

A POSSIBLE WAY OF PERFORMING THE STADIUM RACE AT THE FESTIVITY GAMES IN OLYMPIA

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Abstract. *The subject of this paper is a complex one, given that it deals with track and field, history, history of art and archeology. Intensive studies in this field began with the renewed Olympic Games in Athens in 1896. The beginning of the new millennium and modern technology have brought the first attempts at animation regarding the possible ways of performing the events at the ancient Olympic Games, among which was the stadium race. The problems that arose with the progress of a one-stade track and field race through a period of 12 centuries at the Festivity Games in Olympia can be solved integrally through aspects of axiological, epistemological and ontological questions, as well as through the experimental method of a possible way of performing the one-stade track and field race, which was represented at the Festivity Games in Olympia. Different analyses, descriptions, hypotheses and views by many authors dealing with the subject of ancient track and field events and way they were performed were the reason for this study in light of a possible way of performing the stadium race. The aim of this study was to define the most authentic way of performing the stadium race at the ancient Olympic Games. Historical and experimental methods were used in this study. Research results indicate that there were differences in this event was performed during the 12 centuries of life of the Festivity Games in Olympia. The research has been justified by an effort to clarify existing scientific hypotheses concerning a possible manner of performing the one-stade race at the ancient Olympic Games.*

Key words: *Track and field, ancient Olympic Games, the stadium race.*

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INTRODUCTION

The most famous among all other celebrations of ancient Greece, the Ancient Olympic Games have become a permanent human value based on their content, significance and long duration. In search of the roots and origins of the method of performing a track and field event called a one-stade race at the ancient Olympic Games, as well as the study of its development, we have noticed the need for a more studious and broader approach to this issue.

Running - dromos (δρόμος) held a very important place in the system of physical education of the ancient Greeks. A one-stade race was the only competition in the first 13 ancient Olympic Games, and diaulos (δίαυλος), a two-stade race, was introduced as late as the 14th Games (724 BC). Athletes ran on a surface which was made of sand. The tracks were marked with white powder, and were separated that way. Behind the finish line there was a space for the runners to stop, and it was 10.5 m long. Runners initially ran with covered thighs (with a kind of coarse cloth) only to start running naked from 720 BC until the end of the Olympic Games, and at all the other Games. In fact, they competed naked in all other sporting events. It is believed that at these Olympics, Orsippos from Megara suffered an accident during running as he lost the cloth that was tied around his thighs (Tzachrista, 2000). Nevertheless, he continued to run and won the race.

The aim of this study is the phenomenon of the possible performance of a stadium race at the ancient Olympic Games. This has not been studied enough to this day because there are different interpretations of the authors. In fact, the review of available literature shows that the method of performing this track and field event is not clearly presented. The research consisted of identifying differences and similarities of the present day performing of the above event, almost under the same conditions as it was performed at the ancient Olympic Games (track length, surface).

METHODS

In this scientific study, we used historical and experimental methods. The historical method consisted of several stages where special attention was paid to heuristics, and a comprehensive collection of as many historical sources, which related to the way of performing the stadium race at the ancient Olympic Games. When studying the origin, adequate criticism of collected material was conducted in the context of the authenticity and the circumstances of occurrence, as well as whether these sources were able to provide valid and reliable facts, or historical truth. Based on the collected sources related to the study of the defined phenomenon, after the conducted criticism, and using synthesis, we have come to certain conclusions, which provide useful suggestions on the possible way of performing the stadium race event at the ancient Olympic Games.

The experimental method was reflected in the performance of the stadium race. At the same time, the method of performing this track and field event was video recorded. The sample of respondents used in this study consisted of medium-trained males, senior category, students of the Faculty of Sports and Physical Education in Belgrade and students of the ECPD, the International Faculty of Sports in Banja Luka. The research included 21 participants. It was preceded by a pilot study that was conducted on the ECPD students, or the students of the International Faculty of Sports in Banja Luka (N = 14) in Donji Milanovac. All variants of performing the event were selected on the basis of its previous reconstructions (animation, kinograms, pictures and written materials). The experimental part of the research was carried out on a sandy flat surface in Umka

near Belgrade. All of the participants were previously trained in the performance techniques of the assigned movements. When performing the tasks, the participants were barefoot and dressed only in shorts. Objectivity in observation as a research technique was achieved using a video camera, which recorded the performances, and on the basis of which we assessed the method of performance.

