RESEARCH IN HISTORY OF SPORT

Book · March 2020

CITATIONS
0

READS
4,134

1 author:

Violeta Šiljak
University for Peace
42 PUBLICATIONS **37** CITATIONS

SEE PROFILE

VIOLETA ŠILJAK

RESEARCH IN HISTORY OF SPORT

Monography

Violeta Šiljak

RESEARCH IN HISTORY OF SPORT

Publisher
Violeta Šiljak
FIEP Section of History of Physical Education and Sports
http://www.fiep-serbia.net/en/index.html

For Publisher
Nenad Živanović

Rewievers

Nenad Živanović (Serbia)
Branislav Antala (Slovakia)
Nicolae Ochiana (Romania)

Typesetting and Cover design
Vladimir Šašo

ISBN 978-86-920235-0-7

Print:

RIS Studio, Belgrade

Print run: 300

Belgrade, 2016.

TABLE OF CONTENTS

PREFACE

The history of sports, as part of the general history that studies the phenomenon of sports has gradually grown into a scientific discipline. A variety of scientific and research papers have led to the formation of a sufficiently complex and comprehensive system of knowledge of the history of sports, so that today it is constituted as an independent educational and scientific discipline that is taught at several universities around the world.

However, in addition to a number of new communication technologies of the 21th century, access to current scientific information on the history of sports for various reasons is not provided equally and adequately to all interested researchers.

The Studies of the History of Sports monograph has grown out of a desire to unite part of the papers by various authors as possible additional literature for the researchers in the field of the history of sports. It can be used by the students of the university where the phenomenon of sports is studied, by athletes, coaches and all those interested in sports as a socio-historical phenomenon.

Although the roots of physical culture (the forms of physical activity and types of sports events) can be found in the period of the original human community and the later ancient civilizations, the selection of research for this monograph was dictated by the fact that ancient Greece was the first civilization which knew and applied all the elements contained in modern sports. The exercise and competition system which was conducted in special "sports" facilities under the supervision of the then teachers and coaches in ancient Greece, as well as the following elements, confirm the above statement:

- *Young men exercised on a daily basis under the supervision of teachers and coaches.*

- *Their exercises consisted of various elements and were carried out in a certain way (exercise program and methods)*
- *They took part in competitions where the precisely defined rules were used by the referees (competition system, referees)*
- *They exercised and competed before the spectators in special places (sports fields, spectators)*
- *There was an established system of rewarding the winners and punishing those who committed an offense (Šiljak, 2007, 42).*

In addition to the nine papers related to the sports activities in ancient Greece, three research papers that more broadly touch upon the issue of the history of sports in ancient Greece are also included. In its consideration of the historical connection between religion and sports, research on religious syncretism and sports since Constantine the Great to the present times has included, of course, the connection between religion and sports in ancient Greece. In the case of anthropological research in sports, among other things, ignorance and lack of understanding of the problems of the ancient Olympic Games can be observed in the papers of the authors dealing with the issues of sports by not using adequate sources, the authors whose papers are funded by the Ministry of Education, Science and Technological Development of Serbia through various projects. Historical development of Olympic education in Serbia is a paper announcing the next monograph dedicated to the Olympic Movement which is certainly created thanks to the ancient Olympic Games.

The selected papers in this monograph are originally presented, that is, as per the instructions for writing papers of current books and journals at the time of publication.

Милош Вилотић

FEMALE COMPETITION IN ANCIENT GREECE

The results from this study were presented at the scientific conference of the Faculty of Sport and Physical Education (Belgrade, 2000), and were published in the journal of national importance: ***Šiljak, V. (2001). Female competitions in ancient Greece, the Faculty of Sport and Physical Education Yearbook, University of Belgrade. ISSN: 1452-5917, issue 10, p. 154-160***

FEMALE COMPETITION IN ANCIENT GREECE

It is known that Greece is widely accepted as the cradle of civilization that all the fields of culture, science and sports have largely originated from it. Also, the accepted opinion of the general public is that major sporting events started with the first Olympic Games held in 776 BC. Very little is known about the women and their sports activities in ancient Greece. Their participation in sports events at the time cannot be compared to that of men, but in any case it is not negligible. Although the participation and victories of woman are immortalized in the same historical sources as the victories of men, it can be said that their role has been neglected to this day, when the modern woman has broken almost all the barriers between the genders participating in almost all sports just like men. In identifying themselves as such, the assumption is that they want to learn more about their past, i.e., their participation in sports competitions.

Thus, at the time of the Cretan civilization (3000-1450 BC), the role of women in sports competitions was at a high level. Based on authentic materials (parts of frescoes, various figurines, images on vases, and so on) found at the archaeological sites on Knossos on Crete[1], it was found which sports were represented in the Minoan period.

Bull leaping was a popular competition[2] in which both women[3] and men took part. Competitions were held in the arenas, where the girls jumped on the bulls with both feet, gripping the horns and doing a flip forward, which is very similar to today's varieties of leaps over a pommel horse in gymnastics[4]. Such acrobatic skills demanded a high level of physical training[5].

Female dancing competitions to music[6] were also very popular in the Minoan period[7].

In the mid-13th century BC, a woman took park in the venture voyage of the Argonauts to Colchis for the golden fleece. Her name was **Atalanta** (Ατὰλάντα) from Arcadia[8], famous Calydonian boar hunter. On this journey, the Argonauts took part in three-day competitions dedicated to the death of Dolonian king Cyzicus. Atalanta was equally involved in those. It is said that she had no worthy opponent in the **running event**. Upon their return, one more competition was held at the funeral in honor of the Fthiotide king Iolcus, where Atalanta defeated Peleus in **wrestling**. She was also the winner in the **long jump** event at the same Games. All this showed that she was an exceptional person, not only with respect to members of her gender, but also in relation to men, and not even mere mortals, but heroes.

Common to all the Panhellenic Games was that the Greeks from all over the world had the right to participate as competitors or spectators. The Games were as follows: The Olympic Games, the most famous of all, held from 776 BC to 394 BC, followed by the Pythian Games, which began around 582 BC and lasted until 300 BC, the Nemean Games from 573 BC to 394 BC, and the Isthmian Games that started in the period from 582 to 570 BC and lasted until 394 BC. There are historical sources that indicate that women participated in all the Panhellenic Games, but they are quite badly damaged, and there is information mission, including either the name of the winner, the name of the Games where women participated or the name of the event.

Women competed in the running events in Olympia at the so-called **Heraean Games**, which were organized in honor of the goddess **Hera**[9]. They were not held at the same time as the men's, but rather a month earlier or a month later compared to their Games. The young girls from Elis took part in the *Heraean Games*. Pausanias, a travel writer from the 2nd century AD, states that they were divided into three categories[10]. The youngest competed first. The winner was usually proposed to by one of the winners of the men's Games. The names of winner at the *Heraean Games* have not been saved, and the name **Chloris** is the only one that is mentioned in historical sources[11]. She was the first woman to win at the Heraean Games and was the niece of Pelops.

The girls competed in the **running** event at the same stadium as men, but on a 500-foot track (1/6 shorter than the men's), which was 160 m. Their hair was down during the race, they were dressed in short dresses, the so-called *chitons* with one bare shoulder and breast. They were given the same award as men (a wreath of olive branches and a piece of meat from the sacrificed cow), and a right to have their names carved into the statues that were placed in the temple of Hera.

It is known that women were forbidden by law to attend the competitions of the Olympic Games. The penalty consisted of throwing them off Mount Typaeum[12]. Every rule had its exception as confirmed by Kallipateira, who attended the event for her son Pisidoros in wrestling, as a coach. After the death of her husband she was forced to keep training her son alone, who won at the Olympic Games, which speaks of her great knowledge of physical training. She entered the stadium in disguise. But, when her son won, like any mother she ran towards him, blowing her cover. Given that her family was associated with the former well-known Olympic winners[13] she was forgiven, but from then on the athletes and coaches had to enter the stadium naked.

As horse owners at the men's games, women were considered the winners as initially the winners of the games were the owners, not the riders.

Cynisca, Euryleonis, Bilistiche, Cassia, Timareta, and Theodota are the names of the women winners as their chariots with two or four harnessed horses won at Olympia[14]. It is interesting to point out that **Cynisca** was the daughter of Spartan King Archidamus and sister of Agesilaus. The victory came in 396 and 392 BC in a **four horses chariot race**. The following inscription stood on a discovered black marble pedestal in Olympia:

> *The kings of Sparta are my fathers and brothers,*
> *I, Cynisca, am victorious with a chariot of swift-footed horses.*
> *Put up this statue.*
> *I declare that I am alone among the*
> *Women of all Greece to take the crown*[15].

In 268 BC, Bilistiche from Macedonia won a **four horse chariot race**, and four years later her two horse chariot won as well. In 21 AD, Cassia from Elis also won the four horse chariot race.

The Pythian Games were held in the famous oracle place Delphi. During the archaeological excavations a basis was found on which it was assumed that there were three statues dedicated to the three sisters **Tryphosa, Hedea, and Dionysia**, where it was carved that they were the winners of various games, of which only Tryphosa won in the **running** event at the Pythian Games. Hedea was the winner of the various celebrations, in Isthmia in the **battle chariot race**, and in Nemea and Sicyon in the **running** event. Dionysia won in Isthmia and Epidaurus in the **running** event[16].

In Nemea, **Berenice II**, Queen of Egypt, was recorded as the winner in the **four horse chariot race.**

In Isthmia, the winners were the previously mentioned three sisters Tryphosa, Hedea and Dionysia. Although they won in various competitions, their father erected a statue in their honor at Delphi[17].

The status of women in ancient Greece cannot be generalized because each polis had its own laws, regulations, and the competitions were held at different time periods. Thus Athens and Sparta were quite different. The Spartans subdued their whole lives to the state, while the Athenians were involved in politics, philosophy and art. In Athens, a great interest of women in sports was not recorded, while the situation was completely different in Sparta.

Torch races in the form of a relay (lampadedromia) were held in many ancient Greek cities in the context of religious ceremonies, while the most important ones were in Athens as part of the Great Panathenaic Games. All age groups took part in the running events[18], including both genders, while, for example, in *Varronia* in Attica only the girls raced[19].

The Spartan women were very active in many sports. Given the state organization of Sparta, the girls were required to exercise together with men

so that later on they would be healthy and strong to have healthier offspring that could serve its country. Such a law was laid by King Lycurgus in the 9th century BC in verbal form and was transmitted from generation to generation. Together with men, the women exercised and competed in **running, wrestling, discus throw, javelin, pankration (a combination of boxing and wrestling), boxing, hunting, horseback riding and fencing**.

According to Reese & Rickerson /10/ even Menelaus's wife[20], pretty **Helen** who caused the Troyan War, competed in the **running** events before marrying him, as described by Greek poet *Theocritus*.

