

Empowering gender perspectives through music analysis. Kaija Saariaho's *Résonances* from *Quatre Instants*

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This speech dates back to the International Symposium *Voices, Spaces, Senses*, Kaija Saariaho 60th anniversary (Helsinki, 2012); the original title was *The female voice as a paradigm of musical universe. Kaija Saariaho's Résonances from Quatre Instants*. After that it has been presented at the III Giornata di Studio. La voce della musiciste - University RomaTRE (Rome, 2018).

This essay focuses on *Résonances*, the fourth part of *Quatre Instants*¹ by Kaija Saariaho - for Soprano and Pianoforte - on Amin Maalouf's verses.

My first experience with this piece was the DVD² in which Karita Mattila sings it at the Finnish National Opera accompanied by Martin Katz on the piano, in the 01/10/2006 and 08/10/2006 concerts.

I immediately fell in love with this music, since the first times I listened to *Quatre Instants* with other people - not all of them were musicians - and I gathered several opinions.

So I decided to order the score³ - including the orchestral version⁴ and, pondering on a possible analysis, I wondered if I should have begun from listening to the piece or from the score; whether I should put the listener's point of view first, and in that case refer to a specific target of listener, - one of the nine types identified⁵ by Adorno: from the expert, to the emotional listener, up to the unresponsive one - or if I should

¹ *Quatre Instants*, for Soprano and Pianoforte, was commissioned by Théâtre du Châtelet in Paris, together with London's Barbican Centre. It was performed for the first time at Théâtre du Châtelet on 02/04/2003. Performers: Karita Mattila, Soprano and Tuija Hakkila on the piano.

² Ondine, Sonopress, Germany 2010.

³ Chester Music, Great Britain

⁴ Commissioned by the Tammissari Music Festival - which also witnessed the World Premiere on 01/08/2003 - and the Tammissari Music Festival, dedicated to Karita Mattila and Conductor Jukka-Pekka Saraste, the piece includes, besides the soprano voice, a set of instruments consisting in: piccolo, flute (1 and 2), oboe (1 and 2), clarinet (1 and 2), bassoon (1 and 2), cornet (1 and 2), harp, celesta, percussions, violins (1 and 2), viola, violoncello, double bass.

⁵ Cfr. Theodor W. Adorno, *Introduzione alla sociologia della musica*, (introduction by Luigi Rognoni, translation by Giacomo Manzoni) Torino, Einaudi, 1988

privilege the author's point of view; whether opting for an aural point of view, which draws from the sound aspect and is often univocally applied to ethnomusicology or addressing the work towards the visual aspect, which keeps written data into account, to musical repertoires that contemplate the means of sheet music.

For what concerns the type of music under examination and my training I deem that, if its true, as pointed out by Umberto Eco, that «a continuous polarity crossed in different ways the all times' aesthetic discussion (mimesis and catharsis, form and content, author's point of view and audience's point of view)», I think we cannot exclude an analysis itinerary that, starting from written data, merges with the listening experience and it is prone to «establish the legitimacy of a residue, of a 'quid' that transcends acceptance» to arrive to an «“essence” finding the work of art that appears defined as pure presence, “pure reality”»⁶.

Therefore conjugating the listening experience and the score is the aim, according to a perspective of «*interpretive musical analysis*⁷: it takes place when, in an analysis process, music theory meets the interpretive perspective»

But, even though reciprocal passages from a music sheet to the audible result are inescapable, they sometimes constitute a rift in musical analysis, which means that: the theories on musical *significants* are analysis and those on *significates* are interpretations.

Now, since the first 'act of interpretation' - the one relevant to the musician who performs the piece - lies in a delimitation, within the time between the intention of the author (*intentio auctoris*), the intention of the piece (*intentio operis*) and the intention of the beneficiary (*intentio lectoris*)⁸ *significants* and *significates* cannot be fully separated, and this creates continuity between the listener - who enjoys the interpretation - and the score.

In *Résonances* this occurs between Mattila's voice, with Katz's piano, Maalouf's verses and Saahirah's music.

⁶ Umberto Eco, *La struttura assente*, Milano, Compiano 1980, p. 279.

⁷ Cf Wallace Berry, *Musical Structure and Performance*, New Haven, Yale University Press, London 1989; Joel Lester, *Performance and analysis: interaction and interpretation*, in Rink I., *The practice of performance. Studies in musical interpretation*, Cambridge University Press, Cambridge-New York, 1995; Caroline Palmer, *Music performance*, in *Annual Review of Psychology*, vol 48, pp. 115-138, 1997; François Delalande *Music analysis and reception* in *Journal of New Music Research*, vol 27 pp. 13-66, 1998

⁸ Cfr. Umberto Eco, *I limiti dell'interpretazione*, Milano, Bompiani 1990, and, by the same author, *Notes sur la sémiotique de la réception*, Paris: Actes Sémiotiques, Centre National de la Recherche Scientifique, IX, 81, 1987.

This 'continuity' responds to a “general musical competence” model ⁹ – and creates a bond between communicative acts, *all* of them, even the most common ones, intrinsic to musical expression; specifically: between female vocal expression and female musical language.