With one-stade races the task was to position the participants on the starting line (a line in the sand) in a standing position between the wooden poles which separated them in the starting positions. The poles were .80 m high with a diameter of .03 m, and with a space between them of 1.25 m. On the starter's mark (the loudly spoken word Go!) they ran as fast as they could on the marked track in the sand with a width of 1.25 m, with each participant running in a separate track to the finish line. As time was not measured in stadium races at the ancient Olympic Games because there was no chronometer, we did not record the achieved result.

A STADIUM RACE

A stadium race (στάδιο) was a straight line running competition at a distance of 600 feet, which in Olympia amounted to 192.27 m, and today it corresponds to the 200 m race (Ćirić, 1996). It is believed that this race is the oldest and one of the most popular and most interesting races. After 37 Olympic Games, boys started to compete in one-stade racing. In Olympia, there were only two categories of athletes (men and boys), which helanodics (referees) estimated depending on the competitor's build (height and power) (Ćirić, 1996). For boys we do not know the exact length of the race, but for girls it is known that it was 1/6 shorter than the standard length, i.e., at their Heraean Games they ran a distance of 500 feet (Gardiner, 1910). The stadium in Olympia had 20 starting positions, but it is assumed that not all places were filled for this race. A lot of competitors signed up for the race, and early on the day of the race runners drew plates with letters of the Greek alphabet from a bronze vessel or helmet to form qualification groups. The winner of each qualifying race would go directly to the finals, which means if he won, he was actually a double winner of the race (Pausanias, 1994). The start of the race was on the east side of the stadium, and the finish line was on the west side. All races finished on the west side of the stadium, which had the symbolic character of running towards the temple of the god Zeus (Mouratidis, 1990).

The starting line (γραμμῆ) was used as a method of starting a race. In the early Games, the starting line was a carved line in the ground. It changed over time and was made into a stone line. With the last third stadium, the starting line got a new shape, i.e. it was made of stone slabs with two notched grooves (βαλβηδες) positioned transversely to the direction of movement - with a depth of 2 cm, a width of 4 cm and a distance of 16 cm, for supporting the toes. In Olympia, the entire length of the narrow side of the racetrack contained 20 starting slabs. Every 4 feet (1.25 m), there were holes in which during the competition there were poles that separated competitors at the start (Fig. 1).

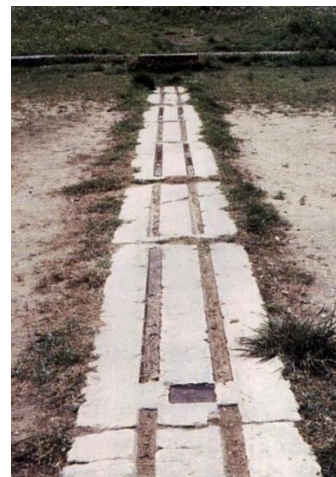


Fig. 1 A starting line made of stone slabs in Olympia

A starting mechanism *hysplex* (ὕσπληγξ) was used to start a race as correctly as possible in the later period of the Games. We reconstructed the starting mechanism for stadiums in Isthmia and Nemea, on the basis of which it can be concluded that the start was different in Isthmia compared to Nemea. It has not been proven what this mechanism looked like in Olympia (Scanlon, 2006).

Like today's athletes, before taking a position on the starting line, the runners did several warm-up exercises, for example, running in place, deep squats, punching their chest with their fists, and sprinting forward with sudden stopping. Then they stood waiting and relaxing before the call of the messenger to take their places (Swaddling, 1999).

The Greeks knew of the standing start (ἀφεσις), and the mark for the beginning of the race has probably changed, so in the initial period it must have been given verbally with a messenger shouting "Go" (ἀπιτε). There is also an assumption that it was given using a trumpet. In 396 BC in Olympia, there was a competition introduced for messengers (announcers) and trumpeters. The winners of this competition were entitled to announce competitions and to announce the names of the winners (Pausanias, 1994). There is an assumption about the starting option when a starter signaled the start of the race by lowering a rod (or cord) using a starting mechanism - *hysplex*. Swaddling (1999) writes that *helanodics* had assistants called *alytes*, who punished those runners who had a false start by whipping them.

A running technique shown on the vases of ancient Greece indicates that it is very similar to the present technique (Miller, 2006). Runners were swinging their arms hard and spreading their fingers, and the flight phase was presented by a jump.

