Aspects of musical structure and functionality of electroacoustic media in the performance of ancient Greek tragedy A composers' point of view (P. Velianitis)

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Background in music

This paper compounds an approach of music creation in ancient Greek tragedy in Greece, during the XXth century, focusing in the avant- guard composition techniques and especially in mixing instrumental, vocal and e/a (electroacoustic) means with a critical view on the works of Xenakis, Christou, Adamis and Vasiliadis concerning the reforming of the micro-macro-musical structure.

Background in composition

This paper refers also, to a particular point of view in composition using e/a material in order to achieve this sound structure that conventional means could not create. This is an advantage of the e/a sound editing, based on the flexibility of handling the sound as a plastic material. This technical topic brings new aesthetic and structural questions so at the conception of a work as at its realization too. A critical confrontation of editing ready given samples to newly made.

Aims

Distinguishing the recorded playback music from the e/a material we realize the second one gives the opportunity to keep an eye open closer to the "ethos" of the text. Independently of specified styles and techniques, the challenge transforming symbolism in abstract sound is risky and if stylized becomes guide to superficial performance so often in the (recent) past.

Aiming to approve this interaction between music structure - aesthetic approach and text - sound, form comes to be a servant of nowadays needs in realizing an ancient tragedy.

Contribution

As the technological contribution in sound editing and composition leads to new fields of aesthetic and structural quest it was expected to influence the music for theatre. Through these new tendencies the limitation in serving the text is also the freedom to give the abstract and symbolic light of it. As directors wade into ancient tragic theme through contemporary hypocritical techniques and directing views, composers are capable to rely upon new technology.

Implications

Moving away form the classical techniques for composing music for the ancient Greek tragedy based on the ancient and Byzantin melos as it was seen the first half of the XXth century by many Greek composers and bringing the avant-garde techniques in combination to the new e/a media as a ritualistic reinforcement of the text , this paper intends to focus on the new structures, means and compositional techniques through a composer's view . The above points that this novel study in e/a techniques may have many implications both in musicological as in music theory domain. Firstly, because it scopes to redefine the compositional strategies through the digital medium according the needs of the text and secondly because it introduces new aesthetic approaches that reinforce the "tragic| element through the e/a media.

Introduction

By the end of 6th century B.C., Greek tragedy had already a prominent place in philosophical discussions. From Plato's and Aristotle's writings ⁱ to contemporary literature, many scholars (philologists, philosophers, anthropologists, historians and psychoanalysts) have been discussing the birth and the nature of tragedy. Concerning the creation of the Greek tragedy which is supposed to be the forerunner of the modern theatre and opera, much has been said about its origins and its meaning (see the essay of F. Nietzscheⁱⁱ and de U. von Willamowitzⁱⁱⁱ in the XIXe century, and also the lectures of the ritualists in Cambridge, the philosophers of Lille, the Anthropologists of the school of Paris, in the XXth century).

Apart from the tragedies of Aeschylus, Euripides and Sophocles, the documentation we have regarding the music used in the Greek theatre, (choir performance recitation, singing, practice) is very limited. There is no evidence, for instance, for the quality of the vocal effects reproduced by the actors wearing the masks in order to express their emotions. In other terms, we ignore the sound qualities of the ancient Greek tragedy.

tragedy founded on the As is interpolation of several arts, we must take into account that music is the only dynamic art in close relationship to the speech-poetry which runs into centuries and can stimulate emotions, push us to and reinforce it through the feel evolution of time. The music derived speaking/singing voice from the demonstrate different states of human passion (laments, grief [πένθος]) and it represents the Dionysian tragic suffering which reminds us of Nietzsche's theory that Greek tragedy has been born "from the spirit of music" and also that music plays the role of the vehicle of poetic speech.

Can we discuss in our days about the musical structure in Ancient Greek tragedy by contemporary composers? In which way the ancient structure can coexist with new techniques? Can contemporary composers have access to old practices? Can they work on the musicality of the voice as has been the case in Ancient times and in which way? preserve Can composers the macrostructure of the Greek tragedy? How new technologies influence the music performance of tragedy today?