With reference to this ‘musical competence’ model and adopting the point of view of standard listeners (those who are not equipped with a specific musical competence), I agree with Michel Imberty¹⁰ who states that musical perception cannot exist without the perception of more or less broad and complex groups, firmly established throughout the time and that can be identified as 'cells', 'motives', 'times'.

This means that there can be no «musical analysis without identifying the cohesion and relationships between the units»¹¹ even though the majority of segmentation phenomena are complex, especially in contemporary music.

With my interpretation of *Résonances* I do not mean to «identify a central code in it and expunge anything else that is not accessory to it»¹² since I believe that the result of an analysis does not decide the sense of a piece but, on the contrary, it is an act at the service of significance research. Therefore, I offer to carry out a verification of the parasemantic use of intervals, drawing on considerations on musical language semantic character.

Adopting a semiological research we can in fact note how all cultural phenomena are communication acts whose single messages are organised and comprehended, with reference to mutual codes that were determined through society and history.

⁹ Cfr. Gino Stefani, *Competenza musicale*, Bologna, CLUEB 1982, where ‘competenza musicale (musical competence)’ stands for a series of attitudes that generate a body of rules shared between author and beneficiary. This concept is also re-examined in his work *La parola all’ascolto*, Bologna, CLUEB 2000.

¹⁰ Cfr. Michel Imberty, *De quelques processus cognitifs temporels dans la perception musicale*, in *Strutturazione temporale dei processi cognitive: Scritti in onore di Ernesto Valentini*. Comunicazioni scientifiche di psicologia generale, Università degli Studi di Roma, La Sapienza, Facoltà di psicologia, 12, 1985, pp. 231-247. The expression 'competence' in Imberty's perspective, undertakes the significance of ‘*competence*’ opposed to the execution, ‘*performance*’ and refers to ability of seizing the fundamental rules of musical grammar. Therefore Imerty's is only one of the aspects contemplated by Stefani's model of competence.

¹¹ ID., *Indicazioni per una psicologia cognitiva della musica*, in “Processi cognitivi in musica”, (a cura di) Loredano Matteo Lorenzetti & Alessandro Antonietti, Milano, Franco Angeli 1986, p. 25.

¹² Umberto Eco, *La struttura* cit., p. 282.

This type of research outlines «equivalent expectation systems»¹³, for what concerns the psychological approaches that are created with significance attributions but, «while denotation significates are established by the code, connotation ones are established by sub-codes or specific "lexica"»¹⁴, which presuppose a certain "familiarity", competence, etc... and so the "significant", in our case: the use of a given interval, «that presents itself increasingly more as a generating form of meaning, that is filled with several denotations and connotations in virtue of a series of codes and lexica»¹⁵.

It is a research of possible paths of meaning, starting from the analysis of some parameters that can be found in *Résonances* and we know that in this kind of analysis the relationship with the musical material has a broader reach than in different types of analysis (phraseological, morphological, set-theoretic, schenkerian, etc...).

The parameters analysis, in fact, is methodologically suitable for researches interested, together with matters of construction and cohesion, to any thing capable of characterising a repertoire (even a single author's): instrumentation and vocal composition techniques, use of consonance and dissonance, metrics, rhythm, vocal arrangement, etc...

A path to identify the most significant parameters, as pointed out by Ian Bent, «it moves from the awareness that music is a phenomenon that is too complex, to be resolved without braking up somehow its material in its fundamental elements»¹⁶ and that can be proficiently applied to single compositions, generally relating them to other stylistically similar pieces of music (as in the case of a piece taken from a *corpus* of works); here the non conversational form that can present the findings: printouts, summaries, graphs.

When some notes are picked from a piece, in order to analyse them, we speak about "sampling" or "pitch collection" or "pitch combination"; when they are reduced to "pitch classes" removing repetitions, it is called "pitch class set"; when a number of pitch class sets can be reduced to the same "primary form" they are called "equivalent"¹⁷.

Here I will take into account intervals and their incidence in the vocal part of *Résonances*, although with a broad view that also embraces the piano parts, namely for the type of structure implemented by Saariaho which does not relegate the piano to mere vocal accompaniment duties, but provides the listener with an element of its own, that has an actual dialogue with the leading voice.

¹³ Ivi, p. 10.

¹⁴ Ivi, p. 39.

¹⁵ Ibidem

¹⁶ Ian Bent, William Drabkin, *Analisi musicale* (Italian edition by Claudio Annibaldi), Torino, EDT 1990, p. 115.

¹⁷ Ivi, p. 128.

Résonances was chosen because it is the last piece of *Quatre Instants* and this allows me to finalise my analysis seeking for those interval aspects that the listener chooses and more distinctively recognises, being them 'familiar', to quote Eco, when they present themselves again after the other three pieces: *Attente* (that has many elements that recall and remind of *Résonances*), *Douleur*, *Parfum de l'instant*.

My experience as an academic confirms the importance of 'familiarity' with certain elements that, recurring more than once in a piece, direct the listening experience and for this I agree with Cesare Segre, adapting his words - that belong to literary criticism - to the listening of a musical piece: «the interpretation of each phrase is therefore an act of recognition, recognition of the stylistic-linguistic system previously glimpsed on the basis of the aforementioned interpretation; recognition, in particular, of words, stylistic elements, identical or similar or opposed constructions, that can anyhow be compared with those we encountered previously (recurring events); recognition and clarification of connotative levels»¹⁸. The analogy between reading and listening to a piece is possible, since both acts are basically based on the ideas of *recognition*, *wait*, *recurring event*, *memorial synthesis* and put the beneficiary first.