The seriousness with which the girls from Sparta prepared to compete in the running events can be seen from one of the exercises. In fact, one of the preparatory exercises for the competition was the so-called *bibasis* (βηβασης) - throwing back the lower leg to the gluteal region, which is still used in sprint running today[21].

In addition to the Panhellenic Games which were the all Hellenic Games, the ancient Greeks held numerous festivals in honor of various deities or events related to the community. People competed in the track and field, poetry and singing. At the games, the girls had their chance to express themselves in competitions. Female competition in Ancient Greece has still not been researched enough. Preparations for competition, diet, and so on are the areas that affect the competitive activity, so future research should be focused in that direction.

Endnote

[1] The discovery and all the excavations in Crete were done by Sir Arthur Evans (1851-1941) for the most part in the first decade of the 20th century.

[2] The assumption is that the competitions with the bulls were religious in character at the celebrations in honor of the goddess of fertility, the Mother of God. The later writers have given her the name "Mrs. sports" - Мουρατιδη, I. /8/, σαλ.167.

[3] The women were originally from the aristocratic families.

[4] Καιμακαμης, ., Στεφανιδης, Π. & Γκογκου, M. /7/, σαλ.16.

[5] When the 1998 world champion in the bull riding, Ted Nuce from Oakdale, California, was asked whether it was possible to do such a thing, he said it was, with acrobats and well trained bulls, Reese, A.; Rickerson, I.V. /10/ p..48.

[6] Back then they used a very popular instrument called lyre with seven strings. A tortoise shell served as a resonator (Abraham, G., /1/, p. 285).
[7] Μουρατιδη, I. /8/, σαλ. 167.
[8] Cermanović-Kuzmanović, A. i Srejović, D. /2/p. 58; Ćirić, A. /4/ pp. 27-29; Ristić, S. /11/ pp. 53-54.
[9] Christopoulos, G.; Bastias, J. /3/ p.82; Gardiner, E. N. /5/ pp. 38-40.; Reese, A.C.; Richerson, I. V. /10/ p. 72.
[10] Pauzanije /9/ V, 16, str.398.
[11] Reese, A.C.; Richerson, I. V. /10/ p.84.
[12] Pausanias /9/ V, 6, p. 376.
[13] She was the daughter of Diagoras of Rhodes, a multiple Olympic winner. Her brothers and husband were also winners.
[14] Reese, A.C.; Richerson, I. V. /10/ pp. 92, 94, 96.
[15] Ćirić, A. (1996), p. 198.
[16] Reese, A.C.; Rickerson, I.V. /10/ p.120.
[17] After Olympia, the Pythian Games in Delphi were the second most important of all Panhellenic Games.
[18] Today, this would correspond to the categories of youths, juniors and seniors.
[19] Γιαννακη, B. Θ. /6/ σαλ.170-171.
[20] Son of the Mycenaean king Atreya and the Cretan woman Europa, brother of Agamemnon.
[21] Reese, A.C.; Rickerson, I.V. /10/ p.157.

Bibliography

/1/ Abraham, G. (2001): New Oxford History of Music, (translated from English by M. Zatkalik), Clio, Beograd.

/2/ Cermanović-Kuzmanović, A; Srejović, D. (1992): Leksikon religija i mitova drevne Evrope, Savremena Administracija, Beograd.

/3/ Christopoulos, G.; Bastias, J. (1976): The Olympic Games, Ekdotike Athenon S.A., Athens.

/4/ Ćirić, A. (1996): Igre u Olimpiji, Vreme knjige, Beograd.

/5/ Gardiner, N. (1910): Greek Athletic Sports and Festivals, Macmillan, London.

/6/ Γιαννακη, B. Θ. (1998): ΙΣΤΟΡΙΑ ΦΙΣΙΚΗΣ ΑΓΩΓΗΣ, ΠΑΙΑΝΙΑ ΑΤΤΙΚΗΣ, Αθηνα.

/7/ Καιμακαμης, Β., Στεφανιδης, Π. & Γκογκου, Μ (2001).: ΑΚΡΟΒΑΣΙΕΣ ΨΟΡΟΙ ΣΤΗΝ ΑΡΧΑΙΣΤΗΤΑ, ΜΙΑ ΣΥΓΚΡΙΣΗ ΜΕΤΙΣ ΑΣΚΗΣΕΙΣ ΕΔΑ ΦΟΥΣ ΣΤΗ ΣΥΓΧΡΟΝΗ ΕΠΟΧΗ, Φισικη Αγθγη και ατλητισμος, Θεσσαλονικη, περ. Β., No 46.

/8/ Μουρατιδη, Ι. (2000): ΘΕΜΑΤΑ ΦΙΛΟΣΟΦΙΑΣ ΦΥΣΙΚΗΣ ΑΓΩΓΗΣ ΕΙΣΑΓΩΓΗ ΣΤΗ ΦΙΛΟΣΟΦΙΑ, Εκδοσεις Α., Π. Χριστοδουλιδου Ο. Ε., Θεσσαλονικη.

/9/ Pausanias, (1994): Opis Helade, Matica Srpska, Novi Sad.

/10/ Reese, A. C.; Rickerson, I. V. (2000): Ancient Greek Women Athletes, Ideotheatron, Athens.

/11/ Ristić, S. (1994): Helenski svet II: Bogovi i smrtnici, DBR International Publishing, Beograd.

A RESEARCH ON ANCIENT OLYMPIC GAMES ATHLETIC EVENT MODE OF PERFORMING JAVELIN THROWING

The results of this study were presented at 11th International Congress on Physical Education & Sport, Komotini (16-18 May 2003). The author does not have any information on the publication of the paper in its entirety, while the abstract is published in: ***Šiljak, V. (2003). A Research on Ancient Olympic Games Athletic Event Mode of Performing Javelin Throwing. Αθληση & Κοινονια, ISSN 1105-655X, 2003, no. 34, σαλ. 141.***

A RESEARCH ON ANCIENT OLYMPIC GAMES ATHLETIC EVENT MODE OF PERFORMING JAVELIN THROWING

Searching for the roots and the original mode of performing javelin throwing at the ancient Olympic Games, as well as for its development, the necessity for more scholarly and comprehensive approach to the phenomenon of the possible javelin throwing mode at the Olympic Games has been noted. Therefore, the entire research effort has been aimed at discovering, so far unrevealed sources, subjecting them to the appropriate analysis and through valid and reliable synthesis to acquire scientific knowledge regarding the object of the research.

The event that developed along the twelve century long history of javelin throwing at the Games in Olympia, could be explained completely when analyzed from the axiological, Gnostic and ontological point of view. The experiment on possible mode of performing athletic event javelin throwing at the ancient Games in Olympia could clarify the mystery.

Many authors involved in the research of mode of performing athletic events, as well as the mode of javelin throwing among them, offered different analyses, descriptions, hypotheses and views, causing doubts regarding the possible mode of performing them, thus providing the reason for this research to take place.

The ancient Greeks had been practicing two modes of javelin throwing: one was to throw the javelin as far as possible and the other – to hit the target. The first kind of throwing, *ekivolos* (εκηβολος), was a part of the pentathlon, included in the competitions in Olympia in 708. B.C.

The javelins used in this event were made of hard, elastic wood, most probably of cornel, *crania* (κρανια). Most authors agree that the length of a

javelin depended directly on the height of an athlete[1], being between 1.5-2 m. At the competition, the point of a javelin had to be sharpened so that the javelin could stick into the ground, thus making the throw valid[2].

The basic difference between the ancient and the modern javelins consists in the use of a leather thong, called *ankyla* (αηγκηλη) by the Greeks, and *amentum* by the Romans. The ankyla was 30-40 cm long and it was wound round the middle of the javelin, where its gravity central was. The thong used to be wound in such a manner, that at the end of it, there was a 6-10 cm loop and the athlete passed his forefinger or a forefinger together with his middle finger[3] through the loop. The use of ankyla made the javelin, fly further since the lever for throw out was extended.

During the ancient games in Olympia, the javelin throwing event took place in the stadium. The run-up area, approximately 10 m long, was on the west side of the stadium, where the finishing line of the stadium race was also the throw out line - *terma* (τερμα)[4], as Pindar said in one of his Odes, according to E. N. Gardiner[5]. It is possible, it was that Ode from which a rule was derived that the athlete who overstepped the line should be disqualified from further competitions. The area into which a javelin should be thrown was clearly determined from three sides, and the throw was not valid in case that the javelin had landed outside the defined area[6].

Before the competition, each competitor wound his ankyla around the javelin under the supervision of *paidotribes*[7]. After a few steps of run-up, with the javelin drawn back, what were surely the last movements just before the

---

[1] E. N. Gardiner, (1910), p.338; G. A. Christopoulos & J. C. Bastias (1982), p.196; J. Swaddling, (1999), p.67.

[2] E. N. Gardiner, (1910), p.338.

[3] T. Zissimou, (2000), pp.45-46.

[4] It is obvious that there are many terms for the line (place) from which a javelin was thrown, because J. Swaddling, (1999), uses the term ``valvides``, which is also used as a start line (stone blocks), stating as well that the same place (valvides) was used for the discus throw, p.68.

[5] E. N. Gardiner, (1910), p.356.

[6] G. A. Christopoulos & J. C. Bastias, (1982), p.198.

[7] J. Petrovic, (1963), pp.176-182.

throw out, i.e. the moment of outrunning the javelin, the competitor would throw it and at that very moment the final impetus of the middle and the forefinger through the loop and the thong gave the stronger impetus and caused the javelin to spin along its axis thus providing steady flight and longer throws.

There are no authentic records on the achieved results, though according to J. Swaddling it may be concluded from the texts that throws of 91 m were not very rare[8]. The Encyclopedia of Physical Culture[9] offers that according to Statius the average throw was 46.22 m. The contradiction of those two results, clearly points out that there are no reliable historical sources on this matter.

The ancient technique of javelin throwing is similar to the modern one, except for the use of thong.

In this research, historical, experimental and statistical methods were applied. The research consisted in defining the most reliable mode of javelin throwing, under almost the same conditions (ground, javelin), as they used to be at the Games in Olympia.

All the methods of javelin throwing were carried out on the sand flat ground at Umka, near Belgrade. All the subjects had been preliminary trained regarding the techniques of carrying out given tasks. During the performing of tasks, the subjects were barefoot and wearing only sport shorts.

All the varieties in performing the events and the equipment used in them had been chosen according to the former re-enactment (animation, pictures and written records).

The samples of variables are as follows:

- The javelin throwing with no run-up (NRU)
- The javelin throwing with four step run-ups (RU4)

[8] J. Swaddling, (1999), p.67.
[9] The Encyclopedia of Physical Culture A-O, (1975), p.679.