Moving away from the old, established techniques (ancient and Byzantine Melos) in composing music for the ancient Greek tragedy, this paper intends to focus on the discussion of new structures and compositional techniques - which may reinforce the ancient text - from a composer's point of view. The above points from this original study as regards electroacoustic techniques may have many implications both in musicology and in music theory. Firstly, because it aims to redefine the compositional strategies through the digital medium according to the needs of the text and secondly because it introduces new aesthetic approaches that reinforce the "tragic" element through electroacoustic media.

1. Musical aspects of ancient Greek drama during the XXth century

Although Greek tragedy was the starting point for the development of the opera and the modern tragedy of Racine, Greek scholars and composers have approached this genre of music, in a different way than the opera. They were limited to interpret the works of Aeschylus, Euripides, Sophocles in the ancient theatre of Epidaurus using a realistic approach based on the musical documents emerged from the field of archeomusicology.^v

The first attempts to reform the music of ancient Greek drama, appear in the works de George Sakellaridis of *Iphigeneia* (1905) and George Paxtikos Prometheus (1910) that have composed music based on the original structure of the ancient Greek tragedy on the Byzantine Melos according to the papyrus of Oxyrhynchus vi and the Delphic hymns.^{vii}

Indeed, the most crucial moment for the rebirth of ancient Greek tragedy is the genuine interest expressed by Angelos and Eva Sikelianos who, in the 1920s, collaborated with various artists in order to represent the new spirit of ancient Greek tragedy. At the first Delphic Festival of 1927, Eva Palmer-Sikelianou presented a pioneering production outdoor of Aeschylus' Prometheus Bound. Three years later, she staged again a performance of Prometheus production and added a of Aeschylus' new one Suppliant Women. According to Gonda Van Steeviii philosophical Palmer-Sikelianou's conception of the "sacred" space of the ancient theatre at Delphi, i.e., its almost circular orchestra and its open-view the setting within surrounding mountains inspired her to opt for a minimal stage-design. ^{ix} The original music for the Delphic Festivals has been written by Constantinos Psachos ^x including the choral pieces from Aeschylus' Prometheus Bound and Suppliants based on the Delphic hymn model. Since the inauguration at the Delphic feasts, the development of the Ancient Greek tragedy has been took place in several ancient theaters like Epidaurus, Dodone, etc. In September 1938 the National Theatre production of Electra, directed by Dimitris Rondiris, was the first to have been staged at the "most beautiful theatre in the world" since ancient times.^{xi}

Meantime, there has been a universal movement in the performance of greek ancient drama where performances have been structured between the pole of the opera and that of the severe ancient Greek drama^x. Within, many Greek composers continued to write music for ancient Greek tragedies like Dimitris Mitropoulos, Iannis Xenakis, Michael Adamis, Theodore Antoniou, Stefanos Vasiliadis, George Aperghis, George Kouroupos, etc.

According to the composer and scholar Nikos Xanthoulis^{xiii} the music composed for ancient Greek tragedies since 1920 until nowadays, has two different approaches: the subjective approach of the composer and the scientific one. In the latter case, the composer has to build his composition upon the prosody of the Ancient Greek text and sound, using ancient Greek modes in order to restore the intonation and the meter and also to take into account the philosophical issues concerning the ethos of the text.

According to the musicologist John Daverio, ^{xiv} Greek composers who have composed music for ancient tragedy in the second half of the XXth century have used their cultural heritage from literature, the ancient Greek documents, the theoretical texts on Ancient Greek music, and the aesthetics about music written by Plato and Aristotle.

However, we may ask how can the theoretical research and personal excitement be translated into accomplished sounds? Would it possible and realistic for a composer to trace back and reconstruct the music from ancient Greece when it is so poorly documented? Who could guarantee the validity of the final result in both aesthetic and musical?

