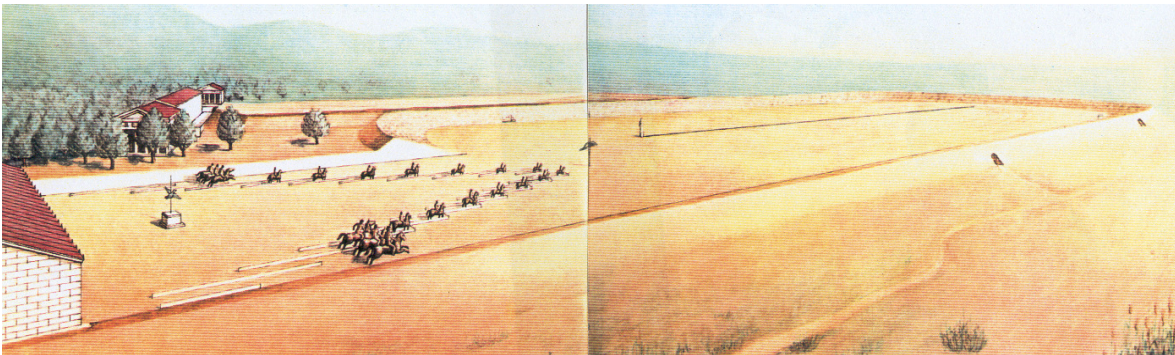


'He who was the the first to invent the Hippaphesis <at> Olympia / has made me, Kleoitas son of Aristokles' (Pausanias 6.20.14)

## 10. BACK TO THE CHARIOT RACES: *HIPPAPHESIS*, A MARVEL OF ANCIENT TECHNOLOGY

The automatic starting boxes in modern racetracks are not new or modern, despite a widely popular belief. The fact is that the *hippaphesis* (*hippos* = horse, *aphesis* = start; horse starter) placed exactly in front of the Elean judges' stand (the *Hellanodikeion*) has been the most 'modern' structure a racetrack has ever contained as seen on Fig.10.1. It seems that *aphesis* was a big thing for the ancient Hellenes and the word has survived to this day -- in modern Greece it refers to buses, whose terminal is called the *apheteria*.



**Fig 10.1.** Reconstruction of the *Hippodromos* and the *Hippaphesis* at Olympia (design K. Iliakis). At the left is the corner of the *Agnaptos* tunnel giving access to the racetrack. The eagle on the gate's altar ('wings in full spread') indicates that the race is under way; the same applies to the falling dolphin located on a rod at the very tip. Two pairs of horses have started a *keles* race and reached the third pair, which is about to take off. The *hippaphesis* could hold ten pairs, i.e. 20 horses in flat or 40 in chariot racing. As in most modern races, the horses took a left-hand gallop, turning anti-clockwise. Note that all mammals, including man, turn easier to the left than to the right for several anatomical reasons.

Ironically, the extraordinary *hippaphesis* at Olympia was situated not far from the villa now known as 'Nero's home', in the southernmost part of the *Altis* at the epicenter of the *Alpheios* valley. Unfortunately, over a period of one millennium, earthquakes and floods caused its disappearance. The only surviving evidence of the much admired, super-functional device is a one-page description by Pausanias, who saw it centuries after its construction and included a description of it in the *Eliaka* chapter of his book *Hellados Periegesis* (6.20.10 ff):

*'The aphasis is shaped like the prow of a ship--its beak turned towards the course ... At the very tip of the beak is a bronze dolphin on a rod. Each side of the starting gate is more than four hundred feet ... long and <at each side> stalls are built. These are assigned to the competitors by draw. In front of the chariots and/or racehorses stretches a rope as a barrier. An altar of unburned brick plastered outside is made at every Olympiad, as nearly as possible to the middle of the prow. On the altar lies a bronze eagle, having its wings in full spread. The starter sets the machinery in the altar going, whereupon the eagle jumps into the view of spectators; and the dolphin falls down to the ground. The first ropes to let go are those at the farthest ends of the prow and the horses stationed here are the first to race. Away they go until they come neck-to-neck with the horses who have drawn the second stations. Then ropes at the second station are released ... thus it runs, until all horses are abreast of each other at the beak of the prow. After that it is for the charioteers to display their skills and the horses their speed.'*

The artistic and functional starting mechanism was invented by Kleoitas, son of the Athenian Aristokles (not to be confused with Aristoteles of Macedon). Alas we know almost nothing about how Kleoitas' unique invention, which revolutionized horse racing, actually worked. We do know however, that he was immensely proud of it and pompous enough to place an inscription on the base of a statue he built in Athens. Proud and excited with his invention, as we see on the epigraph at the head of this chapter, Kleoitas put aside all modesty, and bragged that it was he who invented the ingenious method of starting the horses at Olympia's hippodrome.