- The javelin throwing with eight step run-ups (RU8)

All the subjects used cornel wood javelin, 2.3 m long and 0.5 kg heavy. The grip was leather thong 1.7 m long, that was wound according the arbitrary estimate of an individual subject (fig.1).

Fig.1

The results of javelin throwing performed in three different ways, expressed in meters, are shown in the table 1.

Table 1 - The results of javelin throwing performed in three different ways

The subject	**NRU (m)**	**RU4 (m)**	**RU8 (m)**
1	31.30	34.80	39.20
2	47.45	49.10	**54.60**
3	26.06	30.50	30.70
4	24.30	30.80	31.10
5	26.75	36.40	37.10

This collection of the results is based on three characteristic series i.e. three modes of javelin throwing techniques: javelin throwing with no run-up, javelin throwing with four step run-ups and javelin throwing with eight step run-ups.

For describing three characteristic series performed by the same five subjects, the following was taken into consideration: volume (O), minimum value (Min), maximum value (Max), arithmetic mean value (M), standard deviation (SD), variation coefficient (V); and it is shown in the table 2.

Table 2 - Descriptive statistic indexes in three modes of javelin throwing

	N	O (m)	Min (m)	Max (m)	M (m)	SD	V
NRU	5	23.25	24.30	47.45	31.1720	9.4591	89.475
RU4	5	18.60	30.50	49.10	36.3200	7.5827	57.497
RU8	5	23.90	30.70	54.60	38.5400	9.7115	94.313

Based on former studies and the results obtained during this research I have analyzed all the aspects of the possible mode of performing athletic events at the ancient Games in Olympia.

The analyses of the way in which the subjects moved was done by examining video tapes and photographs of all the variations in the javelin throwing.

Javelin throwing with no run-up

Overstep was not so distinctive with the javelin throwing with no run-up when compared to the throwing with run-up. The fig.2 shows the characteristic initial position for throw with no run-up with one of the subjects. It can be seen from the figure that the left leg is extended forward,

while the right one is bent at the hip-joint. The subject`s left side is turned in the direction of throw, with the left arm raised, slightly bent at the elbow and aimed in the direction of throw. The right arm, with the hand holding javelin, is maximally extended backward, resembling the fragments on the ancient Greek vases (figures 3, 4, 5). The javelin was at the head level.

Fig. 2

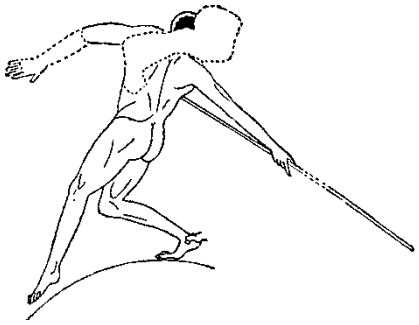


Fig. 3

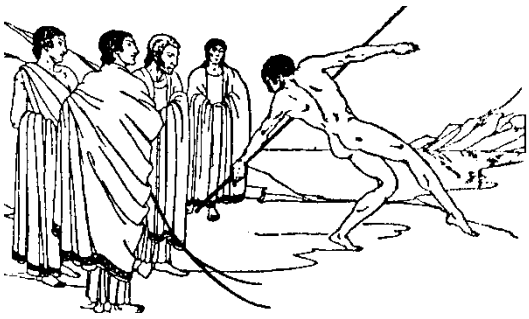


Fig. 4

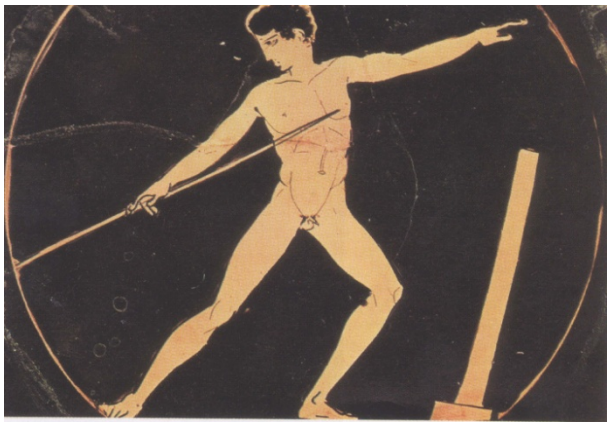


Fig. 5

The average result in javelin throwing with no run-up was 31.17 m, while the longest throw was 47.45 m.

Javelin throwing with four step run-ups

The initial position of subjects for javelin throwing with four step run-ups (8 m) is left leg forward. After a short run-up consisting of four thrower`s steps (the body turned semi diagonally in the direction of throw), the subjects threw the javelin. At the moment of throwing, the subjects hopped (thus making so called over step) from the left leg to the right one in order to stop.

The average result in javelin throwing with four step run-ups was 36.32 m, and the longest throw was 49.10 m. The distances covered in javelin throwing with four step run-ups when compared to those in throwing with no run-up turned to be much longer (5.15 m on the average).

Javelin throwing with eight step run-ups

In javelin throwing with eight step run-ups (approx. 14 m) the subject started run-up with the right leg forward, using a longer run-up consisting of four thrower`s and four runner`s steps, so called the crossed step (the right leg over the left one). The throw was carried out like in the previous variation. The average result in javelin throwing with eight step run-ups was 38.54 m, and the longest throw was 54.60 m.

Conclusion

Based on the research on the mode of performing javelin throwing at the ancient Games in Olympia as well as on the really possible way of performing the event, the conclusion is as follows:

The experiment showed that the ankyla should have been 1.30 m longer in order to be wound properly, i.e. according to the description of the writers who dealt with the subject.

There is a little difference between the averages results of the javelin throwing with four step or eight step run-ups (2.24 m), still the better results are achieved with longer run-ups, i.e. with eight step run-ups. According to these (and the fragments on the ancient vases also suggest the same) it is possible to presume that the athletes of the ancient Greece, at the Games in Olympia, probably threw a javelin after several step long run-ups, that being the matter of their choice.

Since lighter and shorter javelin was used in the experiment, 500 g heavy, 2.30 m long and 2 cm grip diameter[10] (a modern javelin is 800 g heavy, 2.60-2.70 m long and 2.5-3 cm grip diameter) the lesser effect of the air resistance force was observed (when compared to the modern javelin) and therefore the throw was shorter. However, the use of ankyla compensated that, providing the javelin to have relatively high course of flight (it stuck almost always) and at relatively distant point, regarding the conditions of the run-ups on sand. The ankyla used to unwind during the flight and most often it used to fall at 15-20 m ahead of the point where the javelin would stick into the sand.

Since the records on the distances achieved were so contradictory, the fact taken from the Encyclopedia of Physical Culture stating that the average distance a javelin had been thrown was 46.22 m, seem to be acceptable. In other words, the average value of the results of the subjects in the experiment was 38.54 m, allowing that the average difference of 7.67 m between the

[10] CD1-ROM (2000). It is stated in the chapter about javelin that a wood javelin, 2.30 m long and 400 g heavy was used in the competitions in the ancient Greece.

results is possible, since the ancient Greek athletes had had special preparations for the competitions at the Games in Olympia.

One of the subjects had 54.60 m a long throw which turned to be the longest one, performed in the javelin throwing with eight step run-ups. It is difficult to imagine that light wood javelin having small surface and with run-up on sand could have flown over 90 m when compared to the modern javelin and the modern elastic material used in run-up area.

The results of the three performed modes of javelin throwing showed that longer throws were achieved by longer run-ups. Considering the fact that the mode of performing javelin throwing at the ancient Games in Olympia was similar to the mode applied by the subjects in the experiment as well as the opinion of a large number of authors that the ancient mode of javelin throwing is similar to the modern one, all that lead to the conclusion that the mode of performing javelin throwing has not changed for centuries. Based on the fragments of the Greek vases from the ancient times, I presume that javelin throwing was performed without run-ups (Fig. 4) and with run-ups (the crossed step in the fig. 6 suggests that).

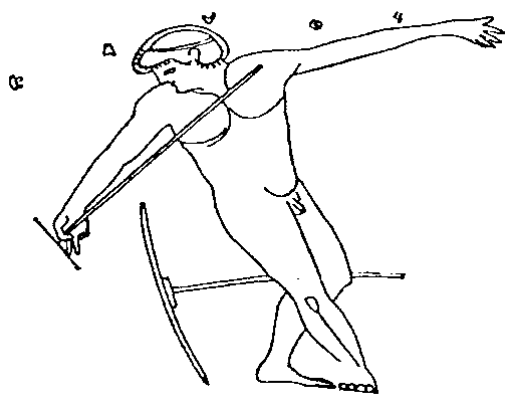


Fig.6

Concluding logically it is possible that javelin throwing without run-ups was performed in earlier periods of the Games. Later, wishing to achieve longer throws, javelin throwing with run-ups started to be performed . The run-up

could not have been longer than 14 m, i.e. the longer one was not necessary because of the light javelin and the sand surface, and the run-up area itself could not provide it.

Literature:

1. Arlott, J. (1975): The Oxford Companion to Sports & Games, Oxford University Press, London.
2. Cermanović-Kuzmanović, A. (1980): Grčke slikane vaze, Naučna knjiga, Beograd.
3. Christopoulos, G. A. & Bastias, J. C. (1982): The Olympic Games in Ancient Greece, Ekdotike Athenon S.A., Athens.
4. Encyclopaedia Britannica (2001), CD-ROM, Britannica Centre, Chicago.
5. Enciklopedija fizičke kulture A-O, (1975): Jugoslovenski leksikografski zavod, Zagreb.
6. Enciklopedija fizičke kulture P-Ž, (1975): Jugoslovenski leksikografski zavod, Zagreb.
7. Filostrato: Περη γιμναστικης - La gimnastica (prevod i komentar na italijanski jezik Vincenzo Noccelli), Editrice HERMES, Napoli.
8. Gardiner, E. N. (1910): Greek Athletic Sports and Festivals, Macmillan, London.
9. Γιαννακη, Β. Θ. (1998): Ιστορια φισικης αγωγης, Παιανια Αττικης, Αθηνα.
10. Ilić, S. (1994): Istorija fizičke kulture - Staro doba i srednji vek, Fakultet fizičke kulture Univerziteta u Beogradu, Beograd.
11. Η εγκυκλοπαιδεια των Ολυμπιακων αγωνων το Ολυμπιακο πνευμα, CD1-ROM (2000), Multimedia, Ευρωπαικο πολιτιστικο κεντρο Δελφων, Αθηνα.
12. Killianin, L.; Rodda, J. (1976): The Olympic Games, Barrie & Jenkins, London.
13. Miller, S. (1979): Ancient writers Papyri and inscriptions on the ideals of Greek athletics and games, Arete, Chicago.
14. Mind and Body: Athletic contests in ancient Greece, Ministry of Culture, The National Hellenic Comittee, I.C.O.M.