2. The emergence of *tragic* through electroacoustic music

The structure of Greek tragedy is based on dialogues and choral parts. Thus, the chorus may comment on what has already been said. Most tragedies begin with an opening scene, the prologue, which may be either a dialogue or a monologue. After the prologue the chorus enters into the orchestra singing the *parodos*. The *episode* (dialogue) is followed by the first stasimon. The alternation of episode and stasimon continues until the last stasimon, that is the exit scene (exodos). The exodos is in general a scene of dialogues, but as in the case of episodes, sometimes a few songs are included, especially in the form of a Kommos. Here is the structure of a typical tragedy (some tragedies have one more or one less episode and stasimon)³ : Prologue, Parodos, First Episode, First Stasimon, Second Stasimon, Episode, Second Third Episode, Third Stasimon, Fourth Episode, Fourth Stasimon, Exodos.^{xv}

Another important element viewed by composers who intend to write music for a tragedy is the *prosody* of the text. Using new technologies, prosodic elements can be more evident in today. From an aural point of view, the prosody involves variations in syllable length, loudness, pitch, and the formant *frequencies of* speech sounds^{xvi}. In Cued Speech and sign languages, prosody involves the rhythm, length, and tenseness of gestures, mouthing, and facial expressions. ^{xvii} Therefore, new technologies can be a useful tool in order to work on duration, amplitude, frequency and timber in sound synthesis.

Indeed, many composers for aesthetical reasons have changed the structure of the ancient Greek tragedy using traditional or non-traditional instruments in instrumental and electroacoustic music.

For example Xenakis's *Oresteia* (1965) written for a mixed and children's choir and a chamber ensemble, reflects the

composer's most successful attempt to write music for a Greek tragedy. For Xenakis, the natural melody of the original text was the only source of guidance and inspiration. He states: 'The poetics of the speech is the most important tradition we have inherited. None of the translations render or will ever render its strength'. Almost twenty years later Xenakis added two more parts: *Kassandra* (1987) and *La Déesse Athena.*^{xviii}.

Christou ^{xix} Jani introduced new techniques in the vocal treatment of the choir in most of his tragedies^{xx} and he used electroacoustic music on tape in order to reinforce the tragic meaning of the text. The electroacoustic material consisted of concrete and electronic sounds creating a kind of a soundscape that introduces the audience into a subconscious world. This world is emerged by the orchestration, the vocal mutations of the chorus ^{xxi}, the electroacoustic means and it has always been maior consideration for а composers (music represents the mean for liberation of the most profound forces hidden inside man" as also "music must be carrier of libido of a terrible psychic energy^{xxii}

Michael Adamis xxiii, the precursor of Greek electroacoustic music^{xxiv}, initiated electronic means for the voices in contrast to conventional sounds. In his compositions for ancient tragedy (1963-1974)^{xxv} he introduced a new aesthetic approach for the vocal parts (spoken or For example in his sung). work "natural Prometheus (1974) the treatment" of the choral singing acts complementary "electronic to the treatment" of the tape sound by unbodied voices and voice-like sounds. This leads to a phenomenal soundscape achieved by the use of both electronic and conventional techniques which reinforce the tragic elements of the text. By the decomposition of the voices in a continuously transforming electronic environment- as the text sung by the choristers or the coryphée- looses its semantic quality and the language is structured upon quasi-vocal sounds which gradually acquire a new, pure sonic, dimension. In this way, Adamis balances between the real (the Melos sung by the chorus) and the unreal represented by the electroacoustic medium. He thus underlines the semantics of the text by preserving its prosody.