At the end of each competition the winner's name, his father's name and the name of his city were publicized. The most important thing was that the winner of a one-stade race got the right for those Olympics to be called after him because he had won the most sacred race.

DISCUSSION

A reconstruction of the starting position of the participants in a stade race is shown in Fig. 2. The participant was in a standing start position between the poles and in front of the marked line in the sand. He left tracks in the sand with his feet. They were closely positioned so that the toes of the right foot were at the level of the heel of the left foot. The knees were slightly bent. The body weight was on both feet with minimal transfer of weight to the front foot. The right arm was placed in front and parallel to the substrate, while the left arm was behind. The torso was bent slightly forward, and the runner looked straight ahead in the direction of running.



Fig 2 The starting position

By analyzing the video and Fig. 2, it can be said that this is a similar position to that of the athletes at the ancient Olympic Games. Based on the experiment, it can be said that this way of starting was basically a natural position for the start of rapid movement under the circumstances. This starting method was probably used in the earlier period of the Games.

According to Gardiner (1910), at the early Olympic Games it is likely that the starting line was a notched line in the sand, which over a long period of time changed from one notched line in the sand to two lines and the starting slabs - balbis.

Based on the performed experiment and the start simulation, the assumption is that the feet were probably close together because of the sand substrate. In fact, at the time of the abrupt start or pushing the feet against the ground (sand), there was slipping backwards. In case there was greater distance between the feet, there would probably have been a long first step, a stronger traction through the sand and delays at the start.

As they had to be careful not to damage the starting line, the assumption is that the front foot was not supposed to be placed close to the line, which was observed during the experiment. Regarding the images on vases from ancient Greece, which show assistant referees in charge of execution of punishment with a whip in their hands, the assumption is that in addition to punishing false starts they had an obligation to punish those who damaged the starting line. As we believe that the athletes did not make an intentional error when starting, we agree with Mouratidh (1992) that it led helanodics to use stone starting slabs with incised lines which would not have gotten damaged, and which have been preserved to this day at the stadium in Olympia.

The other starting line mentioned by Gardiner was probably the line of foothold of the front foot in order not to damage the starting line. The introduction of stone slabs with two carved grooves implies the idea that there were probably two incised lines in the sand, but not for this function. They were both support for the toes. However, we believe that the first line on the stone slabs (carved groove) represented the previous second notched line in the sand. The first notched line in the sand is represented by the front edge of the stone slabs. The second groove on the stone slabs was probably designed to keep the feet on the same plane, rather than for one foot to be on the higher and the other foot to be on the lower surface.

The use of hysplex in Olympia is still a mystery to researchers. Its reconstruction has not been carried out to this day. Although Valavanis (1999) in his book dedicated to the starting mechanisms in ancient Greece included all detected stadiums and starting mechanisms used in them, for the starting mechanism at the stadium in Olympia it has only been established that there was a starting mechanism, but not what it looked like.

As hysplex could not have been the same everywhere, especially because the Greeks liked originality, we believe that in Olympia there was probably a mechanism similar to or identical to that of Nemea, for which Miller (1993) created a reconstruction. In support of this view of the appearance of the starting mechanism in Olympia, we present the following facts:

- Both in Olympia and in Nemea, the Games were dedicated to the god Zeus;
- Only in Olympia and Nemea were there no musical festivities as part of the Games, as at the other Pan-Hellenic festivals;
- At the stadium in Olympia, there was no hole for the starter because it is likely that archaeologists would have discovered it by now;
- Heracles (son of Zeus) is considered the founder of both Games, according to legend;
- What would support the hypothesis as material evidence is that, in addition to balbis (a starting line) on the west side of the stadium in Olympia, on one side there is a

stone even today, which by the position where it is located could be a carrier of the structure of hysplex, similar to that in Nemea;

- The starting mark has probably changed over time. Initially, it was given by the starter's command "Go", later on with a trumpet, and finally through the starter mechanism.

The running method on the track is shown in Fig. 3. The running technique can best be seen from the nearest participant. As you can see, he is in a running stride position at the time of the bounce with his left foot. This distinctive position is painted on many Greek vases. Arm swings can be seen with a large range of motion, there is increased body stretching, a long step, knees raised high up, and the angle of the knee joint of the raised leg is greater than 90° . The hands are stretched out, and the swing of the left arm is at head level. The substrate necessitated such moves because it was loose (sand). A slower swing is performed in such conditions, with greater stretching or arched movement in segments. If we compare pictures of athletes in a stade race from the times of ancient Greece with today's way of running in similar conditions, we can say that it was very similar and take that with slight caution. It is reflected in the leg, arm, torso and head position.