15. Μουρατιδη, I. (1992): Ιστορια φυσικης αγωγης, Εκδοσεις K. Χριστοδουλιδη, Θεσσαλοωικη.
16. Olympia - 2.800 years of athletic games, From ancient Greece to the modern revival, CD-ROM, Finatec, Multimedia, under the auspices of the Greek Olympic Committee, Athens.
17. Palaeologos, Cl. (1976): The Ancient Olympic Games, The Olympic Games, Barrie & Jenkins, London, pp.24-26.
18. Pausanija (1994): Opis Helade, Matica srpska, Novi Sad.
19. Petrović, J. (1963): Prilog izučavanju discipline bacanja koplja u antičkoj Grčkoj, Fizička kultura, Beograd, 3-4, str.176-182.
20. Pindar, (1952): Ode i fragmenti (preveo sa grčkog jezika T. Smerdel), Matica Hrvatska, Zagreb.
21. Sirracos, C. L. (1984): The History of the Olympic Games - From the Antiquity to the Present Times, Eurotype S. A., Athens.
22. Stefanović, Đ. (1992): Atletika 1 - Nastanak i razvoj atletskih disciplina, SIA, Beograd.
23. Swaddling, J. (1999): The Ancient Olympic Games (second edition), British Museum Press, London.
24. Yalouris, A. and N.: Olympia (1995): Guide to the museum and the Sanctuary, Ekdotiki, Athens.
25. Zissimou, T. (2000): The Olympic Games in Antiquity, Tinna Zissimou, Glyfada.

Web sites:

The Olympics Through Time - http://www.fhw.gr/projects/olympics/
The Ancient Olympic Games - http:/www.ecnet.net/users/gemedia3/Olympics/olympics.html
The Athletic Events of the Ancient Olympic Games - http:/www.perseus.tufts.edu/ cl135/Students/Kristina_Angus/content.html
The Ancient Olympics - http:/www.upenn.edu/museum/Olympics/olympicintro.html
The Olympic Games - http:/www.culture.gr/2/21/211/21107a/og/games.html

A RESEARCH ON MODE OF PERFORMING ATHLETIC EVENT LONG JUMP AT ANCIENT OLYMPIC GAMES

The results of this study were presented at 8th International Congress of the European Committee for Sport History, Olympia, (25-28 September 2003). The author does not have any information on the publication of the paper in its entirety, while the abstract is published in: ***Šiljak, V. (2003). Long Jump Mode of Performing at Ancient Olympic Games. In: 8 Διεθνεσ Συνεδριο Ευρωπαικχσ Εταιρειασ ιστορικων Φυσικχσ Αθωθχσ = 8th International Congress of the European Congress of the European Committee for Sport History, pp. 104-105.***

A RESEARCH ON MODE OF PERFORMING ATHLETIC EVENT LONG JUMP AT ANCIENT OLYMPIC GAMES

Introduction

The subject of this research is a complex one, since it concerns athletics, history, history of art and archeology. Intensive studies in this field began with the renewed Olympic Games in Athens in 1896. The beginning of new millennium and modern technology has brought the first attempts of animations regarding the possible modes of performing the events at the ancient Olympic Games, among which was the long jump.

The subject of this research is the phenomenon of possible mode of long jump performing at the Games in Olympia. Having surveyed the papers dealing with this subject, I have observed that the modes of performing the long jump were inadequately described by many authors, showing even a certain degree of contradiction and causing doubt in regard to possible way of performing the event.

The aim of this research was to define the most authentic mode performing long jump at the ancient Olympic Games.

Former research

The reconstructions of possible versions of long jump techniques used at the competitions in ancient Greece, as well as the fact that the same athletes participated in various games (Isthmia, Nemea, Delphi etc.) can suggest the possibility that the same techniques were used at the Games in Olympia. We can get an idea of the way long jump had been performed based upon the analyses of the depictions on the Greek vases and representations by many authors.

E. N. Gardiner having analyzed the vase depictions[1] (fig.1) stated that the ancient Greeks definitely performed the standing long jump as well as the one with the run-up[2].

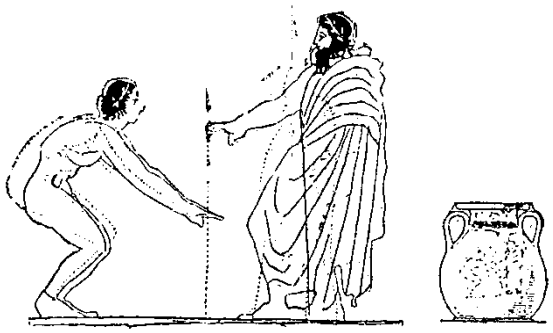


Fig.1

Describing the competition program of the ancient Olympic Games, C. Dill gave a short description of performing the long jump with halteres (*αλτηρες*)[3] pointing out that to cover a vast distance the competitors climbed on the elastic board[4].

J. Petrović in his research work stated that according to the designs on the vase paintings, it could be presumed that the standing jump and the jump with run-up had been performed. He suggested that the run-up was a short one because a large number of halteres had a hole for the finger making it impossible to drop such a haltere in a moment[5].

Θ. Γιαννακη thought that there were two variants of the long jump in Greece: with and without halteres, but always with one step run-up[6]. That supposition was based upon the analysis of the pictures on the Greek vases of that period. He assumed that it was difficult to perform such a jump.

G. A. Christopoulos & J. C. Bastias[7] also studied the modes of performing the long jump. The run-up of the studied variant consisted of two runner's steps, while the landing was the similar to the one performed today.

A. Ćirić[8], Π. Βαλαβανης[9], E. Σπαθαρη[10] and J. Swaddling[11] described performing of the long jump using the same representation.

M. A. Χρονης analyzed the reconstruction of the long jump with halteres in the ancient Greece according to M. Papamichailou[12] and found out that the athletes approached the take off spot after a short run-up with the highest possible speed.

T. Zissimou presumed that if the athletes had had the run-ups for their long jumps, they could not have been long ones because their halteres were unwieldy[13].

The animation of the mode of performing the long jump with halteres at the Games in Olympia was shown on two CD-ROM's, the one is "Encyclopedia of the Olympic Games in the ancient Greece"[14] and the other is "OLYMPIA – 2800 years of the athletic games"[15].

It can be observed that all the authors thought that the positions of the legs during the flight phase of the long jump with halteres were alike and it would correspond to the today's bent version of the long jump.

Methodology of research

Historical, experimental and statistical methods were applied in the course of this scientific research. The historical method consisted of several phases, with the special attention given to heuristics. The experimental method consisted in performing long jumps. The achieved results were measured and recorded by video camera. The results of the study were analyzed by applying descriptive statistics procedures in order to point out the differences in the values of the achieved results.

The sample subjects (N=5) of this research were the students of the Faculty of Sports and Physical Education in Belgrade. This research had been preceded by a pilot one carried out on 14 students.

The variables were the following modes of performing the event:

- standing long jump,
- long jump with one step run-up,
- long jump with six step run-up and
- long jump with twelve step run-up.

The description of the technique and the way of measuring – The choice of all the variants in performing long jump and the halteres used on the occasion (weight 1.6 kg and length 24 cm – fig.2) was based on the former reconstructions of the event (animations, representations, depictions and written materials). The experiment was conducted on a sandy flat ground

near Belgrade. The subjects were barefoot wearing only sport shorts. They jumped three times and only the best result was taken into consideration, measured with the precision up to 1 cm. The take off spot was the line marked in the sand. After the jump, the landing had to be on both feet, with half bent knees. The landing followed by a fall sideways or to the gluteus area, was not taken into consideration.

Fig.2

The result interpretation and discussion

The results of four modes of performing long jump are shown in the Table No.1.

SUBJECT	STANDING LONG JUMP (m)	1 STEP RUN-UP LONG JUMP (m)	6 STEP RUN–UP LONG JUMP (m)	12 STEP RUN–UP LONG JUMP (m)
1	2.30	2.10	3.15	3.25
2	2.45	2.56	4.10	4.91
3	1.88	2.07	3.78	3.89
4	1.99	1.91	3.29	3.41
5	2.62	2.63	4.12	4.17

Table 1 - The results of four modes of performing long jump

The descriptive statistics indexes of four modes of performing long jump are shown in the Table No.2. The data having been statistically processed, the following results were obtained: Range, Minimum, Maximum, Mean, Standard Deviation and Variance.

	N	Range (m)	Minimum (m)	Maximum (m)	Mean (m)	Standard Deviation	Variance
STANDING LONG JUMP	5	0.74	1.88	2.62	2.2480	0.3098	0.9597
1 STEP RUN-UP LONG JUMP	5	0.72	1.91	2.63	2.2540	0.3205	0.103
6 STEP RUN–UP LONG JUMP	5	0.97	3.15	4.12	3.6880	0.4507	0.203
12 STEP RUN–UP LONG JUMP	5	1.66	3.25	4.91	3.9260	0.6619	0.438

Table 2 - The descriptive statistics indexes of four modes of performing long jump

For better analysis of the mode the subjects moved, watching the video materials was more efficient than watching the photographs. Thus the general description of the way of moving of all the subjects was made for four variations of long jump.

Standing long jump

All the subjects started with slight half bent knees, swinging their stretched arms forward, halteres in their hands, up to the height of their shoulders. Then, they would simultaneously swing their knees together with the arc movement of their arms downward and to the back, to the utmost possible position, and then along the same curve back forward. From the position described they jumped off with both feet and the bent knees during the flight phase. They would land on both feet onto the sand. At the moment their bodies and arms were stretched most, they dropped the halteres from their hands. The fig.3 shows the moment when the subject is dropping the halteres to the front, i.e. just after they had drawn the subject forward due to the transmission reactive momentum. During the flight the body and the arms of the subject were stretched while the legs were bent, prepared to land on both feet. At the moment of landing, the arms were in front or laterally.

Fig.3

This natural way of moving through space is in conformity with the patterns present in the theory of sport, i.e. human locomotion. In order to achieve the best possible results when performing the standing long jump it is necessary to get the maximum impetus of the reaction from the ground. That was the reason that at the initial phase of the flight, the transversal axis of the body

was inclined forward. However, for the optimal landing that axis should be inclined backward as the only way for the feet to be placed onto the landing surface point[16] in which the gravity centre of the athletes' body would fall, what the subjects successfully accomplished by regular landing. The transmission reactive momentum of the arms, halteres in hands, while the body was extended, affected efficiently the subject flying further.