3. Functionality of electroacoustic music in contemporary tragedy (point of view Th.Terzopoulos/ P.Velianitis)

The composer P. Velianitis ^{xxvi} has worked on ancient drama performances - with the director Theodore Terzopoulos since 1991. This collaboration was very fruitful in terms of musical creativity. He worked on theories that concern the spatiality of music and that of the *soul*

"Distinguishing the recorded music playback from the electroacoustic music we realize the second one gives the opportunity to keep an eye open, closer "ethos" xxvii of the text. to the Independently of specified styles and techniques, the challenge transforming symbolism in abstract sound is risky and if stylized becomes quide to superficial performance so often in the (recent) past. Aiming to approve this interaction between music structure - aesthetic approach and text - sound, form comes to be a servant of nowadays needs in realizing an ancient tragedy.

As the technological contribution in sound editing and composition leads to new aesthetic and structural quest it was expected to influence the music for theatre. Through these new tendencies the limitation in serving the text is also the liberation to give the abstract and symbolic light of it. As directors wade into ancient tragic theme through contemporary hypocritical techniques and directing views, composers are capable to rely upon new technology. Aesthetical approach to an ancient drama performance differs from one theatrical director to the other and consequently, influences the composer's view and his idiomatic musical language combined. However, the development of music technology pulls composers in the quest of new expression means concerning to the music for ancient drama too.'

3.1 The emergence of the tragic through the sound sculpture ***

The new sound analysis - synthesis tools give the opportunity to composers to enter deeply into the structure of sound and transform parameters linked to his style. As sound waves diffuse in space, its fluid limits depend on the weakening of the amplitude of the source oscillation affecting the oscillation of the means transmitted and the tolerance of it in resonance. Hence, sound exists continuously transformed into space and can be controlled through its productive sources. This is an extremely useful tool for composers in order to realize the properties of sound and work on them.

Another relevant topic is that of spatial music. Until recently, sound was realized as static, until the sound technology gave the possibility of a pseudo-movement using the amplitude or the phase difference between the separated transmission channels (in stereo or multichannel systems). This pseudo-movement, in electroacoustic music, is a way to develop a sound choreography. This led to sound design techniques particularly common today in multimedia performances. As sound technology progresses, new sound systems are able to reproduce more realistic orbits of virtual sources in space. These two parameters (space and movement) are very similar to those of a live performance by actors. Music has a role itself with its own possibilities during a performance.

Keeping mind the different in approaches to sound objects in both concrete and electronic music, we can that these two categories claim (symbolic and abstract sound) are specific tools for composers if they wish to give to sound a functionality that influences the process of a performance. For instance, Bedouins' loud vociferation in desert is a concrete sound object that takes symbolic character predicting serious future events. However, it is important that sound editing is possible to change its original structure, and thus being devoid of any symbolic meaning.

Based our analysis on these two categories the electroacoustic sound material can be classified in four subcategories:

1. Natural sounds recorded and reproduced keeping the reference of the original source

2. Natural sounds recorded and edited so that the source is unrecognizable

3. Artificial (synthesized) sounds imitating natural ones and

4. Artificial sounds (synthesized) referred to the loudspeaker as the original source

Of course composers are not strictly limited to those categories. They are free to choose their own compositional means and express their thoughts.

3.2 Parameters of structuring "soulscapes" in Modern Greek tragedy

Theodore Terzopoulos' xix view on the prosodic recitation of the text is adjusted to his own techniques, combining the original ancient text with translated parts of it. It is worth commenting that sound helps actors to express their tension on the stage when needed. However the sound object must be in accordance with the "ethos" of the text, mediating between the text and its realisation on the stage by the actors. This is succeeded by creating patterns combining and developing sounds classified at the categories described above. It is worth pointing out that there must be an archetypal functional form to affect the performance on stage and reflect the "ethos" of the text as needed.