The redundancy of certain elements - figures of speech that we will analyse later - in *Resonances*, originates a recursive mechanism of "mise en abyme" that aggregates and breaks apart, as opposed to the other three pieces of *Quatre instants*, and allows me a constructive consideration on Katia Saariaho's music, focused on vocals: an anthology of feminine singularity.

Therefore, an analysis that seeks the incidence of a given musical interval, without crystallising the fruition of the piece in question, since it always assumes the awareness that the interval is included, time after time, in a combination of intervals (combination that, depending on musical contests, we will call; 'phrase', 'motive', 'theme', etc...) and that this combination changes establishing this way a new *synchronic* relation between the elements at any *diachronic* mutation.

As in contemporary linguistics many ¹⁹currents identify a double articulation in the language, similarly we can identify *first articulation* units in music, that are units provided with a meaning (in linguistics: monemes/morphemes) that combine creating *second articulation* units (in linguistics: phonemes).

The research of first articulation units falls under the syntgmatic relation level, the closest, therefore funding, of the significate levels, both as *denoted* (specific lexical codes) and *connoted* (rhetorical system, stylistic lexica).

Bringing to the surface the articulation units to determine the code of the piece is to unveil its *idiolect* (which in this case is the private individual code) and this applies to both, the production of the same author as well as, a fortiori, the same musical *corpus*, and this is *Résonances'* case, put at the end of *Quatre Instants*, because in fact

¹⁸ Cesare Segre, *Le strutture e il tempo*, Torino, Einaudi, 1974, pp.17-18.

¹⁹ Cfr. André Martinet, *Elementi di linguistica generale*, Bari, Laterza 1974

this «idiolect generates imitation, approach, stylistic familiarity»²⁰. In other words, some of the elements that the listening experience identifies as key for assigning a sense in *Résonances*, and that will be pointed out by the analysis, are perceived as 'familiar' since they were already present in the first three pieces of *Quatre Instants*, without such analysis to univocally address the fruition 'determining', so to speak, just one meaning.

On the contrary, the fact that the «the aesthetical message allows an open and developing interpretation»²¹ in an incontrovertible evidence, but it is equally true that since a musical piece (as well as any 'sonic object' intended as extension of any 'aesthetical message') undergoes an analysis, this translates «the so-called "expressive" contrivances in communication contrivances»²².

Giving *Résonances* this type of analysis does not mean, then, to reduce it to a scheme, but highlight its various aspects «in order to establish the mechanism that allows the prosperity of interpretations, therefore a continuous attribution of meaning which the piece-message will be invested of»²³ by the listeners.

This meaning attribution operation, which is intrinsic to the listening experience, focused the researchers' attention first on the emotional and affective scope²⁴ and then towards the cognitive scope, with the affirmation of the *H.I.P. Processing) paradigm*

²⁰ Umberto Eco, *La struttura cit.*, p. 68

²¹ Ivi, p. 71

²² Ibidem

²³ Ivi, p. 279.

²⁴ Carl Stumpf, *Tonpsychologie*, Leipzig Hirzel 2 vol 1883-1890; ID. *Konsonanz und Dissonanz*, Beiträge zur Akustik und Musikwissenschaft, vol. 1, 1898 pp. 1-108; D.G. Ellis & G. Bringhouse, *Effects of music on respiration- and heart-rate*, American Journal of Psychology 65, 1952, pp.39-47; Leonard Meyer, *Emotion and meaning in music*, Chicago, University of Chicago 1956; Robert W. Lundin, *An objective psychology of music*, Wiley, New York 1967; Michel Imberty, *Suoni Emozioni Significati*, CLUEB, Bologna 1986; ID., *How do we perceive atonal music? Suggestion for a theoretical approach*, Contemporary music review, V 9, 1-2, 1993 pp. 325-337; John A. Sloboda & Patrick N. Juslin *Music and Emotion: Theory and Research*, Oxford University Press 2001; Lage Wedin, *A multidimensional study of perceptual emotional qualities in music*, Scandinavian Journal of Psychology, 13, 1972 pp. 241-257.

and relevant researches ²⁵, to detect how the listening experience implies the activation of complex mechanisms and mental operations: processing, transformation, storage and recovery of the sonic information included in the sensorial *input*, functions that the subject performs more or less consciously and that precede the attribution of meaning to music.

In particular, researches have shown that a musical piece is not perceived as an indistinguishable flow of sounds because, when listening, the sonic *continuum* is broken into parts and assimilated into pre-existing emotional and cognitive schemes, with mental processing of the sonic information that is configured as *musical competence* of the very listener. Among the several components of a musical piece «in melody mutual experience and competence are fulfilled clearly much more than in harmony where, vice versa, the expert's competence is higher»²⁶, then, I will examine the parameter of the musical intervals indented, semiologically, as *cultural units*: «never 'seen' but always used by the common producer of signs, they are not used but 'seen' by a theory of signs that is no other than the science of this competence continuously implemented also by who is not aware or conscious»²⁷.