The ingenious Kleoitas invented the starter mechanism some twenty-five centuries ago, and his work was subsequently modified or developed by a less celebrated inventor called Aristeides, who was probably from Athens too. Pausanias was less impressed by later inventors and claimed that Aristeides did not add much to the *hippaphesis*, reporting that it was *'just some clever invention concerning the mechanism'*. The old writer was inclined to dismiss Aristeides' contribution as pure hearsay.

In addition to the elaborate mechanism of Kleoitas, there was another mechanical structure at the west end of the racetrack. It was called *taraxippos* and, as described in Chapter 11, it was designed to terrorize the horses. Suffice to say that this device was the cause of many accidents to the horses, mares, colts, fillies, mules, charioteers, drivers and jockeys alike. It was probably this very *taraxippos* which led to the double fall off the chariot and humiliation of the infamous emperor Nero of Rome, hippic *polynikes* at the 211<sup>th</sup> *Olympia* of 67 CE.

It comes as no surprise that the two most important features of Olympia's racetrack came from Athens. Two deities of interest to that city-state, Athena and Poseidon, served together as protectors of horses and patrons of horsemanship. Both shared a cult on *Kolonos Hippios* (Horse's Hill), which lay outside the city walls, not far from the Academy. Here was to be found an altar of *Poseidon Hippios* and *Athena Hippias*, and the two 'horsy' deities also shared a temple at the Acropolis. Poseidon's equine interests, in particular the chariot races, are the subject of a chorus in Aristophanes' play *The Knights* (551-560):

*'Dread Poseidon, the horseman's king, you who love the brazen clash and neighing of warlike steeds. Pleased to watch where the purple-beaked trireme sweeps to the oar's long swing ... but especially where bright youths racing in their chariots flash by ...'*

Athena, the patron goddess of Athens, was credited with the invention of the bridle, the taming of Pegasus and the use of chariots. This is documented in the following passage of Aristeides' *Panathenaikos* (43):

*'She <Athena> also revealed racing chariots and warhorses, and in this land first of all men the foster-child of the goddess <Erychthonios> yoked a fully equipped chariot with her aid and revealed the complete art of horsemanship ...'*

Returning to Olympia's *hippodromos*, *hippaphesis* and *taraxippos*, it would not seem appropriate to omit another marvel of Greek invention. Considered a masterpiece of architecture, the *Stoa Agnaptou* (tunnel of Agnaptos) which was named after the architect who built it, the tunnel was composed of a series of arched columns. All athletes at the *gymnika* had to pass through it to enter the *Stadion*, and it seems that all horses, mules, carts and chariots did the same before entering the *hippodromos* to be placed at the starting gate.

Prior to entering the hippodrome to race horses and colts or to drive horse chariots and mule carts, the hippic athletes were assigned starting numbers by official draw overseen by the *Hellanodikai* judges of the equestrian events. Such a draw is still held today by racetrack stewards but, at the time of the ancient Olympics, the barbaric invention of the handicap was unheard of. Another difference lies in that in ancient times the signal to start was given by the honored victor of the '*agon salpinkton*' (trumpeter contest) and not by pressing an electric button (Fig 10.2, 3)



**Fig 10.2** Red-figured *skyphos* of Attic type A' from Corinth, attributed to the Sketch Painter. Second quarter of the 4<sup>th</sup> century BCE, National Archeological Museum, Athens. Starting moment of a *keles* flat race. The stallion is rearing in excitement, while his young rider, holding a goad in his right hand, pulls the reins with his left to control his mount until he hears the signal to start the race. On the right a young trumpeter wearing a *petasos* on his head is seen blowing a blast to send the horse(s) off. The scene may be from a training session or a local contest, since all hippic athletes at Olympia were dressed (here the rider is naked), and took off from the *hippaphesis*.



**Fig 10.3.** Fragment of a *hydria*, c. 520 BCE from the private collection of J. D. Cahn, Basel, Switzerland. A pair of two *tethrippa* (quadrigas) and part of a third seen on the left is lined up at the *hippaphesis* waiting calmly for the signal to start. The charioteer clad in a long *chiton* and holding a goad is keeping the horses steady by pulling the reins, which seem as extensions of his hands

It would appear that, at the forward end of the starting gate where the *nyssa* turning post was placed, there stood a bronze image of Hippodameia. We owe this detail to Pausanias, who claims that Hippodameia held a ribbon recalling the one she bestowed on her beloved Pelops when he won the legendary race with Oinomaos (6.20.19):

*'On one of the nyssa there is a bronze image of Hippodameia holding a ribbon with which she will adorn <the head of> Pelops as victor...'*

Well, such were the edifices at Olympia's hippodrome some 2,500 years ago...In 2004 CE, in view of the Athens Olympics, a modern racetrack was built and was given the nondescript name 'Markopoulo'. It is devoid of statues, as one would expect and what is worse, it has no path, no square, no building named after any ancient victor at the *keles* flat race...I am sure Kleoitas and all the brave Ahenian *anabates*, who made their city proud by bringing the *kotinos* home, must be turning around in their graves.