

The Effect of Structure and Tonal Quality on the Aulos's Role in Accompaniment of Ancient Greek Sport

In today's society, music plays a role in athletic competition as a means to fire up the crowd for the home team. For example, at Friday Night American football games, the fight song played by the marching band when the home team scores a touchdown mingled with the screams of fans often amounts to a heightened sense of awareness by football players to perform and win. In ancient Greek athletics, music in athletic competitions was also used as an aid to win athletic competitions in certain events. One such instrument that was used to accomplish this was the aulos. Looking at the structure of the aulos and its tonal quality as well as its depiction in artwork and literature shows that it represents an important part of Greek athletics as a means to aid in military and professionalized training.

To begin to understand how the aulos fits into the world of ancient Greek athletics, information about the actual structure of the aulos must be examined to understand possible reasons of why some of the customs of using it came about. As shown in figure 1.1, the aulos is a double pipe that is held out in front of the player and is actually a reed-blown instrument, not the flute that many of scholars have translated from the Greek word αὐλός. According to figure 1.2, each pipe of the instrument is usually made of five separate parts that consisted of a body which is usually found in two parts, two bulbs, and a reed mouthpiece.



Figure 1.1 Aulos player. Attic red-figured kylix, ca. 490 BC. From Vulci, Brygos (potter, signed)

Figure 1.2 Diagram of the aulos (drawn from John G. Landles book *Music in Ancient Greece and Rome*)

The five parts of the aulos are thus removable and in vase paintings and coins such as one displayed in figure 1.4, the aulos player keeps a bag with spare pipes ready. The fact that these spare auloi do not contain the reed head suggest that the reeds were removed. There is often the suggestion that there is a separate compartment for the reeds. A red-figure vase painting that was excavated at Kameiros and catalogued as London E171 by the British Museum of London suggests that there was a small oblong box approximately 12 x 4 x 4 cm large that carries the reeds and was also known as a *glottokomeion* in Greek (Landles 27).



Figure 1.3 Coin featuring aulos player, Phrygia, Apameia, c.3rd century AD



Figure 1.4 Depiction of exercises at Gynasium; Athenian red-figure cup ca. 500 to 450 BC. Brygos. Vulci. Würzburg, Universität, Martin Von Wagner Mus., L479

When examining the diagram in figure 1.2, which is based off of scholarly observations of vase painting and reliefs of aulos players in antiquity, suggest that there are six holes,

five on top of the aulos and one underneath where the thumb is played. Fragments of auloi that have been found show that these holes except the sixth hole were slightly gouged toward one side of the instrument, possibly indicating that they were specially designed for either the left or right hand (Landels 34). This means that the inclusion of the sixth hole at the bottom of the aulos was possibly a vent hole because it could not have been covered by the fingers. Thus, the arrangement of the holes on the aulos between holes I through IV could not have been very large. A reason for this claim is that to play the aulos and create different pitch qualities, the aulos player would have to be able to support the aulos with his little finger under the pipe when he did not have the thumb over the thumb hole. This enabled the aulos player to play an arrangement on the aulos of six natural notes and raise the pitch of five of those notes by slight amount. According to John G Landels in his book *Music in Ancient Greece and Rome*, this slight raising of pitch occurred when the aulos player would raise the finger slightly from the edge of the next hole above (so an example is that to raise the pitch of the II note, one would slightly raise the finger over the III hole) in a Greek term denoted as a *diesis* meaning ‘leak’ or ‘escape’ (35). However, in fragments of the ancient Greek music such as those that can be currently found at Yale University and the University of Michigan, the singing accompaniment to the aulos have a different range of pitch for different songs, even on the same papyrus.

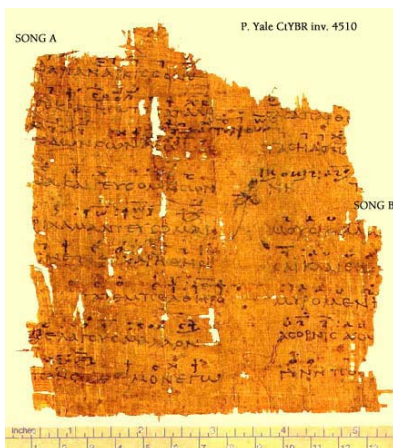


Figure 1.4: Yale musical papyrus P.CtYBR inv. 4510

For example, the "The Yale musical papyrus" P.CtYBR inv. 4510 shown in Figure 1.4, has two different songs that are a part of the papyrus entitled by scholars as "Song A" and "Song B" (Johnson par. 5). When listening to the musical renditions that Professor of Classics at the University Cincinnati William A Johnson has done, Song A has the musician in a minor scale formation where there are intervals of a whole tone followed by a semitone followed by another whole tone, meaning that the song is indicative of the modern and medieval Dorian scale mode. When listening to the musical rendition of song B however, there is a major tone where there are intervals of two whole tones followed by a semitone, which is indicative of the modern and medieval Phrygian mode. This leads to a possible conclusion that the spare pipes that are depicted in the relief of the aulos player in figure 1.1 might not just be spare pipes in case the musical instrument breaks, but pipes that play different modes that musicians could switch out during the piece. In fact, a surviving fragment from the Greek writer Pausanias on his observations of a statue of Pronomus in Boeotia has indicated that this was the case:

For a time, auletes had three types of auloi. They played Dorian aulema on one, different auloi were made for pieces in the Phrygian harmonia, and the so-called Lydian aulema was played on the other auloi. Pronomus was the first to have made auloi that were suited to every species of harmonia and the first to play on the same auloi mele that differed to such a degree. It is also said that he delighted his audience exceedingly with the form of his countenance and the movement of his entire body. He also composed for the Chalcidians on the Euripus a prosodion to Delos. So the Thebans erected this statue here as well as one of Epaminondas, the son of Polymnis (qtd in Mathiesen 183-184).

Historians have placed Pronomus having existed and developed an aulos that combines the three modes of Dorian, Phrygian, and Lydian in the middle of the fifth century BC, specifically around the 430s (Landels 34). Thus, the existence of the three pipes might be the reason why the aulos player in figure 1.4 is carrying multiple auloi while the aulos

player on the coin relief in figure 1.3 has no bag with him, indicating that this change in instrument structure has rendered the need for multiple auloi unnecessary.

It is important to note that the modes that an aulos player utilized are the same modes that a kithura or lyre player utilized, suggesting that it was possible that the use of the aulos rather than the kithura or the lyre as accompaniment in ancient Greek athletics arose from tonal quality. According to the Greek philosopher and botanist Theophrastos' in his work *Researches into Plants*, in the earlier development of reeds for aulos-players, the reeds were cut about mid-September in the second year of their growth as long as the marsh in which they grew had not dried out during the season (Landels 28). Then the reeds were supposedly not useable for a number of years (the specification of this is unknown) because the player would have to configure the reed in such a way that it would, as Theophrastos puts it, "tend to close up easily" in an 'unforced' or 'natural' manner (what the Greeks call *aplastos*) (Landels 29). This style of reed blowing suggests that while pitches were able to be played, there was limited ability to create dynamics. In modern reed instruments similar in construction to the conical shaped aulos such as the oboe and bassoon, the reed has an opening that players can insert their tongue partially into to create dynamics through vibrato. With the 'unforced' manner of the early reed construction however, the ability to create vibrato is inhibited as each tone would be cut off, leaving very little range between *pianissimo* and *fortissimo* depending on how hard the aulos player blew into the instrument. However, in the late fifth and early fourth century BC, Antigoneidas, a famous virtuoso player from Thebes, switched over to a 'forced' or 'artificial' technique (*plasis* in Greek) where reeds were cut in late June or early July when their skins were much tougher, and aulos players had to squeeze the

reeds together to make them play (Landels 29). By having the players squeeze together their lips to form vibrato, there allowed for much greater variety of dynamic range in the same way that modern day oboes and bassoons have to squeeze together their lips to play their instruments. It can be assumed that the reeds were double reeds because of a fragment from Aristotle which notes that playing the reed required the technique of tightening the embouchure or *piezein ta zeugē* (squeezing the reeds), *zeugē* meaning pairs and probably referring to a double reed (Landels 31). This would have easily caused fatigue on the lips of the aulos players, especially those who had to play for a great length of time. Perhaps this is the reason why in figure paintings of aulos players such as the one shown in figure 1.4, aulos players began to be depicted wearing a strap (known as the *phorbeia*) around their mouths while the aulos player in figure 1.1, which was made in 490 BC before the development of the new reed, did not have a strap around their face. John G Landels in his book *Music in Ancient Greece and Rome*, suggests that in these vase paintings the location of where the straps are on the player's mouth suggest that they were used to put pressure on the lips, squeezing them together to keep them over the teeth and take strain off the lips (32). The construction of the aulos with a double reed and a slender conical body suggests that the tone quality is very similar to the clear, penetrating pitch of the oboe and bassoon today.