My reading aims to highlight the musical traits, intended as 'cultural units', according to Eco's definition, with relevant semantic connotations; traits that the score delivers as “*topics*”²⁸ to the listener by means of the performer. This work is part of a field of correlation between musical semiotics and hermeneutics in search of a generative

²⁵ Robert Francés, *La perception de la musique*, Paris, Librairie Philosophique J. Vrin 1958; Abraham A. Moles, *Informationstheorie und ästhetische Wahrnehmung*, Köln, M.DuMont Schauberg 1971; Diana Deutsch, *Music recognition*, *Psychological Review* 76, 1969 pp. 300-307; e his more recent *The processing of pitch combinations* in D. Deutsch (Ed.) *The psychology of music*, 3rd Edition, San Diego, Elsevier 2013, pp. 249-325; Fred Lerdahl & Ray Jackendoff, *Toward a formal theory of tonal music*, *Journal of Music Theory* 21.1, 1977 pp. 111-171; Jay W. Dowling, *The cognitive psychology of music*, *Humanities Association Review* 30, 1979 pp. 58-67; William E. Benjamin, *Varieties of musical cognition: a music theorist's view*, *Journal of the Acoustical Society of America* 69, 1981 pp. 102-122; Jack Heller & Warren Campbell, *Music communication and cognition*, *Bulletin of the Council for Research in Music Education* 72, 1982 pp. 1-15; Roy D. Patterson, *The Processing of Temporal Pitch and Melody Information in Auditory Cortex*, in *Neuron* 36, 2002 pp. 767-776.

²⁶ Gino Stefani, Luca Marconi, Franca Ferrari, *Gli intervalli musicali –dall’esperienza alla teoria*, Milano Bompiani, 1990 p. 3.

²⁷ Umberto Eco, *Trattato di semiotica generale*, Milano, Bompiani 1998, p. 106.

²⁸ Cfr. Liisamija Hautsalo, *Whispers from the Past: musical topics in Saariaho's L'amour de loin*, in *Kaija Saariaho: Visions, Narratives, Dialogues*. Tim Howell with Jon Hargreaves & Michael Rofe (eds.). York, UK: Ashgate Publishing, 2011, pp. 107-129.

semiotic of²⁹ the “*structures of communication*”, that are found in the text on a surface level and can be perceived by the naked eye, by reading the score or listening to the performance and “*structures of signification*”, that exist at a deeper level and that can therefore be reached only through an analysis finalised to such purpose and in this case, in particular, for determining the significance of intervals.

While researching³⁰ in this direction Jacques Chailley, in *Eléments de philologie musicale*³¹, studied the intervals within musical systems that distinguish consonances and dissonances. According to Chailley, the only signification proper to music concern the «*tension/distension*» principle, where tension is the dissonance and distension, vice versa, is consonance putting music de facto in the symbolic scope, as also Marco De Natale does, addressing the topic, in a work on musical structures and forms as symbolic processes.³² In the second part of his book, called: *The diastematic space*, when considering the principles that are the fabric of the perception of a single interval, De Natale considers first the melodic interval and then the harmonic interval and at the end of his research he states «the single interval can hardly be separated from a broader formal context that includes it, and this is because, concretely, it worked mainly in formal matrices - historically variable - of superior order, both because the interval itself, in its value of psychic construct, claims complex operations of the acting subject»³³. The investigation of the single interval is also resumed in one of his works, appeared ten years later, in which De Natale analyses the possibility of meaning in intervals, even in «morphological and syntactic organisms that can be more consistently found in music»³⁴, where the interval is seen as a «trait invested with distinctive properties in a melodic flow». He underlines a certain inclination of the interval «to be symbolically interpreted».

Before De Natale, while trying to confer a meaning to musical intervals, Belgian pedagogist Edgar Willems³⁵ talks about an "expressive value" proper of the sonic

²⁹ Cfr. Algirdas Julien Greimas & Joseph Courtés, *Semiotica: dizionario ragionato della teoria del linguaggio* (a cura di) Paolo Fabbri, Firenze, Usher 1986; Eero Tarasti, *A Theory of Musical Semiotics*. Indiana University Press 1994.

³⁰ Cfr. Françoise Dedalande, *Le condotte musicali*, (a cura di) G. Guardabasso e L. Marconi, Bologna CLUEB, 1993.

³¹ Cfr. Jacques Chailley, *Eléments de philologie musicale*, Parigi, Leduc, 1985.

³² Cfr. Marco De Natale, *Strutture e forme della musica come processi simbolici*, Napoli, Morano 1978.

³³ Ivi, p. 74.

³⁴ Marco De Natale, *Analisi della struttura melodica*, Milano, Guerini 1988, p. 98.

³⁵ Cfr. Edgar Willems *L'orecchio musicale*, preface by E. Jacques Dalcroze, Padova, Zanibon, 1982.

object at issue, but listened to separately, apart from any context in a course that can be brought back to the introspection method, in which the author organises the significates of intervals according to three categories: sensorial, emotional, intellectual.

The itinerary suggested by Willems keeps into account a gradualness that begins from the sensorial act of aural perception, to the interest for the sound, as a physical element, up to the complete awareness of the experienced process (differentiating: hearing, listening, feeling).

In this context, the author identifies intervals in a developing manner, from unison at the right octave, and with an isolated listening experience, which is *abstract* and *artificial*, he asks the group of listeners to seize, not the cultural, linguistic meaning of the mere sonic objects, but connections with aspects that strike the senses of the listeners, their emotions and intellect.