Fig. 3 The running technique on the track in a one-stade race

Passing the finish line in the stadium race is shown in Figure 4. The participants ran through the finish line (a target line in the sand and small wooden bars). It is likely that the bars were at the finish line to better observe running in one direction and the separation of runners at the finish line. It is likely that they ran through the finish line in a similar way as today, and that they were not allowed to fall down at the finish despite excessive tilting of the



Fig. 4 Passing through the finish line in a stadium race

torso forward. The reason is that the Greeks did not fall to their knees before their gods, and this meant they respected them. It was probably for this reason that they were not allowed to fall to the ground because an athlete would be disqualified. Passing through the finish line at the ancient Olympic Games was probably performed between two poles for each athlete, while today two poles are used for athletes from several racetracks.

CONCLUSION

Many authors who have dealt with the issue of one-stade running methods at the ancient Olympic Games have given various analyses, descriptions, assumptions and perceptions. A small number of authors in the world have written about this studiously, while for very few we can say they conducted analytical or scientific research. In explaining the performance of this event, they have given the assumption of only one possible method of starting. Therefore, the entire research effort was focused on finding the so far undiscovered and existing sources, and on their appropriate criticism to use valid and reliable synthesis to come to scientific knowledge regarding the researched phenomenon.

After comparing the obtained results by performing the one-stade running techniques, we have found data that support the fact that we could say with caution which method was the most likely way of performing this track and field event at the ceremonial Games in Olympia. Based on the research of the method of execution of the stadium race event at the ancient Olympic Games and realistically a possible method of performance, we have come to the following conclusions: that there are differences in the interpretation of the start of the stadium race; that the method of starting varied during the 12 centuries of the ancient Olympic Games, that it is likely that in Olympia there was the same starting mechanism as in Nemea, and that the running technique on the track is the same as on the Greek vases. High arm swings were initiated by the sandy surface, and are not the freedom of artistic presentation on the images, as it has been interpreted by a large number of authors. Also, it is important to point out that the distance between the two poles in Olympia was identical to the width of the track at the stadiums today.

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MOGUĆI NAČIN IZVOĐENJA DISCIPLINE TRČANJA NA JEDAN STADION NA SVEČANIM IGRAMA U OLIMPIJI

Predmet ovog istraživanja je kompleksan jer se prepliću oblasti atletike, istorije, istorije umetnosti i arheologije. Intenzivnije bavljenje istraživanjima iz ove oblasti datira od obnovljenih Olimpijskih igara u Atini - 1896. godine. Ulaskom u novi milenijum i napretkom tehnologije, napravljeni su i prvi pokušaji animacija mogućih načina izvođenja svih disciplina koje su bile na programu Svečanih igara u Olimpiji, a među njima i trke na jedan stadion. Problemi, koji su nastali napretkom atletske discipline trčanja na jedan stadion kroz dvanaestovekovni period na Svečanim igrama u Olimpiji, mogu biti rešeni integralno kroz aspekte aksioloških, gnoseoloških i ontoloških pitanja, kao i eksperimentalnog postupka mogućeg načina izvođenja atletske discipline trčanja na jedan stadion, koje je bilo zastupljeno na Svečanim igrama u Olimpiji. Različite analize, opisi, pretpostavke i tumačenja velikog broja autora koji su se bavili atletskim disciplinama na antičkim Olimpijskim igrama i načinom njihovog izvođenja, otvorili su prostor za istraživanje mogućeg načina izvođenja trčanja na jedan stadion. Cilj istraživanja se sastojao u utvrđivanju što verodostojnijeg načina izvođenja trke na jedan stadion na Svečanim igrama u Olimpiji. U radu su primenjeni istorijski i eksperimentalni metod. Rezultati istraživanja ukazuju da su postojale razlike u načinu izvođenja ove discipline tokom dvanaest vekova trajanja Svečanih igara u Olimpiji. Naučna opravdanost ovog istraživanja se ogleda u rasvetljavanju naučnih pretpostavki u vezi mogućeg načina izvođenja discipline trčanja na jedan stadion na Svečanim igrama u Olimpiji

Ključne reči: atletika, svečane igre u Olimpiji, trčanje na jedan stadion