In concluding, we could say that the aesthetic parameters of composing music for an ancient drama under Terzopoulos' direction are the following:

1 Approaching the prosody of the text: The most important meaning of the text is reflected in the words or lines. The recitation of the text has a distinctive dramatic style, focusing on the prosodic sonority, especially on words that their sound imitates either the original sound of the source-object or the vocal expression of temper. This can be better achieved by using long and short vowels and the accent of the words. These words or lines are recorded and edited in order to make up concrete sound material classified in subcategories 1 & 3 as described above. The structure of music patterns is sometimes based on the prosodic recitation of the words or lines or on intonation. These music patterns are rare in performances and sometimes take a symbolic character without excluding the stimulation of subconscious. The recitation of the translated text results in a spoken language filtered by the techniques developed by Terzopoulos.

2 Approaching the "ethos": It is important sometimes to underline acting with sound patterns that lead to subconscious dynamics of personality. This is achieved by rules of the "ethos" as known from ancient music theory. The three modes of ancient Greek harmonies: the dilative, the constrictive and the quietened one, must be followed by patterns based on contemporary sound experiences. Sound sculpturing is helpful to create such patterns consisted of abstract or concrete sound material. For instance the recorded sounds of breathing, occasionally mixed with sounds produced by clapping the hands towards the open mouth and abstract sounds, can be classified in subcategories 2 & 4 as described above. High frequencies played in a continuous crescendo may generate emotions such as agony and fear. On the contrary, weak and static sounds help to tranquillize the audience. 3 Approaching the form: Aristotle's description of the ancient tragedy in his "Poetics" is generally considered as a good starting point for those wishing to work on music for Greek tragedies. However, this is not strict so we could refer to conceptual performances with minimalistic elements based on ancient Greek tragic theme than ancient Greek tragedies themselves. This approach liberates both directors and composers to explore better expressive means and create "soudscapes". As Jani Christou, an eminent composer in this direction, used to say: "Where there is no soul, music creates it. Where there is soul, music sustains it".

Conclusion

Since the beginning of XXth century more than 1620 Greek composers have composed music for ancient Greek dramas; most of them have been based upon the prosody of the text, the ancient Greek modes and the Byzantine melos; others, especially on the second half of the century, have introduced contemporary vocal techniques which exalt the tragic through various means of vocal expression. Since Jani Christou and Mihalis Adamis have used the electroacoustic medium in ancient Greek tragedy in the '60s, many subsequent composers have gone further using the sound technologies for composing music That is the case for the for dramas. composer P. Velianitis who has used electroacoustic music not only from a pure structural aspect but from a contextual one, creating "soulscapes" through microstructures of sound. These "soulscapes" introduce new aesthetics on multimedia performances: rethinking the composition of music for tragedies using electroacoustic medium and the microvariations of the sound respecting the prosody, the ethos and the form.

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Endnotes

¹ In *Poetics*, Aristotle gave the following definition in ancient Greek of the word "tragedy" (τραγωδία) : έστιν ουν τραγωδία μίμησις πράξεως σπουδαίας каі τελείας, μέγεθος εχούσης, ηδυσμένω λόγω, χωρίς εκάστων των ειδών εν τοις μορίοις, δρώντων και ου δι'απαγγελίας, δι' ελέους και φόβου περαίνουσα των τοιούτων παθημάτων κ aθap σ v which means Tragedy is an imitation of an action that is admirable, complete (composed of an introduction, a middle part and an ending), and possesses magnitude; in language made pleasurable, each of its species separated in different parts; performed by actors, not through narration; effecting through pity and fear the purification of such emotions.

² Friedrich Nietzsche , *Die Geburt der Tragödie aus dem Geiste der Musik, (1872), Penguin Editions, London,1993*

³ Ulrich von Wilamowitz-Moellendorff, *Qu'est-ce qu'une tragédie attique ? Introduction à la tragédie grecque*, Les Belles Lettres, 2001

⁴ Friedrich Nietzsche , *Die Geburt der Tragödie aus dem Geiste der Musik, (1872), Penguin Editions, London, 1993*

⁵ See in Egert Pöhlmann & Martin L. West, *Documents of Ancient Greek Music*, Clarendon Press - Oxford, 2001

⁶ The Oxyrhynchus hymn (or P. Oxy XV 1786) is the earliest known manuscript of a Christian hymn to contain both lyrics and musical notation. It is found on Papyrus 1786 of the Oxyrhynchus papyri, now kept at the Papyrology Rooms of the Sackler Library, Oxford. This papyrus fragment was unearthed in 1918 and the discovery was published in 1922. The hymn was written down in about the late 3rd century AD. The musical notation may imply the use of instruments at a much earlier time than some groups have believed, but it should still be noted that numerous pre-Nicene fathers were apparently opposed to the use of music in the Church.