Gino Stefani with Luca Marconi and Franca Ferrari, in the 90's, adopted a different approach, with a non-abstract, non-artificial methodology, they started a research on the meaning of musical intervals - both from a linguistic and a social-semiotic point of view - to give voice «through the 'means of knowledge' to the people's point of view, which is the common competence, certainly different from musicologists' or semiologists'»³⁶.

This type of analysis is in fact trying to determine which element is more significant in a given musical context, in a specific piece. This assumes, similarly to verbal communication with all the various linguistic items that mutually contribute to the global meaning but not each one to the whole meaning, that also in music the various elements contribute to the meaning and can be then assessed.

This starting point opens the door to many research perspectives: «we can proceed inductively: once a given element is found in a phrase, consider all other phrases that have only this element in common; then observe if all these phrases always contain the same meaning of the first»³⁷ but we understand that this method diminishes its efficacy as soon as the number of musical examples that concur in the analysis increases.

We can proceed deductively, «considering if the phrase under examination contains meanings that have been already connected to a given element present in the case in question by existing grammars» but we reckon that this method is relevant only to those musical repertoires that implement highly structured grammars.

Stefani, Marconi and Ferrari propose a “third way” that «is *abduction*» and it is proposed as an hypothesis that shall be verified, supposing that a «a given element connects to (and therefore explains the presence of) a given meaning, the next step is trying to confirm or deny this assumption».

³⁶ Gino Stefani et al., *Gli intervalli* cit., pp. 4-5.

³⁷ Ivi, p. 155.

In their analysis, in fact, once established the *significant contingency* (the meaning that is given) of the interval under examination - interval that we remind was never taken out of its original context - then it undergoes the *pertinence inspection* by means of interval replacements. 'Element relevant to a meaning' then means, «changing the element, replacing it with another one, changes the meaning»³⁸. It is therefore applied a method that linguists call "*commutation test*".

The first phase of the work involves an intuition process that aims at finding a correlation between the interval and the meaning that 'musical competence' associates to it, then an experimental method is applied, with the aforementioned 'commutation test', in order to prove the relevance (or lack thereof) of the initial hypothesis, which is the efficacy of the correlation that had been found.

It is then proven that an interval form concurs in an «irreplaceable manner to build a given meaning and therefore it has a certain semiolinguistic function»³⁹.

For the analysis of intervals in *Résonances* I examined, as previously mentioned, the vocal part given to the soprano and I considered the intervals within the same musical phrase - the interval that is generated between the last note of a phrase and the first note of the following phrase after a pause that is longer than one measure was not assessed, this is because while listening it is difficult to catch two notes "from a distance" and provide them with an individual unit -.

Intervals are also considered in their 'interval form' and here I'm using the expression 'interval form' instead of interval in order to point out not only the distance between two notes, but also the 'spacial form' that the distance between two individual notes can assume with its direction, which could be ascending or descending.

From the analysis of *Résonances* the interval form that seems to be more relevant is the semitone, the minor second. It appears as an ascending minor second twenty-three times⁴⁰ and as descending minor second eighteen times⁴¹. In total it represents more than a third of all intervals.

The second interval form in terms of presence is the tritone, intended as augmented fourth interval that appears six times⁴² as well as diminished fifth that recurs four times⁴³.

³⁸ Ivi, p. 156.

³⁹ Ivi, p. 157.

⁴⁰ Bars: 9/10, 24, 26, 34, 36, 41/2, 45, 46 (2 times), 56/7, 61 (2), 66, 68, 71, 72 (2), 76, 81, 83, 86/7, 92, 104.

⁴¹ Bars: 8, 14, 14/5, 25, 26, 56, 57, 61/2, 66/7, 87, 93, 100/1, 101 (2 times), 106 (2), 108, 111/2.

⁴² Bars: 24/5, 25, 34/5, 81/2, 87/8, 106,

⁴³ Bars: 36/7, 83/4, 101, 111.

The tritone, also called *passus duriusculus*⁴⁴, recurs ten times to which I would add one more. I think it is important to point out the interval form that generates between the two melodic peaks reached in *Résonances*, even though it is not an interval per sé, since they are two notes placed respectively on bar 29 and 51, it has a strong incidence on the listening experience: the Mi flat that lasts for three bars, from 29 to 31 and the La that lasts for four bars, from 51 to 54, both on the word “toi” *together* determine another augmented fourth, another tritone.

The fact that these two notes are the highest peaks reached by the voice as well as being the longest, together with the coincidence of the word, means that they are into correlation during the listening experience.

The semitone and the tritone, these are the elements to be taken into consideration to bestow a meaning, since the other interval forms have a lower incidence and will be evaluated depending on the case.

Despite being the main analysis carried out on the vocal part, another consideration concerning the piano part cannot be ignored; where, together with the interval form of the semitone, also the tritone becomes very relevant due to the references that it creates with the singing and the expectation that it creates during the listening experience, since semitone and tritone are the same interval forms that *Résonances* inherits from *Attente*.

