The Acoustical Mask of Greek Tragedy

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According to our concept of the acoustical resonance mask, the form of the tragic mask is connected to its function as a resonance chamber for the voice of the actor. The entire construction of the mask leads the actor towards a state of increased energy and presence, during which the actor senses the experience of a bodily and vocal expansion—a state of communication. In this way, the mask creates the necessary corporeal and mental conditions for the metamorphosis of the actor and it allows him (or her) to become a fractal of the common body of the chorus. The mask is a resonance chamber, a link in a chain of sound that starts with the actor and ends with the theatre space. In this paper, we would like to present the basic elements of the research and the method we have developed together, which is our concept of the acoustical resonance mask. Our concept, and the creation of a theatrical method for its use, is based upon the archaeological evidence, the textual corpus of Greek tragedy and ancient sources, as well as on contemporary theatre practice. A major aim of this work is to extend the principles of the acoustical tragic mask to contemporary theatre. That means both to the contemporary performance of Greek tragedy and to particular plays that may have the poetic, dramatic and dramaturgical qualities needed for the text to communicate with the mask and become enriched by it, thereby creating modern forms of masked theatre.

The representations of masks and theatre scenes during the 5th century BC show masks that covered the entire head. They were not much bigger than the human head, and had a very intense, concentrated, extroverted expression without pronounced facial features. The mouth was open; the eyeholes were round and small. During the 4th century the masks became more naturalistic following the aesthetics and art conventions of the era but kept the same intense, extroverted and enigmatic expression.

Plate 1


The Mask of Kenosis

The appearance of the tragic mask of the classical era is a representation of a body/mind state of being. A state of meditation is created within the mask wearer, either by focusing the gaze at a single point or by the voice—or more specifically—by the cries, found in the tragic texts as original, archetypical sounds; words without lexical meaning and usually not translatable. That part of vocalisation is able to evoke an enormous range of emotional connotations. The cries correspond to different resonance chambers in the human body and lead to a metamorphosis. This has a physiological effect on the actor: the human face acquires the appearance of the tragic mask. The face radiates great intensity and presence. The face is expressionless, in a state of total presence, a state of emptiness. The tragic mask represents this state of mind and this is the state of mind the actor has to assume on stage. We define this state of body/mind as a state of kenosis (emptying, depletion) and the tragic mask as the mask of kenosis. The mask has no expression (though is by no means a neutral mask), but it is not a character mask either. The mask of kenosis has
no physiognomic traits that make it possible for the audience to define the character of the stage figure through the appearance of the mask. The mask does not present on stage any fixed human types. Instead, its features correspond only to indications of sex, age, ethnic origins, social status and other dichotomies such as human or divine, living or dead.

Character drawing is not created on stage by the mask at the beginning of the performance but in the mind of the audience and by the totality of the performance at the end of it. The actions define the character drawing of the roles. Aristotle defined tragedy not as a representation of men, but of action, and tragedy’s end is not the representation of character, but the representation of action, because it is men’s actions that make them happy or the opposite. For us, that means the actor seeks the actions and not the coherent personality that commits them. The task of the actor is to inhabit the actions with such presence that the stage figure becomes alive. The mask does not give to the audience any key to read the character, but it becomes a projection screen for the actions of the role. The mask creates an empty space for the reflection of the spectator. Of course, the lack of character is connected to the fact that at a textual level Greek tragedy operates not on the level of psychological realism and the idea of characters, but it depends on archetypes. The human being was an organic part of the community, without the psychological autonomy that marks modern man.

Mask/costume design: Thanos Vovolis. Stage director: Peter Oskarson. Photo © Thanos Vovolis.

A Resonance Chamber for the Actor’s Voice

The mask encloses the entire head and this form creates an extra resonance chamber for the voice of the actor. An acoustic phenomenon is produced in the space between the actor’s head and the mask. This effect has been described by Vitruvius as the only positive acoustic phenomenon that occurs in Greek theatres—namely-consonance: "consonance is the process, whereby, due to suitably placed reflecting surfaces, the voice is supported and strengthened when two identical sound waves arriving at the same point at the same time, combine to produce the sum of their effects."