⁷ The Delphic Hymns are two musical compositions from Ancient Greece, which survive in substantial fragments. They are dated c.138 BC and 128 BC. The earlier of them, the First Delphic Hymn, is the earliest unambiguous surviving example of notated music from anywhere in the western world.

⁸Gonda Van Steen: "The World's a Circular Stage": Aeschylean Tragedy through the Eyes of Eva Palmer-Sikelianou," *IJCT* 8 (2001-2002). pp. 375-393.

⁹Influenced by Nietzsche's *Birth of Tragedy*, she stressed circular and centripetal movements, as her choreography demonstrates.

¹⁰ Constantinos Psachos had a manifold scholarly and artistic personality. His work and his contribution to historical, scholarly and musicological research in the three areas of traditional Greek musical creation (ancient, Byzantine and demotic) played an important role in the development of Greek music. Konstantinos Psahos used also in his performances a Keyboard instrument, named Panarmonion, in order to play the intervals of the $H_{\chi o \zeta}$, pthores and chroes of Byzantine music (42 keys per octave and 2000 pipes)

¹¹ Sophocles' tragedy was performed in the orchestra of the Epidaurus Ancient Theatre without sets or lighting (the site was without electricity at that time) in the late afternoon sunshine. The Modern Greek translation was produced by I.N. Gryparis, the costumes were designed by Antonis Fokas, and the chorus was trained by Lucia Sakellariou. Katina Paxinou played Electra, with Eleni Papadaki taking the role of Clytemnestra.

¹² Dionysus Since 69: Greek Tragedy at the Dawn of the Third Millennium - Σελίδα 289 Hall, F. Macintosh A. Wrigley, Oxford university Press, London, 2004, pp370-380

¹³Nikos Xanthoulis: Η μουσική του μέλλοντος έρμα του παρελθόντος (text in Greek),www.eem.org.gr/composers/210/ΕΙΣΗΓΗΣ Η www.eem.org.gr/composers

¹⁴ Daverio John: *the legacy of Greek antiquity as a stimulus for the musical avant-garde*, in symposium proceedings of music and ancient Greek international meeting, 1996, European Cultural Center of Delphi, Livanis publishing, Athens 1999, p.283-299

¹⁵ Some tragedies have one more or less episode and stasimon

¹⁶ Prosody is notoriously difficult to convey in writing, which is one reason why, for example, email may so easily cause misunderstanding. Orthographic conventions to convey prosody include punctuation such as commas, exclamation marks, question marks, scare quotes, and ellipses; forms of emphasis such as italic, bold, and underlined text; and emotions.

¹⁷ Devine A. M. , and L. D. Stephens, *The Prosody of Greek Speech*. New York: Oxford, 1994.

¹⁸ Vagopoulou Evagelia: The Universality of Xenakis' Oresteia in cicm.mshparisnord.org /Colloque Xenakis/ papers/ Vaggopoulou.pdf. The author comments: *Kassandra* is based on the rhythm of the ancient text, on prosody, while in *La Déesse Athéna*, Xenakis does not seem to rely so much on the natural stress of the words, but he makes the words follow the rhythm of the music, creating an unusual and idiosyncratic melodic effect. His self-exploration concerning the Greek prosody and the potential reconstruction of the Mycenaean language9 in *Aïs, Kassandra*, and *La Déesse Athéna* shows that Xenakis was equally interested and prepared to pursue research in this area as well, broading the scope of his research interests