They characterise the first piece of *Quatre Instants* starting with the bass, that informs the left hand on the piano of the Fa-sharp tritone [bar 1], and notify the voice that begins with a Do-sharp/Re [bar 19]

So, by observing the piano part in *Résonances*, we can notice that the interval form of the minor second is the one that opens, with a warble on the Do-sharp at the right hand that alone begins the first bar and develops in minute representations; the latter concern both hands, both as a melodic interval form as well as harmonically thus characterising the whole plot of the piece by creating a very interesting rhythmic storyline - that derives from the simultaneity of the two different lines of to the right hand as well as the left (semiquaver quadruplets and sestinas).

If we consider *Résonances*' 120 bars, the golden section culminates with bar 74, which retains only the piano iterating a demisemiquaver quadruplet to the right hand: La, Sol, Fa-sharp, M-flat. So we can notice that the extremes are a tritone - with the same notes, La/Mi-flat, of the aforementioned melodic peak - which includes a semitone.

We should now point out that the interval forms that open the melodies, being related to the verbal phrases and mnemonic reinforcement determined by such, remain more impressed in the listener's memory.

Résonances's incipits occur as follows: first three verses: *Ma porte...//Puis, doucement...//J'ai deploy...* which are characterised by consonant interval forms (the

⁴⁴ "Suffered somewhat hard". Cf. Hans-Heinrich Unger, *Die Beziehungen zwischen Musik und Rhetorik im 16.-18. Jahrhundert*, Georg Olms Verlag, Hildesheim 1941 and *Musica e Retorica*, Conference Proceedings (Messina, 11-XII-2000) editing by Nunziata Bonaccorsi, Alba Crea, Ed. Di Niccolò 2004

first two by a major triplet and the third verse by a perfect fifth), all the other phrases (*Pour que...// J'aurais...// Nos doigts...// Nos corps...//Tu es le...//Tu es la...// J'aurais...// Nos corps se...// Mais je...// J'aurais tellement...//Le remords...//Mon amant ...*) open with a semitone until the third-last verse *Je suis* which begins with a major third and the last with a tritone: a diminished fifth on the verses *Et le vent*.

We can say that, especially for what concerns vocal music, dissonance, the 'chromatic' element, confers tension and instability, 'emotional unbalance', while consonance provides stability, 'balance', safety⁴⁵.

Also, we should not forget that, for what concerns the relation between Maalouf's verses and Saariaho's music, that the sung phrase from bar 45 (the last two octaves) up to bar 47 corresponds to the phrase from bar 71 to bar 73. We can say that it is a 'similitude' principle since the piano part has some differences, but if we consider the listening experience focused on the vocal line, we can then talk about 'correspondence', especially considering that the verse is the same: *Nos corps se découvrent*.

All this contributes to creating those recognition, association and memorisation processes, which are the foundations of the attribution of meaning to articulation units.

There are other moments of symmetry, even if they are implemented with different techniques, that can be found in *Résonances*, in fact, if *Nos corps se découvrent* actuates a *repetitio in toto*, in *J'aurais tellement's* case at bars 34/35 the phrase recurs on bars 66/67 with the same *incipit* but with the last interval form as an inversion: the Fa sharp minor third is transformed in a major sixth: La-Fa sharp generating an *anaphora*.

At this point we have to consider which are the attributions of meaning, found in the aforementioned researches, against the interval forms of major incidence in *Résonances*.

Willems and Stefani's work are the most suitable ones, because they implement such a different methodology that they become complementary: Willems who makes participants listen to decontextualised intervals and Stefani with Marconi and Ferrari who provide intervals taken from a number of different musical repertoires.

In Willems' prospect the minor second appears associated with the terms: *imbalance, fear, timidity* (chart I) and, later, (in chart II): *wrinkled, irritation, illness* while the tritone when it is considered as "augmented fourth" is associated (chart I) with the following terms: *fracture, disdain, pretense* and then (chart II) *heat, excitement, surprise* while as "diminished fifth" it is associated to *agitation, uneasiness, doubt* as well as *instability, uneasiness, uncertainty*.

In Stefani's research the sense observed for the minor second is *lament*. "*The minimal oral expression of lament* is a brief emission, slightly descending" p. 126]. Researches have shown that, if a pertinence test is implemented, changing the distance and turning it into a major second and unison (a replicated sound), the sense of lament is no longer determined and the characterisation given to the semitone disappears.

⁴⁵ Cfr. Alessandro Bertirotti, *Amare per conoscere*, in *Il ruolo della musica nella formazione dell'identità individuale e sociale*, Pensa Multimedia Edition, Lecce 2009, 77-107.

This interval is defined 'sore note', 'pathetic note', even though it is *two sounds* that create a minor second interval, but here, more than for other distances, the feeling that only one note - therefore *a single sound*, that reflects, lowers, descends - exists.

Researches discovered that, as in many cases, the function of the second minor interval is syntactic. Both considered as an ascending or descending interval, it sometimes has a modulating or decorative function. It is then provided with the meaning of *modified* interval, against a 'normal' reference interval (as in tonal contexts when a modulation occurs), or *connection* interval (as in passages where the chromatism intervenes to fill the tonal distance, 'softening' it and somehow attenuating it), it would be reductive to associate the semitone strictly with the 'sore note', since, as pointed out by William Caplin, «seeing as the chromatic melodic figure lying at the basis of the lament appears so pervasively throughout music of the late Renaissance to the mid-twentieth century» also as documented by Peter Williams⁴⁶, therefore «many instances of that figure do not necessarily project the affective attributes of sorrow, mourning and so forth that are typically associated with the lament as a genuine *topos*»⁴⁷.