The average result in the standing long jump was 2.24 m, which is comparatively a poor result. Since the point of taking off was the loose surface, i.e. sand, and subjects were barefoot, they could not cover longer distances, because the taking off impetus was much weaker than in the taking off after a run-up, in which case the impetus value would be over 7000 N[17], the value achievable by today's best jumpers. Shorter distances can be explained by the fact that the subjects were supposed to land on both feet without falling on some other part of their bodies.

The figure 4 shows the representation regarding the mode of performing the standing long jump, halteres in hands. The authors of this representation (A. Ćirić[18]; Π. Βαλαβανης[19]; E. Σπαθαρη[20] and J. Swaddling[21]) obviously took over the representation of the standing long jump one from the other, so the same mistake occurred in all of them. It is unknown - who was the first that had had this representation. The positions 5, 6, and 7 from the above mentioned pictures do not correspond to the adequate phases of the jumps performed by the subjects that are real. It can be seen that the moment of dropping the halteres, according to those representations, is the one at the position 7, while during the experiment that moment took place at much earlier phase, i.e. just after the taking off, what would correspond to the moment between the positions 4 and 5. The conclusion based on the above is that the position 5 and 6 are not possible since the weight of the halteres draws the athlete much faster to the ground because of the force of gravity. It is well known from Athletics and Biomechanics that during the flight of a jumper, his gravity centre along the ballistic curve is determined at the moment of taking off and it cannot be altered by any movements that are by using different variants of techniques of the long jump. There are present so

called *apparent rotations* in order to put the body of a jumper into the position for better landing[22] by different movements of legs and arms.

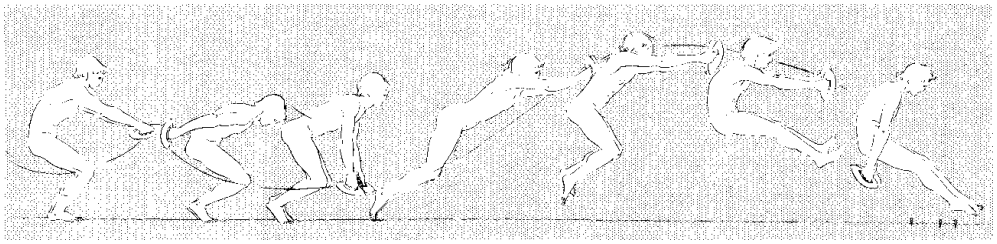


Fig.4

As for the performance of the standing long jump with halteres, as shown in the fig.5 (M. A. Χρονης), based on the reconstructions by M. Papamichailou[23], I strongly believe that the positions 5 and 6 are impracticable. I suppose that contemporary montage was done because it is impossible for a jumper to raise the gravity centre high (positions 5 and 6) i.e. above his head (position 4). It is also impossible to perform the landing onto the sand with the legs stretched, because it is not in conformity with theory and experience.

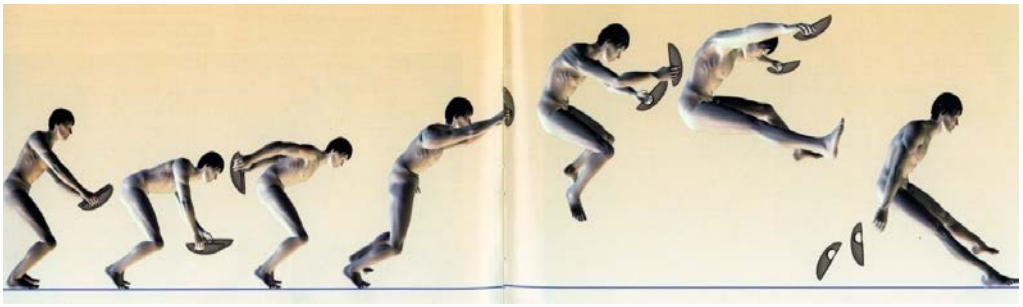


Fig.5

Long jump with one step run-up

All the subjects performed the long jump with one step run-up. There initial position was with the advanced leg and both arms in front. The step forward was performed simultaneously with the rotation momentum of both arms stretched. It is characteristic that within that one step of the run-up, the longitudinal axis of the body was significantly shifted forward. Actually, within that one step, the subjects performed a great change of the inclination

of their bodies – in the initial position the body was inclined backward, and after the step, the body was optimally inclined to the front. The vigorous jump was supported by the rotation swing of the stretched arms to the back and to the front. Just before the landing the halteres were dropped sideways to the feet or to the front.

The average result of the long jump with one step run-up was 2.25 m. The difference of 1 cm in favor of this mode of jumping when compared to the standing long jump is irrelevant, meaning that there is no difference in the jump length.

It is well known that an athlete can jump farther when performing the long jump with the take off with both feet, than in case of taking off with one foot. That can be explained by the ground impetus[24] i.e. the force by which a man indirectly conducts his movements. However, since a certain amount of locomotion is achieved in that short run-up, that advantage could be neutralized by a more powerful take off of the standing long jump.

Long jump with six step run-up

The subjects performed six runner's steps in the run-up which was approximately 10 m long. The way of running was similar to the running without halteres. The weight of the halteres and the extension as the forearm-hand system, caused a significant increase of the momentum of inertia in the shoulder articulation, because $I = m \cdot r^2$, when I – the momentum of inertia, m – the mass of the halteres and r – the distance between the centre of halter mass to the rotation axis in the shoulder articulation[25]. For that reason the subjects had to include also the agonist and antagonist muscles of the shoulder articulation in order to keep similar amplitude of the swing as in the case of running without halteres, as well as the length of the step on the loose base. Having performed the six runner's steps as a run-up, the subjects would take off with the left leg. At the moment of swing with the right knee upward and to the front, the left arm was in the front, while the right arm performed the rotation swing in the following direction: downward-to the back-upward-to the front with the higher or lower amplitude of movement in the shoulder articulation. During the flight, the arms would come up to each other, being almost parallel to the upper legs at the highest position of flight. The legs

were bent at the highest point of the ballistic curve line showing the flight of a subject. Just before the landing the halteres were dropped from the hands.

The average result of the long jump with six step run-up was 3.68 m. The fig.6 shows the representation[26] of the long jump with a shorter run-up which considered Christopoulos & Bastias – according to K. Iliakis. It can be noticed that the positions 2 and 3 do not seem very logical since it is impossible to perform a run-up moving simultaneously the same leg and arm (the position 2). Also, a swing with both arms low and downward in the phase of taking off cannot be performed.

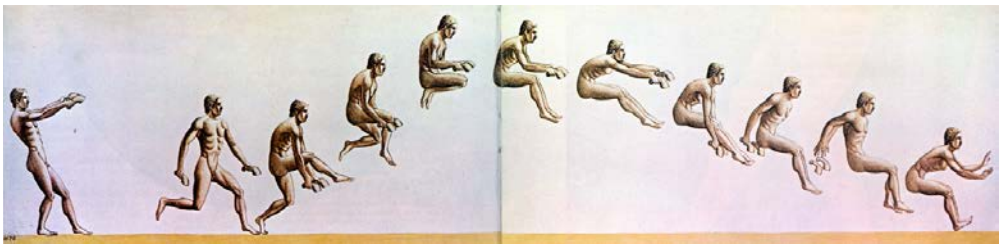


Fig.6

Long jump with twelve step run-up

The subjects performed the twelve runner's steps in the run-up which was 16 m long. The way of running during the run-up was the same such as the one in the long jump with six step run-up. The length of run-up made the only difference, causing additional exertion while running.

The way of performing the jump itself was the same as in the long jump with six step run-up.

The expected greater difference in average results did not occur in regard to the generating of certain amount of locomotion in twice longer run-up. That can be explained by running on the loose ground and by the additional weight in the hands.

Conclusion

Based on the research concerning the modes of performing the event of long jump at ancient Olympic Games, and the experiments of actually possible modes of performing it, the following conclusions are reached:

- There are differences among three modes of performing the event regarding the average and maximum length of the jump (the standing long jump, the long jump with six step run-up, the long jump with twelve step run-up) while the standing long jump and the long jump with one step run-up are almost the same.
- The authors of certain works took over the representations of the standing long jump, one from the other, thus the same mistake occurred in their works. The other authors, applying the modern montage showed certain positions which are not really feasible.
- All the authors stated in this research, that studied the modes of performing the long jump, always offered only the one of possible modes of performing the jump.
- All four modes of performing the long jump were possible, but at the different time periods during the existence of the ancient Games. It is probable that during the long history of the Games they appeared by the order they were described in this paper.

Notes

[1] Gardiner, E. Norman: *Greek Athletic Sports and Festivals*. London 1910, p.309.
[2] Gardiner: *Greek*, p.307.
[3] Gardiner: *Greek*, p.298.
[4] Dill, Charles: "Olimpija", in: 28 *Misao* 7-8 (1928), 461-470, p.468.
[5] Petrović, Jovan: "Skok u dalj – disciplina helenskog pentatlona", in: *Fizička kultura* 9-10 (1964), 439-444, p.442.
[6] Γιαννακη, Θωμα Β.: *Αρχαιογνωσια – φιλοσοφια αγονιστικης*. Αθηνα 1979, p.155.
[7] Christopoulos, George A. & Bastias, John C.: *The Olympic Games in Ancient Greece*. Athens [2]1982, p.181.
[8] Ćirić, Aleksandar: *Igre u Olimpiji*. Beograd 1996, p.283.
[9] Βαλαβανης, Π.: *Αθλα αθλητες και επαθλα*. Αθηνα 1996, p.79.

[10] Σπαθαρη, Ε.: *Το Ολυμπιακο πνευμα*. Αθηνα 1997, p.110.
[11] Swaddling, Judith: *The Ancient Olympic Games*. London [2]1999, p.70.
[12] Χρονης, Μ. Α.: *Ολθμπιακοι αγωνες*. Αθηνα, 2000, p.97.
[13] Zissimou, Tina: The Olympic Games in Antiquity. Glyfada 2000, p.41.
[14] CD1-ROM: *Η εγκυκλοπαιδεια των Ολυμπιακων αγωνων το Ολυμπιακο πνευμα*. Αθηνα 2000, animation.
[15] CD-ROM: *Olympia – 2800 Years of Athletic Games, From Ancient Greece to the Modern Revival*. Athens 2000, animation.
[16] Jarić, Srećko: *Biomehanika humane lokomocije sa osnovama biomehanike sporta*. Novi Sad 1992, p.182.
[17] Stefanović, Đorđe: *Atletika 2 – Tehnika*. Beograd 1992, p.124.
[18] Ćirić: *Igre*, p.283.
[19] Βαλαβανης: *Αθλα*, pp.78-79.
[20] Σπαθαρη: *Το ολυμπιακο*, pp.110-111.
[21] Swaddling: *The Ancient*, p.69.
[22] Stefanović: *Atletika*, p.126.
[23] Χρονης: *Ολθμπιακοι*, pp.96-97.
[24] Jarić: *Biomehanika*, p.153.
[25] Stefanović: *Atletika*, p.73.
[26] Christopoulos & Bastias: *The Olympic*, pp.178-179.