The mask creates consonance and amplifies further the natural head resonator of the actor. The whole body is capable of resonance but the most important resonators are the head resonators because they produce harmonics that can easily pierce through space. The mask becomes an instrument for the actor to control the volume of the voice, the direction, the rhythm, the articulation, and the tone. This helps to achieve maximum resonance for each vowel and clear definition of the consonants, which is crucial in large spaces, because the energy content in consonants is small and they are easily muffled, although they are critical for speech intelligibility. The mask is also an instrument to project the voice into space. Speech becomes powerful, clear, and attractive. The entire theatre space ‘answers’ to the actor; it vibrates. The mask helps the actor develop an acoustical energy field, an acoustical aura that surrounds him or her.

The skills required for actors and orators in ancient Athens were strong voices, capable of modulating volume, pitch and rhythm. Actors should be able to recite as well as sing. We have evidence that ancient actors trained carefully, even dieting and fasting, in order to keep their vocal instruments trained. Aristotle defines the art of acting as a matter of voice, “because words are imitations and the voice also, which of all our parts is best adapted for imitations.”
The Small Eyeholes of the Mask

The small size of the eyeholes plays a significant role by enabling them to function as lenses for the gaze of the actor. As the gaze is directed through this construction, the optic field becomes very narrow and after a while the actor has the feeling that he is looking through a single eyehole—a ‘third eye’—placed in the area between the eyebrows. This construction puts the actor in a meditative state and he develops a more conscious feeling for the body’s axes, the spine (vertical) and the pelvic area (horizontal). The minimisation of sight leads to a maximisation of listening to the other actors, enabling a different awareness of their presence based not so much on seeing but on hearing. It leads the actor to the act of *akroasis* (conscious and active listening).

The Mask of the Chorus

In the context of the play the chorus is a multi-voiced persona, a single organism and not simply an accumulation of individuals. All the members of the chorus have identical masks. We have to think what meaning can be derived from the presence on stage of fifteen bodies with the same mask, the same stage face. This is unique in world theatre. Only very recently, during the last century, has science (and specifically quantum physics, biology and genetics) introduced ideas about human beings that correspond to the presentation by the tragic chorus. In quantum physics, electrons and indeed all species of elementary particles exhibit no individuality. In biology, different individuals in a certain species differ slightly, though not so much as to pass certain bounds that define the species. In genetics, human beings are genetically very like each other and differ only in around 0.1% of our genetic code; each of us is genetically like the other 99.9%. The chorus presents the two unmistakable traits of the theory of fractals: self-similarity, where every part of the fractal resembles every other part, and scaling, where the fractal pattern is made up of smaller copies of the same pattern. In the complex interweaving of identity that joins us, each of us may be an aspect of the other. To exist is to participate and to be interdependent of each other. These ideas about the human being have never been better represented on stage than with the presence of the tragic chorus. The tragic chorus lacks individuality and the chorus mask/costume stresses this fact. It unites individuals but at the same time creates automatically variations of its form by the ways these unifying elements (mask/costume) meet the actual bodies of the chorus members. The mask always keeps alive the tension between the one and the other, the whole and the part. Paradoxically, it is easier to develop a rhythmic movement pattern together with other people when all are wearing masks, because the mask prevents them simply from imitating each other. The only alternative left to the performer is to listen to the voice and the breath of the others and in this way, little by little, develop a common rhythm, a common breath, usually based upon the breath of the text. Everybody then depends on each other and develops a greater sensitivity for each other. This is how a tragic chorus is born. Common breath and the creation of a common body are the basis of the chorus and the mask is the medium for the birth of it. While other kinds of theatre use the mask as a means to present character differentiation and human behaviour, the mask of the tragic chorus focuses not on the differences but on the unifying aspects of the human species.