In *Résonances*, the minor second undertakes and holds many identities, sometimes with a paratactic function but, in any case, it represents the interval of *crisis*, since «its sense is the potential simultaneous sum of all identities that characterise it»⁴⁸ this interval form.

For what concerns the tritone, «in both cases, vocal ascent and descent, we feel *anomalous, altered, incontrollable, unfamiliar* gestures»⁴⁹ p. 86 and despite being two intervals written in a *different form* (augmented fourth and diminished fourth) both have the *same amplitude*, it is the *tritone* that splits the octave exactly in half.

With the pertinence test, provided by the methodology in use, it occurred that by modifying the amplitude of tritones (bringing them respectively to a perfect fourth and fifth) the "vocal gesture" becomes much less emphatic, it "normalises" so to speak.

Stefani's research - thanks to the musical material provided to the subjects involved which, as we pointed out, do not refer to only one musical genre or a period of music's history - has also underlined that «after being for a long time used as a 'diabolic' interval or as an element of tension that anticipates a resolution» since as early as «the beginning of the Twentieth Century the T [tritone] was invested, outside tonal schemes, with new important functions» and instead of «being felt as an alteration of the cadential order» it

⁴⁶ Peter Williams, *The Chromatic Fourth During Four Centuries of Music*, Oxford, Clarendon, 1997.

⁴⁷ Caplin William E., *On the relation of musical 'topoi' to formal function*, *Eighteenth-Century Music* 2/1, pp. 113-124, Cambridge, Cambridge University Press, 2005 (footnote p.120)

⁴⁸ Gino Stefani et al, *Gli intervalli* cit. p. 144.

⁴⁹ Ivi, p. 86.

"imposes itself as *polarity of a new order, fulcrum of a suspended balance*, that does not need to be corrected»⁵⁰.

What we can deduce from this semiosis relevant to musical intervals is that, especially when they are generated by the voice, they represent vocal alterations concerning the psychological state of the subject who produces them. In some languages, for example this closeness is expressed also in the terms that characterise voice and mood. In German: "voice" is *stimme* and "mood" is *stimmung* sharing a communal root. This consideration, together with the repetitions (of single interval form or melodic 'portions') that occur in *Résonances*, they allow an interpretation that is in line with the researches⁵¹ of musical rhetorical structures.

So the repetition of the second minor interval form represents a '*synecdoche*': a figure of speech that mentions a part for the whole, where the semitone receives all the dissonance, even the emotional one relevant to Maalouf's lyrics.

The first element to be considered then is the presence of the soprano voice in *Résonances*⁵². Many of Saariaho's work choose this register of the female voice⁵³ as well pointed out by Hautsalo: «from a musical perspective, the key individual stimulus for Saariaho has been the human voice; she prefers writing for female voice, because it is "[her] own voice"»⁵⁴.

⁵⁰ Ivi, pp. 93-94.

⁵¹ Cfr. Byron Almén, *A Theory of Musical Narrative*, Indiana University Press 2008; David Lidov, *Is Language a Music?: Writings on Musical Form and Signification*, Indiana University Press 2005; Jean-Jacques Nattiez, *Music and Discourse: Toward a Semiology of Music*. Princeton University Press 1990; Leonard G. Ratner, *Classic Music: Expression, Form and Style* Schirmer Books 1980; Gino Stefani, Eero Tarasti & Luca Marconi, *Musical signification, between rhetoric and pragmatic: proceedings on the V International congress on musical signification*, Bologna CLUEB 1998; Lawrence Zbikowski, *Conceptualizing Music: Cognitive Structure, Theory, and Analysis*. Oxford, Oxford University Press 2002.

⁵² «to date, Saariaho's output for the voice comprises of some thirty works, most of them for soprano voice» sottolinea Pirkko Moisala in *Kaija Saariaho*, University of Illinois Press, 2009, p. 87 .

⁵³ Some popular ones: *Château de l'âme*, soprano only, 8 female voices choir and orchestra; *Die Aussicht*, soprano, flute, guitar, violin and violoncello; *Miranda's lament* soprano, clarinet/flute, harp, viola/violin, double bass/violoncello; *Quatre Messages* per two sopranos, flute and harp; *Ariel's Hail* soprano, flute and ara; *Cinq reflets* soprano, baritone and orchestra; *La Passione de Simone* per soprano, choir, orchestra and electronic

⁵⁴ from an interview that Saariaho gave to Liisamaija Hautsalo on 29/11/2003, in *Whispers from the past* cit.

In the paragraph of her work called: *Towards Opera: The Soprano Voice and Melody*, Hautsalo considers that «originally the theory of musical topics was intended for the semantic analysis of Viennese classical instrumental music, and was formulated in the early 1980s by Leonard G. Ratner (1980)». From this, Raymond Monelle⁵⁵ has developed his own semiotic application, based firstly on Charles S. Peirce's⁵⁶ and secondly on Ferdinand Saussure's⁵⁷ concept of the semiotic sign. First, following Peirce, Monelle «demonstrates how a topic can therefore function either as an icon» and then, following Saussure, he «demonstrates that a topic consists of two dimensions – the signifier (content) and the signified (expression)».

