![Figure 8. Evryali, bars 61-64.](image)

The role of the graphic is to make us understand that the most important part in performing this music is to first get the general gesture of the sound, as well as its physical impetus. After that we can look for the detail. We first achieve the piece by a setting up of consecutive physical approximations. Then, we can refine. We first create the sound mass, and then we carve it, similar to sculpture.

To conclude, there is a strong psychological, mental factor in the performance of this piece, which can be reinforced by an inner reading of the design. In that way, the pianist can have a larger, *macroscopical* view on the task to accomplish. He can thus manage his energy on longer run ups, and create blasts, which can include long passages and pass above the hundreds of notes to be played.

All these elements could make us define better the real status and role of the xenakian score. A score is a transcription on paper of an abstract idea. In the case of Xenakis, and more particularly *Evryali*, the score is a transcription of this transcription: the first print of the idea is the graphic representation, which gives us in a glance the totality of the musical intentions of the composer.
References