The Mask and Role Doubling

Because of the mask and the convention of the three actors playing all the roles, each actor had the possibility to play many different, contradictory, complementary and deeply interrelated roles, involving moves between extreme dichotomies: male/female, sacrificer/victim, human/divine, free man/slave, noble/commoner, citizen/foreigner, living/dead. These roles together created a field of interwoven relations and a unity that surpassed each individual role—a totality much bigger than the sum of its parts. In *The Oresteia*, the actor playing Clytemnestra in *Agamemnon* has the potential also to play Electra in *Libation Bearers* and the Ghost of Clytemnestra and Athena in *The Eumenides*: the same actor plays victim and sacrificer, mother and daughter, living and dead, human and divine. These roles are interrelated within the frame of a greater cosmological cycle and present levels that underlie the connection between them.

One of the basic assumptions in our work with the actors is the development of the greatest possible range of their voice. We have as a starting point the principle of the three actors who with the masks play all the roles. In accordance to this principle, each role uses another part of the total vocal range, analogous to the role.

Plate 4 Sophocles, Oidipous at Colonos, Helios Theatre, Segobriga Festival, 2000.

The Mask and the Actor

The issues that the actor comes across in his encounter with the tragic mask are very specific. The method we have developed is based on answering these issues, which fall into four basic units:

1. **Perception of Time.** The creation of a common perception of time on an individual and group level and the creation of a consensus about the passing of time that is going to be common for all during the theatrical act.
2. **Perception of Space.** The changes in vision imposed by the mask alter the perception and orientation in space. Through the actor’s physical and mental presence, the mask transforms the actual acting area into a mythical *topos*, the symbolic space where the dramatic act unfolds.
3. **Perception of Sound.** The actor has to learn to perceive in an active way qualities of sound, such as pitch, intensity, volume, tone, music, melody, timbre and sound colour. The actor must develop an active, and conscious listening, i.e. *akroasis*. Production of sound/speech and aspects of speech, including text, metre and rhythm must all be distinguished. The goal is creation of common breath, and particularly the creation of the common body of the chorus.
4. **Choreography, or geometrical analysis of movement.** The actor wearing a mask immediately is transformed into a living sculpture and a masked chorus becomes a sculptural composition that continuously and perpetually evolves on stage.
The very existence of this sculptural composition presupposes a different kind of movement and a different kind of development of the movement on stage: steps (bemata), positions of the arms and the hands (cheironomia and schemata). The variables of choreography include the creation of immobility, kinetic chaos, kinetic canon, kinetic unison and kinetic dialogue.

The combination of all these elements creates the act of theatre. The synthesis of all the elements presented above into a unity—body, breath, voice, rhythm, metre, logos and movement—with the mask as the basis and the focal point of this synthesis. The actor’s first metamorphosis is to become a part of the chorus and then to transform into the role.

The experience of the actor behind the mask is that he is present in his body and at the same time he is aware of observing himself from the outside. Behind the mask, the actor develops a double awareness. Instead of the expressivity of the modern actor, we can talk about the actor’s existence on stage and his metamorphosis.

Plate 5 Sophocles, Oidipous Project, Dramatic Institute, Stockholm, 2003.

Mask, Mimesis, and the Text

The entire construction of the mask leads the actor towards a metamorphosis. A fusion occurs between the actor and the mask, and a new reality, a new organism, comes into existence: an organic Gestalt and mimesis. On the level of the performance the text is dependent upon the presence of the body, upon the energy of the actor so it can be transformed and participate in this new reality. It is through the body that tragedy becomes understandable and unbearable. If tragedy is a theatrical form based upon the suffering human body, then the voice and the speech constitute one of the basic elements of the presence of the body. The mask is a channel for the creation of this new organism.

The mask with its lack of a definite expression and with its open face becomes a projection screen for the text. Every movement, every tone, every change of the voice and body alters the experience of the mask. These continuous changes correspond to the chain of perpetual changes that are contained in the text. The poetic texts have the capacity of emanating constantly varying images in the imagination of the audience. The mask never illustrates these changes directly. The mask is in continuous dialogue with the text, in continuous tension, resisting the text. The mask becomes a projection screen on which the text is projected for the audience. It becomes the topos where the energy of the voice and the body meet, the topos upon which the gaze of the audience and the tragic text meet.
The Mask and the Theatre Space

The theatre space is the unity created by the acting space and the space for the spectators. Up to now, we have emphasised the close interrelation between the mask, the voice, the metamorphosis of the actor and the creation of the chorus. Now, we discuss the relationship between the mask, the voice of the actor and the theatrical space.