Hautsalo continues stating that «as topic theory was originally conceived to analyse tonal music, it is not applied so frequently to post-tonal repertoire. Yet despite the lack of tonal harmony in Saariaho's musical language, her operas often make repeated reference to recognizable musical gestures, passages and patterns; the structure, form, direction, rhythm or instrumentation of these passages resonates closely with certain standard musical conventions – or topics. At times these reinforce textual content»⁵⁸ as we can say occurs in *Quatre instants*.

The soprano voice incarnates the poetics of dissonance, identifies the female nature that is expressed during the seduction process.

This process in Saariaho's music allows Maalouf's lyrics to shine through, *in absentia*, since «this music never sounds like some kind of technical exercise; it is frequently praised for its sensual beauty»⁵⁹.

And if Maalouf's verses *Ma porte s'est ouverte à lui // Pour que l'amant me voie // Nos doigts s'emmêlent // Nos corps se découvrent // Tu es le parfum de l'instant // Tu es la peau du rêve*, refer to the presence of a man, it is a presence-absence since the narration occurs from a female point of view.

As Baudrillard points out, «seduction and femininity, have always been mixed up [because] seduction and femininity are inescapable»⁶⁰.

Even when it's a man who desires a woman and when it's him to express himself, the female motive incarnates in music and the seduction of dissonance that catches the

⁵⁵ Cfr. Raymond Monelle, *The sense of music: semiotic essays*, Oxford, Princeton University Press 2000 and *The musical topic: hunt, military and pastoral*, Bloomington, Indiana University Press, 2006.

⁵⁶ Charles Sanders Peirce, *The philosophy of Peirce: selected writings*, ed. by Justus Buchler, New York AMS Press, 1978.

⁵⁷ Ferdinand de Saussure, *Cours de linguistique général*, ed. by Charles Bally and Albert Sechehaye with Albert Riedlinger, Lausanne-Paris, Payot 1916.

⁵⁸ Liisamajja Hautsalo, *Whisperes form the Past* cit., p. 112.

⁵⁹ Tim Howell, *Preludes and Codas* in *Kaija Saariaho: Visions, Narratives* cit. xxiii.

⁶⁰ Jean Baudrillard, *Della seduzione*, Bologna, Cappelli 1985, p. 8.

listener's attention. Aren't maybe two the interval forms that we detected: semitone and tritone, that characterise "Jaufré's desire motive" as pointed out in Yayoi Uno Everett's brilliant analysis⁶¹?

When Jaufré speaks the words "*la femme que je désire*", he does it with three semitones - do sharp-re (2 times), sol sharp-la-, divided by an augmented fourth - Re-Sol sharp- there Everett finds two motives, an ascending one «that signifies positive engagement (yearning)» and a descending one «that signifies negative engagement (resignation)»⁶².

My interpretation attributes to the ascending motive female strength that creates attraction, which due to a 'diversion strategy' passes to male. I use the expression 'diversion strategy' because in Latin seduce, "*se-ducere*" means: bringing towards oneself, taking aside, diverting from one's path.

In *Résonances* the seduction of the words: *J'ai déployé toutes les voiles // J'aurais tellement voulu te garder* generates the 'diversion', but what is diverted in this process?

«*Seduction* is something that takes away its sense from the subject and diverts it from its truth»⁶³. This way, the opposite of what is distinguished in psychoanalysis occurs, manifest and latent subject, where the latter diverts the manifest subject *towards* its truth. The music diverts the manifest subject of the language *from* its truth towards the seduction that can only be interpreted by the female voice. This process guides the listening experience, quoting Carolin Abbate: «in other words, our ears are forced to become female»⁶⁴.

The female voice is a metaphorical form, of which everything can be said "externally" (tone, timbre, pitch, etc...) while nothing can be described in full regarding its "internal substance" which concerns the breathing flow, the "internal wind" that is expressed with the choice of given intervals, those interval forms that are 'distances' and, due to such nature, they undertake communication acts also in terms of space.

What we have researched here is not a grammar of intervals, but the elements of a complexity related to the semantics of the voice.

Therefore the female voice that sings a semitone, a minimum 'distance' if you will, is a voice that creates and needs intimacy, vicinity, confidence, it is a voice that is about to confess, that 'sings' to its frame of mind what it otherwise would not dare saying and the tritone is its internal struggle.

⁶¹ Yayoi Uno Everett, *The Tropes of Desire and Jouissance in Kaija Saariaho's L'amour de loin* in *Music and Narrative since 1900*, Edited by Michael L. Klein & Nicholas Reyland, Bloomington, Indiana University Press, 2013 pp. 329-345.

⁶² Ivi, pp. 335-336.

⁶³ Jean Baudillard, *La seduzione* cit. p. 77.

⁶⁴ Carolin Abbate, *Opera: or the envoicing of women*, in *Musicology and difference: gender and sexuality in music scholarship*, ed. by Ruth A. Solie, University of California Press, 1993, p. 251.

The female voice in Saariaho's writing, especially as it is delivered in *Quatre Instants*, is a paradigm that interests several levels of research, quoting Tim Howell «additionally, there is much debate about how this may be perceived by audiences, understood by analysts, evaluated by psychologists»⁶⁵.

⁶⁵ Tim Howell, *Preludes* cit.