¹⁹ Jani Christou (1926-1971). www.janichrisotu.org. A genius Greek composer of Avant – Guard "*The function of music is to create soul, by creating conditions for myth, the root of all soul. Where there is no soul, music creates it. Where there is soul, music sustains it*". (Jani Christou Chios, 23rd Aug 1968)

²⁰ Persians (1963), Frogs (1965), Prometheus bounded (1965), Oedipus Tyrannous (1969)

²¹ Anastasia Georgaki: Allégories et mutations vocales au sein de la tragédie Grecque moderne a travers les oeuvres de Yannis Christou (1926-1971) et Michael Adamis (1929), dans « la voix dans la dramaturgie contemporaine », ed. Giordano Ferrari, ed. Harmattan, 2008 (a paraître) ²² www.janichristou.com The function of music is to create soul, by creating conditions for myth, the root of all soul. Where there is no soul, music creates it. Where there is soul, music sustains it. Jani Christou Chios, 23rd Aug 1968

²³ The studies and musical trajectory of the composer are reflected in the conception and the structure of his works. Deeply affected in his first steps by the Byzantine musical tradition and its spiritual potential, as well as by the contemporary musical trends (from the electronic sound to the avant-garde techniques of composition), the composer has created an extraordinary personal style which bridges, in an ingenious way, Tradition and Novelty.

²⁴ Georgaki A., Loufopoulos A.: «Spirituality in the Electroacoustic works *Apokalypsis, Tetelestai and Kratima* of the Greek composer Michael Adamis». *New Sound, International Magazine for Music.* Spectra, Belgrade, 2000 (σε δύο γλώσσες: αγγλικά και σἑρβικα).

²⁵ Radioplays: Aias (1960), the banquet (1960), Phèdre (1961) et Iphigénie (1960)

P, tragédies qui sont interprétées au théâtre d'Epidaure comme «Sept sur Thèbes » (1968), Iphigénie (1970), Orestes (1971) et Prométhée enchaîné (1974).

²⁶ Panaghiotis Velianitis is one of the main composers of the Centre of Contemporary Music Research (CCMR) in the '90s, where he was specialized in the system of UPIC developed by Iannis Xenakis as well as in computer music, sound synthesis and composition. He has written music movies, animation and many theatrical performances of ancient Greek drama and modern theatre too. From 1986 participates as a composer in concerts of modern music in many countries. Since 1991 he works under the director Theodoros Terzopoulos in ancient Greek drama performances.

²⁷ The ways in which characters in Greek tragedies were constructed is important when considering ethos, or character, in Greek tragedy. Augustus

Taber Murray explains that the depiction of a character was limited by the circumstances under which Greek tragedies were presented. These include the single unchanging scene, necessary use of the chorus, small number of characters limiting interaction, large outdoor theaters, and the use of masks, which all influenced characters to be more formal and simple. (Murray, 53-4) Murray also declares that the inherent characteristics of Greek tragedies are important in the makeup of the characters. One of these is the fact that tragedy characters were nearly always mythical characters. This limited the character, as well as the plot, to the already well-known myth from which the material of the play was taken. The other characteristic is the relatively short length of most Greek plays. This limited the scope of the play and characterization, so that the characters were defined by one overriding motivation toward a certain objective from the beginning of the play. (Murray, Augustus Taber. "Plot and Character in Greek Tragedy". Transactions and Proceedings of the American Philological Association, Vol. 47. (1916), pp. 51-64. JSTOR.pp 54-6)

²⁸ In our case **Sound sculpture** is used in the sense that sound is manipulated in such a way as to create a sculptural image as opposed to temporal form or mass.

²⁹ Theodoros Terzopoulos is an internationally acclaimed Greek theatrical director who has popularized ancient tragedy all over the world. More information on his aesthetics in: *Theodoros Terzopoulos and the Attis Theatre*, Athens: Agra Publications, 2002.

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