If we follow the development of the theatre architecture from the 5th to the 4th century BC, it is obvious that there is a desire to develop a theatre space with better acoustics and better visibility. Theatres were usually built on the side of a hill, with a hollow recess that sloped down at an angle of approximately 45 degrees. They generally had quite good acoustics. The choice of place gave a shape to the auditorium that matches almost perfectly the directivity of the human voice, which presents an almost unvarying sound distribution within the angle of 180 degrees. The theatre of Dionysus in Athens seems not to have had such excellent acoustics but it underwent many changes during the centuries and is not well preserved. The dimensions of the theatre of Dionysus best resemble the dimensions of Epidaurus, which is very well preserved. The development towards better acoustics culminates with the theatre of Epidaurus, which is not representative of the 5th century BC theatre buildings. It contains in its architectural form the essence of the concept of theatre as conceived and developed by the ancient Greeks. It has remarkable acoustics for speech intelligibility, solo delivery or unison chanting, and for solo musical instruments. Rather than a single factor it is the cumulative effect of many refinements that contribute to its acoustical excellence. Both visual and acoustic criteria dominate the design of the theatre. Reflected sounds reach the listener within 50 milliseconds after the initial sound, and produce in the listeners’ consciousness a single acoustical image of greater intensity and enhanced quality than does the direct sound alone. The interest the ancient Greeks developed in acoustics surpasses the plain level of simply hearing and understanding of the dramatic texts. It suggests not only a wish to achieve good acoustics but also to express a desire to create an architectural unit, a theatre building that can function as a huge musical instrument oscillating in harmony with the human voice. The mask is part of this: it is the first external resonance chamber, a link in a chain of sound that starts with the actor and ends with the theatron and its surrounding landscape.

Greek interest in acoustics and in the human voice could be due to sound as a major creational and healing form. Modern scientific research describes the world and the cosmos in terms of rhythm and sound. Sound consists of vibrations or oscillations in particles and these vibrations are found throughout the universe. These insights stemming from discoveries in physics suggest that the Earth and the universe not only produce vibrations, but in fact are vibrations. Sound causes changes on the physical, the emotional, mental and spiritual plane.

This way of perceiving the world can be applied to the theatre. Sound is a force and a basic component in theatre. Theatre is an acoustic phenomenon. In contemporary theatre character and plot are still two dominant categories appealing to the logical and emotional level of the audience and its desire to understand and feel. Both are connected with the semantic levels of language, but they do not necessarily awaken the other more subtle levels of human consciousness that we propose theatre did for the ancient Greeks. Based on the energy of logos and the vibration of sound, theatre restores the soul and the body. It provides a way to bring people to peace, to restore the body/mind balance, to purge, to purify and to heal. It provides a democratic space, a space that through the exchange of energy (osmosis) creates the unity of the audience and the actor in one body. Theatre becomes the embodiment of the principle of catharsis.
The Masked Theatre of Tragedy

Working with the acoustical mask, the actors go through a comprehensive re-training that leads them into another way of working, into another area of work. The acoustical mask is the instrument that creates a new web of relations that involve the text, the actor, the chorus, the creation of the roles, and the relationship between the stage and the auditorium. Techniques of working with the mask that have been created during the 20th century are mostly based upon the assumption that the mask is a device for the development and liberation of the expressive potential of the actor.

Our method requires that the actor find freedom within a well-defined form. In our work, it is the actor who has to accept and become the instrument of the mask. The actor behind the mask accepts the mask, adapts himself to the restrictions required by the mask, reveals himself thereby, and achieves creative freedom. The development of the expressive potential of the actor follows for free! The mask is an indispensable part of this art form, where the actor, the text, the voice, the mask, the theatre architecture, the audience and the landscape, each operating around and inside the other, together create this art form we call theatre.

Plate 7 Euripides, Bacchae, National Theatre of Iceland, 2007.