THE RUNNER'S PRACTICE SESSION IN ANCIENT GREECE

The results of this study were presented at the II International Sports Management Science Conference of the Faculty of Sports Management, Braća Karić University (Belgrade, 2006), and they were published in the Proceedings of the Conference: ***Šiljak, V.; Fragkiadakis, G. (2006). The runner's practice session in Ancient Greece. In the collection of papers. Belgrade: Faculty of Sports Management, Braća Karić University, p. 453-457.***

THE RUNNER'S PRACTICE SESSION IN ANCIENT GREECE

Introduction

Modern technology of sports training will always experiment with the latest developments, new methods, and probably new activities. It is assumed that the old, undiscovered knowledge from ancient Greece may have a small yet useful place both in the theoretical considerations and the improvement of practice sessions of runners for modern competitions.

The original works of Aristotle, Aristophanes, Philostratus, Galenus, Hippocrates, Pausanias, and so on point to the possibility of discovering new segments of the current practice space of the ancient Greek runners.

As the current knowledge on the current issues have been examined and amended only by historians and doctors, it does not exclude the possibility to do it by the experts in the field of sports, which is what has been done in this paper. This paper discusses the conditions under which the runners prepared for competition, how the coaches of that era conducted practice sessions, as well as the similarity of some of its parts with the practice session today.

Sparta

In Sparta, they practiced nearly all day. But in order to come to these conditions, the selection of children of Spartans (free citizens) was done first. If the child was sickly s/he was thrown from the Taygete mountain into the abyss. From age 7 to 20, children were brought up under state control in harsh conditions in order to become accustomed to suffering and obedience. Physical education in Sparta had a military character because the goal was good physical shape of future soldiers. The basic psychological and physical

traits were speed, strength, endurance, and agility, all necessary for successful warfare.

Young men in Sparta were always barefoot. Through walking and running they strengthened their foot and leg muscles, which later probably had an impact on achieving good results in running competitions. In other words, it was very good preparation and general practice.

One of the many exercises that were used in practice was hunting animals, that is, wildlife (Plato, 1977). Through this form of practice they developed speed, endurance and orientation in space. Back then, they probably ran in the woods or on the hills, uphill and downhill, like today. The only difference was that back then they ran barefoot, while today runners wear sneakers.

Xenophon (1981) specifies a type of running practice, which consisted of teaching the young Spartans to steal cheese which was placed in the temple kept by the guards with a whip. Only those who were quick were able to take the cheese and escape.

Pausanias (1981) specifies a type of exercise in the form of a competition that consisted of running across the bridge. The goal of the team was to get over the bridge to the other side of the river as soon as possible. During the run it was allowed to impede the opponents and throw them into the river. The track was relatively short, so it can be said that this was a form of short distance running.

The toning physical exercise program was not the same for all. Only the older people had more difficult practice sessions because the Spartans were forbidden to put younger children through such exercise as they took their age and capabilities into consideration (Plato, 1977).

Athens

Along with the development of Sparta in the 8th and 7th century BC, Athens gradually developed and strengthened. In Athens, the state influenced the raising of children and orientation towards physical exercise. Until the age of

7, boys were raised by their families. After the age of 7, children were not taken away from the family, but instead they went to the gymnastics school (Palaestra) under the supervision of teachers or slaves, where they practiced different physical exercises, competed under the control of educators, learned different types of martial arts, running, swimming, and so on. The aim of such physical education was to develop physical beauty, strength and agility in boys.

In the period between 14 and 16 years of age, the Athenian youths attended grammar schools, which lasted until their 18th birthday when they became Ephebe. Their military training lasted until the age of 20. The goal of physical education in Athens was the same as in Sparta: the creation of a tough, determined, courageous and morally strong soldier able to defend his country against external enemies or slave rebellions (Ilić, 1987).

In Athens, physical education was not mandatory as in Sparta, but the Athenians gave it a lot of attention because they tried hard to develop it. How well the Athenians were physically prepared was evident from the historical event that took place at the Marathon field. After the battle with the Persians, the Athenians immediately returned to Athens (36,074 m), even though they were tired from the battle.

When they practiced running they used the space under the sacred olive trees at the Academy, which was one of the first, best and largest high schools in Athens (Mouratidis, 1990). When they practiced running they used the hills, where they developed speed as they ran down the hill and endurance as they ran up the hill (Aristofanis, 1994).

An exercise called “hyronomine" was used to improve running technique. It was used in conjunction with music to develop a rhythm and softness in running. The exercise consisted of arm movements, and the emphasis was on the proper functioning of the arms, which were supposed to move freely and naturally (Aristotle, 1993).

As the role of the arms in running was huge they used exercises with weights in their hands. There were two kinds of weights: one kind was called macrus,

and was used to strengthen the shoulders and arms, while the other kind was called sferoidis, which was used to strengthen the fingers. The weight ranged from 1.5 to 4.1 kg. It seems that the strongest athletes used the heaviest weights as athletes do today (Philostratos, 1953). They used long walks to develop endurance (Mouratidis, 1990).

Running back and forth was a special form of running, which was used as a suitable exercise for the development of endurance in specific back and forth running, applied in the fight against an opponent in a variety of war situations where soldiers fought without turning their backs so they could counter attack several times in the course of the battle (Ilić, 1987). It consisted of running on a 44-m long track, divided into 2-m sections. First, they ran forward for the entire length of the track, then they ran backwards for a distance shorter by 2 m (42 m), then forward again for 2 meters less (40 m), and then back again for 2 meters less (38 m), and constantly back and forth with a shortening of 2 m until they arrived to the middle of the track. They would continue running back and forth without stopping, only now they increased each section by 2 m, until the runner reached a point of running for the entire length of the section, which completed this exercise. This run actually had 44 sections or 43 changes in the direction of running, with the athlete running a total length of 1014 m.

In ancient Greece, the practice sessions of runners who were preparing to perform at the competitions in Olympia, Isthmia, Delphi, Nemea and other cities had a long tradition, left a mark on the life of those people, and a part managed to be preserved and transmitted to today's athletes. The renewed Olympic Games from the late 20th century confirm this.

Preparing the troops for war in the ancient cities of Greece (Sparta, Athens, Corinth, Thebes, Megara, etc.) can be considered a basic type of training for subsequent short-term competitions at numerous Games. So, Philostratos (1953) says that the coaching science invented and developed a competition program at the Olympic Games, and in parallel perfected the methods and means of training athletes. They used different types of exercises depending on the set goals.

The ancient Greeks had a special terminology for exercise (Philostratos 1953). Thus, for example, they used the following terms:

1. “gymnasium" - the so-called pre-exercises (today's toning exercises)[1],
2. “proparaskevi" - for warming up
3. "kataskevi" – for the main practice.

What they learned during practice had a foundation based on logic because they had very skilled coaches who used their knowledge in physiology, medicine, genetics, mechanics, psychology, sociology, and so on.

With regard to kinesiology, the science of movement, they had movement, exercise and gymnasium (pre-exercise), which corresponded to the how (method of execution), what (type of exercise) and where (place of exercise) of physical shape.

In pre-exercise, in terms of speed of execution, there was a division between the faster and the slower competitors, in terms of muscle between the toned and not toned competitors, and in terns of intensity between the strong and the weak competitors. Plato (1977) distinguishes between active and passive pre-exercise. Under active pre-exercises, he means those exercises that we can do ourselves, and under passive pre-exercises he means those that are performed with the help of instruments (rowing, horseback riding, etc).

The exercises were divided into isotonic and isometric exercises. Also, there were also exercises that were performed in one or more cycles. They used the same exercise at the beginning, which had a lower intensity, and in the middle of a practice session, which then had greater intensity.

The runners who were supposed to participate in the Festivity Games at Olympia were first selected. In the initial period of the Olympic Games, the selection was carried out among young men who only had good physical

[1] Galinos (1977), under the so-called basic exercises, included the exercises that were called “orhisis" - exercises which were very similar to today’s pre-exercises or introductory exercises used in practice

qualities, such as, for example, those who were good hunters or shepherds. Later on, as the Olympic Games program expanded, the selection of the runners was more systematic. The practice was every day, including walking exercises, start techniques, breathing exercises, and the tactics of running were taken into account (Giannakis, 1980).

In preparation for competitions, the runners were taught to compete fairly, not to prevent the opponent from passing them, not to push him or knock him down to the ground, not to hold him, not to run slantwise on the stadium, and not to use illegal means in order to win.

Concluding Remarks

Daily exercise of young men in ancient Greece was a habit, and not just a need to compete at the Olympic or other Games. The practice methods that the athletes in ancient Greece used in athletic events, such as running, in preparation for competing at the Olympic or other Games had certain similarities to the contemporary understanding of the field of sports practice of runners. The competition and practice rules were easier in the initial period of the Olympic Games, only to significantly develop in the 5th century BC. Today, the top practice sessions take place in technologically modern conditions, and are inconceivable without the planning and programming of the work on the computer.

Running is the foundation, the basics of every sport. Even in the track and field all-around (in the ancient Greece as well as today) the most represented events are the running events, and there is less jumps and throws. Thanks to the recorded information on the practice sessions of runners in ancient Greece, although to a very modest extent, we can still get a clearer picture of the preparation of runners of that time for competing at the Olympic or other Games, as well as some similarities and differences with the current method of preparation.

Bibliography

1. Aristofanis, (1994): Nefeles, Zaharopoulos, Athina.
2. Aristotelis, (1993): Atinon Politia, Kaktos, Athina.
3. Christoppoulos, G. & Bastias, J. (1976): The Olympic Games, Ekdotike Athenon S.A., Athens.
4. Enciklopedija fizičke kulture - 1, A-O, Jugoslovenski leksikografski zavod, Zagreb, 1975.
5. Galinos (1977): Protreptikos Logos, Papiros, Athenis.
6. Γιαννακη, Β. Θ. (1980): Φισικης αγωγης κε ο αθλητισμός, ΤΕΦΑ, Αθηνα.
7. Filostrato (1953): Περη γιμναστικης - La gimnastica (prevod i komentar na italijanski jezik Vincenzo Noccelli), Editrice HERMES, Napoli.
8. Ilić, S. (1994): Istorija fizičke kulture, Fakultet fizičke kulture Univerziteta u Beogradu, Beograd.
9. Jakševac, I. (1954): Muzika i Olimpijske igre, Fizička kultura, Beograd, 1983, br.1.
10. Kurelić, N. (1954): Atletika, Sportska knjiga, Beograd.
11. Μουρατιδη, Ι. (1990): Ιστορια φυσικης αγωγης (με στιχια φιλοσοφιας), Θεσσαλοωικη.
12. Pausanias (1981): Lakonika, Papiros, Athena.
13. Petrović, J. (1966): Discipline trčanja u antičkoj Heladi, Fizička kultura, Beograd, br. 1-2.
14. Platon, (1977): Nomi, D. Papadimas, Athenis.
15. Stefanović, Đ. (1992): Atletika 1 - Nastanak i razvoj atletskih disciplina, Samostalno izdanje autora, Beograd.
16. Ćirić, A. (1996): Igre u Olimpiji, Vreme knjige, Beograd.