Thus, unlike the lilting quality of the lyre and the kithura, aulos players would have run into many of the same pitch problems as the oboe and bassoon. Ancient sources refer to some of the noises that beginning aulos players often made as *krizein* (to squeak) or *chēniazein* (to blow a goose). Indeed it was most likely this tonal quality and the

method by which one has to play the instrument that caused the goddess Athena to not show favor to the aulos:

“Those who like to jest say that when Athena played the auloi, she was rebuked by a satyr and did not heed these lines:

That form does not suit you; give up the auloi
And seize your arms and set right your cheeks;
But when she saw the appearance of her countenance in a river, she was vexed
and threw away the auloi (qtd in Mathiesen 179).”

The satyr mentioned in the passage is also said to have picked up the aulos and in a competition against Apollo and his lyre, lost against him. This passage and the references that are made here suggest that the aulos is often strongly contrasted with the lyre or stringed instruments. The idea that the aulos was rejected by Athena, the goddess of wisdom, suggests that it was not an instrument for one who was educated or learned because there is no pleasure that is derived from learning the instrument. This might be the reason why the aulos was typically played by professional musicians who were typically slaves (Mathiesen 182). Also, the fact that it was juxtaposed to Apollo, the patron and god of music and poetry, suggests that it was not the ideal musical instrument, that the lyre is the instrument of divine favor and is the representative instrument of beauty and the arts. The temple of Apollo at Delphi enumerates this point by having a shrine to the god of wine, Dionysus, which depicts Dionysus’ Maenads playing auloi (Mathiesen 176). The aulos therefore is not a highly favored instrument as Dionysus and wine are often seen as embodiments of madness versus the reason that Apollo represents. In fact, Professor Emeritus of Classical Archaeology at the University of California, Berkeley Stephan Miller notes in his book *Ancient Greek Athletics* that in depictions such as in figure 1.5, a music teacher at the palistra-gymnasion accompanies a youth singer

with the aulos but does not train the youth how to play it like a kitharistes would train their youth in the kithura (188).



Figure 1.5: Lessons in the palaestra-gymnasium. Red-figure kylix by Douris, ca 480 BC Berlin, Staatliche Museen

The harsher sounds of the aulos therefore might have been a reason why it was used in the athletic events that it was used in, namely the long jump or the *halma* and the javelin throw or the *akoniti*. According to the Greek Sophist Philostratos in his work *On Gymnastics* 35, he writes about the *halma*, “The rules regard jumping as the most difficult of the competitions and they allow the jumper to be given advantages in rhythm by the use of the flute, and in weight by the use of the halter” (qtd in Miller 67). Stephan Miller also notes in his book *Ancient Greek Athletics* that vase paintings also show that aulos players would accompany javelin throwers and somehow aid with the difficulty of using the loop that was needed to throw the javelin (known as the *ankyle*) (71). What is of interest in the former use of the aulos player in Greek athletics is that the aulos is compared to a rhythmic beat, which makes it very similar to a drum. The drum, like the aulos is used either in celebrating festivals to Dionysus or in combination with other instruments in battlefields (Mathiesen 176). Thus, this enumerates the clear contrasts that Greeks seem to have made by this time between the aulos and the lyre and provides a means of understanding the role of athletics in the Greek society. Because the aulos is

played in such a way that it stimulates warlike condition, it represents how physical athletic training is done with the intent to prepare for the military life, that it is a life separate from the intellectual society. The former passage with the aulos and the halma also indicates that it is a means for one to have a more focused approach toward attaining excellence or *aretē*, representing more of a professionalized individual at military training rather than the leisured amateur simply doing sport for fun. In a sense, the aulos is more of an instrument that represents a rigid or professional lifestyle that features labor and hard work rather than a learning or intellectual process. The fact that it has been represented as accompanying sporting events have been known from ancient Greek literature as the most difficult suggests that it is an instrument that portrays reaching excellence even in the most extreme sort of physical training; that athletic training is not for the weak and is motivated by other factors outside of reason. However, on this same token, while the aulos does not seem to have a place in political and intellectual society, its role in aiding with a military training is a reason why it is probably depicted in many vase painting and reliefs as an important instrument.

Thus, the structure of the aulos and its tonal quality as well as its depiction in artwork and literature shows that it represents an important part of Greek athletics as a means to aid in military and professionalized training. Indeed ancient myths and stories about the aulos juxtaposing the instrument with Athena and Apollo suggest that it is an instrument that is not found in an intellectual or more leisured society. While it employs the same modal variations as the kithura and the lyre, the harsher tone quality due to its conical structure and employment of the double-reed has made the aulos more of an instrument seen in battle or perfecting military or professionalized training as a means to

bring out the best in an individual physically. In this sense, the role the aulos plays in ancient Greek athletics is not very different from the role that marching bands play in American football games where the sounds of the instruments and the fans cause an athlete to perform to his or her best. Music and its role in athletic competition is therefore one link that binds the world of the ancient Greek society to the modern world of today.

Works Cited

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