THE ROLE AND SIGNIFICANCE OF GYMNASIUM IN PREPARATION OF THE YOUNG FOR COMPETITIONS IN THE ANCIENT GREECE OLYMPIC GAMES

The results of this research were published in a local scientific journal of national importance ***Ioannidis, T.; Stefanović, Đ.; Kariotu, M.; Šiljak, V.; Mijatović, S. (2008). The Role and Significance of Gymnasium in Preparation of the Young for Competitions in the Ancient Greece Olympic Games, Physical Culture, Belgrade: 62, 1-2, p. 75-83, pict. 7, ref. 21***

THE ROLE AND SIGNIFICANCE OF GYMNASIUM IN PREPARATION OF THE YOUNG FOR COMPETITIONS IN THE ANCIENT GREECE OLYMPIC GAMES

Introduction

Symposion – conference, discussion accompanied by food consumption (Gianaki, 2000), was part of the youth's culture. The same culture found its other sense through **gymnasion** – practising areas. Greek society was the first to realize importance of sport for general culture. The schedule of international festivals in which top athletes competed (the Olympic Games being only the most famous among them) was established in the VI century B.C. (Christopoulos & Bastias, 1976). The athletes were famous personalities in their home towns, showered with gifts and victor's hymns written by personalities such as Pindar (1996), but oddly enough team sports did not exist notwithstanding the significance of a group in these and in many other activities. The boys spent great part of a day in **gymnasia** where they practiced, spent time in discussions or other working activities (Muratidis, 1992). It is not accidentally that two wellknown **gymnasia**, Academia and Lyceum, gave name to two famous schools of philosophy, Plato's and Aristotle's, because those philosophers developed their activities intentionally close to the practising areas.

Method

The research used **method of theoretic analysis,** as basic method to bring logically into harmony the collected data about the phenomenon of **gymnasion** which had significant role in preparation of the young for competitions in the Olympic Games of ancient Greece. It is well known that history is science with particular scientific methods to reconstruct and describe as credibly as possible the past events, in this case events related to

exercising of the youth in **gymnasia** in ancient Greece. Therefore, we used **historic method** in all phases of historic research. It involves a set of specific procedures directed at revealing of the truth on events that had happened in the past and it consisted of four phases (Šiljak, 2007):

1. Collection and recognising of the sources (heuristics).
2. Criticism of the sources – determination of the degree of credibility and originality of the sources consists of criticism of the text (external criticism) and criticism of statement (internal criticism). Criticism of the texts determines the state of the source text, time and place of its origin, while the criticism of the statement assesses and verifies the level of truthfulness of what the source is telling us.
3. Synthesis – generalization and linking of critically verified facts.
4. Exposition – presentation, i.e. announcing of the results of historical research in oral or written form.

Results and discussion

Gymnasion – upbringing and educational institution

Education in Athens for children aged 7 to 14 was traditionally done in three fields: literature, **physical education,** and music. There were:

- Grammar schools – giving instruction in reading, writing and calculation.
- **Gymnastic schools** (palaestra) – where various physical exercises were performed, competitions supervised by the **paidagogi**, different types of fighting were taught, as well as swimming and others.
- Music schools – in which singing and playing the various instruments as well as dancing were taught (Ilić & Mijatović, 2004).

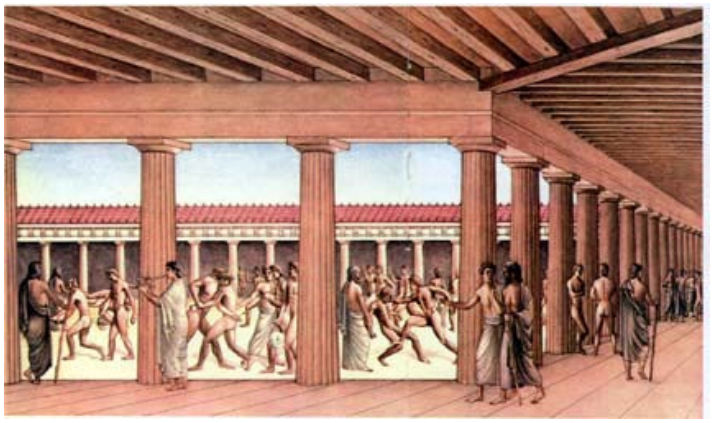
In his work **Politics** Aristotle (1984) explained the element of the educational and instruction system in ancient Greece: „ There are mostly four subjects which are usually taught: grammar, **gymnastics,** music and sometimes drawing. Grammar and drawing are taught because they are

useful for life and have manifold applications, and gymnastics because it makes people courageous... Music is not beneficial to health and physical strength as gymnastics is, because music does not produce neither health nor physical strength.“ Aristotle not only offers explanation why gymnastics is indispensable for the youth, but clarifies it through examples. He says: “So, we agreed that gymnastics need to be applied and how it should be used. Until puberty lighter exercises should be **used, avoiding the compulsory nutrition regime and compulsory efforts to prevent the development. There** are reliable proofs that it can happen: among the Olympic winners, one can find only two or three who won both as boys and as adult people, because strenuous exercises practiced while they were children, exhausted their strength. But, if three years from the beginning of the puberty are dedicated to other sciences, then in the years to come they can be subjected to efforts and strict nutrition regime. One should not put effort on body and mind at the same time, because the aims of these two efforts are contrary i.e. physical effort impedes thoughts, and mind effort impedes the body.”

Physical education was carried out at practising areas, which were initially simple and consisted of a running track (**dromos**). Later, beside the running track there were children exercise grounds – **palaestra**.

When both facilities merged into one whole, it was named **gymnasion** (Ilić & Mijatović, 2004). The main building of Greek gymnasia was palaistra. At the age of 14 to 16 the boys from Athens attended **gymnasia** (Ilić & Mijatović, 2004). The main person in the gymnasium was **gymnasiarchoi** (Skiadas, 1997). The best ones had chances to participate in Panathenia and Panhellenic games, and the top ones were lucky to appear in the stadium at Olympia. When they reached the age of 18 the boys would move into the **ephebei**, which lasted until the age of 20. After that they became soldiers.

Picture 1. Ancient Greece gymnasium – reconstruction according to Iliakis (Christopoulos & Bastias, 1976)



Chronis (2004) gave an accurate description of the ancient Greece gymnasium: „**Gymnasium** was big and square shaped. Three sides had broad corridors with eaves, while the fourth side was twice broad again with eaves (probably to protect from rain and better protection from the sun). It was 192 meters long and it was called **dromos** or **xystos** and was used by runners at bad weather. In front of , i.e. outside the gymnasion there was another running track – **paradromis**, also long 192 meters (used for running at nice weather). Outside, little farther there was a palaistra, and next to it various rooms with different functions):

- **Apoditrion** – dressing room.
- **Elaiothesion** – room for anointing of the athletes.
- **Konistrion** – room in which the athletes covered themselves with powder or sand to an oiled body
- **Sferistrion** – room for with ball games.
- **Korikion** – room for boxing and pancration exercises with the **korikos** hanging in the middle
- **Efivion** – rooms where various lectures were held.
- **Loutron** – room for bath taking after the training (washroom). Before entering the bath they would remove oil with sand with the strigil.

- **Piriatrion** – room (similar to the Turkish hammam) with hot and cold water. During Hellenic and Roman period most gymnasiums had this room."

The functions of the aforesaid rooms indicate the existence of essential factors for successful implementation of the training process. When compared to today's sports of fitness centres a certain similarity can be spotted.

Activities in the gymnasium

The ancient Greece gymnasia had a curriculum of implementation of various activities. Through the analysis of significant examples one can gain an insight of the existence of certain activities and interpretation of their significance. The picture 2 displays „the manager of the palaistra with tool for leveling the ground, three spears and a discus hanging on the wall from the period around 480 BC." (Ćirić, 1996). It is assumed that the manager instructed the youth in the stated activities through his personal example, as the army leaders were in the first lines of combat. Such an attitude probably influenced that all the boys carried out working and training activities with greater zeal. The explanation of the scene leads to a conclusion – **everybody in the palaestra took part in working tasks of preparation for training**.

Picture 2. The manager of the palaestra with equipment used in the training process

Picture 3 displays „a scene of a wrestler cleaning the terrain from stones and preparing the ground to make it soft for the fight. He is wearing a cap to protect his ears during the fight“ (Giof, 2004). The stated detail from the picture points out that the young men in palaistra and gymnasium, besides the physical activities directed at preparation for war and working character. It could be said that young men in palaistras and gymnasiums, **through a whole day planned physical activity** (working and training tasks), were qualified for later very efficient realizations on the field of **manifestation of physical abilities in war and at sports competition**.

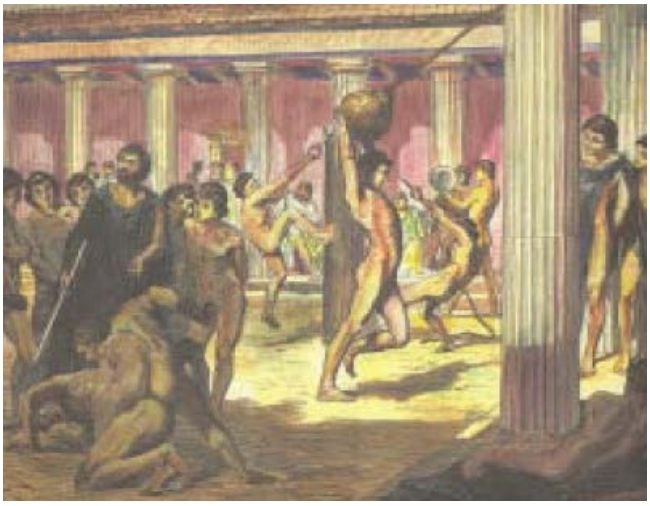
Picture 3. Young wrestler prepares wrestling field

In the found archeological value – cratire (Picture 4) Chronis (2004) by describing the events from ancient Greece, tried to interpret the author's deed with the following words: "the scene from gymnasium in Athens was shown on a cratire of red figurative style, originating from 350 BC. Three naked young men, carrying a wreath on their heads, are getting ready for training. The middle man is pouring oil from a special bottle (**arybbalos**) into the hands of the second athlete. On the right side there is another young man who is holding a strigil. Fat and unfit body shows that they are very young. There are two bottles hanging from the wall and one strigil in the middle." The explained scene, presented in a very nice and preserved cratire, suggests a true picture of real everyday life in ancient gymnasium. It is presumed that the author did not want to present the bodies of the young in ideal proportions, but as they really were. Consequently, it can be concluded that the presentation of the young's preparation for training was displayed in possible everyday activity which existed immediately before the training.

Picture 4. Preparation of young athletes for training

In 1880 Falke, according to various memoirs, depicted also various sports and training activities of the young people in gymnasia. (Michalopulos, 2003). The choice of use of various sports and training activities points out that, with a certain restriction, they represented fundamentally important exercises in the process of preparation for sports competitions and war skills. It can be noticed that they used training facilities from the space of specific and comprehensive preparation.

Picture 5. The young man in gymnasium from the ancient Greece practices before the trainer



Everyday athletes' preparation for competition was observed, besides trainers by, philosophers, politicians and musicians. So Plato was a good philosopher but also a sports practitioner ("plato" means **broad back** and that nickname he gained from his own **paidotribe** who was his wrestling coach – and competed in the Isthmian games). He considered that good body had more capabilities and that while running and wrestling one should use **the principle of training of the entire body for speed and strength,** which was explained through a dialog of the citizen of Athens and Kleinia in his book **Laws**:

"**Athenianian:** in the war the most appreciated is physical agility of both legs and hands. Agility and speed of legs can serve for both running away and for pursuing; in battle at close range agility of hands is useful, and in a conflict between individuals, besides that power and strength are necessary.

Kleinia: Sure!

Athenianian: But, if we do not use arms, neither one or the second speed can offer us great benefit.

Kleinia: Sure!" (Platon, 1971). The principle of training the whole body for speed and strength, conceived by Plato, is used even today in sports practice, where **comprehensive preparation represents base for development of speed and strength**. It is known from modern technology of sports training that without basic preparations an athlete cannot have great achievements in competitions (Platonov, 1997; Stefanović & Jakovljević, 2004).

Flaceliere (1979) states that each palaistra (integral part of gymnasium) had at least one permanent **aulos player**: "His task was not only to improve with his music **warm up exercises**, today called Swedish gymnastics" but also discus and javelin throwing as well as other sports ". One of the roles of the aulos player was, by means of music which had rhythm, to help young men to master more easily regular performance of exercised used for warming up. These are today's warm up exercises, stretching of muscles and other movements. Thus, the ancient Greeks knew that to introduce young men by warming up into greater training efforts. On the other hand they took care

that the exercises be done in perfect movements where aulos player had additional role, while the coach had main role.

There was a special room for bath taking within the gymnasium (wash room) after the training, called **loutron**. After the removal of sweat, oil and dust by strigil, **ephebei** used sponges and special bath tubes filled with water to clean better their body– such a bath tube is presented on the Picture 6. the scene presents young men having a bath after training. Ancient Greeks knew that **hygiene** is important in order to have good **condition and health** (Giof, 2000).

Picture 6. Ephebei takes a bath after the training

Panhelenic sanctuaries were great gathering places where a man could show oneself before the audience from the entire Greece. After Delphi, Olympia was the second significant sanctuary, situated in the area of Elis on the Pelopones, dedicated to god Zeus, where the oldest and for ever most watched sports games were held – Festivity games at Olympia.

The Picture 7 presents a „scene of an athlete standing under the stoa in palaistra (it can be seen it is made of ceramics) with leather belts for boxing in one hand, and holding a palm branch in another as a winner. On the left hand side, you can see a pillar, on whose top there is a head of the god Hermes, protecting a young man in combat skills " (Giof, 2000). Based on the presented details it can be assumed that the author of this piece, wanted to show through symbols that the winners in combat events originated from palaistra and that they believed in God Hermes who was their protector. It means that not only the competition at Olympia had religious character, but

the **palaistra space** itself, where the **ephebei** used to train for sports competitions had a **character of a cult**.

Picture 7. Boxing victor

It points to knowledge that there was **syncretism of two spaces – for exercising and for competition**, which had a link of human (sports) being with something they consider sacred, spiritual and divine. It could hardly be imagined that the athletes behaved religiously only in competitions, because it is generally known that sport and religion were two significant social factors, which formed social environment in life of all people of ancient Greece.

Aristotle (1984) was the first to say that **gymnastics** belongs to a special **science branch** and that it **has a system of exercise using**: "In all skills and sciences which do not encompass only certain parts, but one complete field (still it has one part) whose task is to examine what is suitable for each individual subject (of that skill, i.e. science). For example, gymnastics should examine **what kind of exercising is suitable to which body, which exercise is the best,** because the body which was naturally gifted and made the most beautiful must have as appropriate the best type of exercises and finally, **which exercises are good for everybody**. That is namely the task of gymnastics. And if someone wants to have well shaped body and regular posture and if he does not want to know gymnastics' rules, that does not diminish the duty of the trainer and of athlete to be able to develop that ability (feature). We see the same happening even in medicine…". From the

above stated text it can be noticed that ancient Greeks knew about the system of preparation of the young in sports competitions. In compliance with that they conceived **competitions for three age categories** (Pausania, 1994). Today it would correspond to the categories of pioneers, juniors and seniors (Stefanović, Ioanidis and Karioty (2008).

De Boton (2002) states the following on Sokrates' method of logical thinking, regarding the knowledge: "In order to follow Sokrates' example, when faced with the criticism we should behave as athletes training for the Olympic Games... SOKRATES: One should work and exercise, as well as eat and drink, according to the instructions of one's instructor, who possesses **expert's knowledge**, and not according to the opinion of the remaining world." Sokrates supported an opinion that coaches were experts, because they possessed "understanding and knowledge". Under that he probably presumed that they were good paidagogoi who basically possessed knowledge on execution of training process.

By studying ancient literature Muratidis (1992) wrote: "Plato often mentions coaches named **gymnastes** together with doctors, while Aristotle thought that he possessed special knowledge to prepare athletes. Philostratos used to say that **gymnastes knew theory and practise** when it comes to athletes training and **paidotribes knew only practice**." Muratidis (1992) states for coaches: „ **Gymnastes** was as we would say today, trainier of professional athletes or to those who would try to win in great sports competitions and to become popular in the entire ancient Greece."

Since 4th century B.C. **coaches specialists** had appeared for various sports, who had to know other sports as well. The training commences with stretching (programming), where more factors were taken into consideration: facility (outside or inside), place, climate conditions, part of the day, training quality, physical and psychical state of an athlete (Komitudis, 2004). A new training system appeared – **tetras**, a cycle of 4 days with different training (Philostratos, (1992). It was in fact the beginning of the first **microcycle.**

The coaching science had its point of departure in ancient Greece, where there were recommendations for training under health aspect and

preparations for cult competitions, all in function of well prepared soldiers for war. Philostratos (1992) ancient Greece writer was the first to present all knowledge so far and experience of the coaches of ancient Greece. He says that **training science** invented and developed competition program in the Olympic Games and parallel with that improved methods and training means of training in athletes which was implemented in gymnasia.

By studying references from the ancient Greek and comparing it with modern knowledge form the field of sports training Stefanović, Ionanidis and Kariotu (2008) reached the following standpoint - in Ancient Greece as well as today, sports training involves coaches specialists, people from sports medicine, scientists and others. The structure of the training in ancient period remained almost the same until today. They knew the training principles. Once training used to be sketched, and today we use computer technology of planning and programming. Music was used on training and competition as a stimulating factor of achievement of success/results in the selected sports activity. Similar things occur today in the process of sports training and in competition. Significant is the space of recovery to which great attention is and was devoted in both periods. In ancient Greece it was spoken about training science at that level of knowledge, as it is spoken today – corresponds to new technology of sports training. Using of terminology, selection of athletes, categories of competitors, comprehensive preparation, using of optimal load in training, knowledge of periodisation (micro cycles), nutrition and other links knowledge of that time and today's knowledge on sports training – and finally two sports cultures from various time periods.

Gymnasium was not only the place where a person would occasionally drop in to warm up, but **educational upbringing institution** which **cherished the culture of body and mind.** The facility itself most often was located in the city centre, and as for example in Alexandria ranked among the most beautiful buildings. What is more important, all full members of the city community were expected to belong to the **gymnasion**. The conditions for accession were strictly fixed. For continental Greece there are evidences that membership excluded (among others) slaves, liberated slaves, their sons and those involved in dirty business. Probably these rules in newly established

cities practically excluded almost all those who were considered non Greeks. It means that one of the key institutions on which Greek city culture was based was **gymnasion** – gymnasium.

Conclusion

In ancient Greece each polis wanted to have its own competition but also the winner in another towns (the success of politics through sport – as it happens even today). The appearance of popular sports games (at Nemea, Delphi, Isthmia, Athens and other cities - states), which essentially represented **competition system**, influenced the creation of the **system of physical exercising** called **gymnastics** – training only for sports competition, which was implemented in gymnasia. The research results resulted in some new knowledge from the field of gymnasium phenomenon in preparation of the young for sports competitions, whose culmination were the Festivity games at Olympia. That is the way to approach to those who are eager for knowledge and enlarge it with everything. The conclusions reflect in the following:

- Spatial conditions for training in gymnasia were functional and well conceived.
- Trainer's knowledge in gymnasium was on a high level.
- The scientific system of practicing existed in gymnasium.
- There was an ontologic approach of body development in gymnasium which reflected in the harmony of body and mind.
- Everyone in the gymnasium participated in working activities – tasks .
- Besides the instruction educational character, gymnasium had also cultural character.
- Gymnasium was one of the key institutions on which the Greek culture was founded.

References

1. Aristotel, (1984). *Politika* (Politics). Beograd: Beogradsko izdavačko-grafički zavod.
2. Christopoulos, G. & Bastias, J. (1976). The *Olympic games*. Athens: Ekdotike Athenon S.A.
3. Ćirić, A. (1996). *Igre u Olimpiji* (*Games at Olympia*) Beograd: VREME.
4. De Boton, A. (2002). *Filozofske utehe*. (*Philosophical consolations*) Beograd: DN Centar.
5. Φιλοστρατος (Filostratos) (1992). *Γυμναστικός – 'Επιστολαί. (Gimnastigos – Epistole)* Αθήνα: ΚΑΚΤΟΣ.
6. Flaceliere, R. (1979). *Grčka u doba Perikla.* (*Greece in Pericle's era*) Zagreb: Naprijed.
7. Γιαννάκη (Gjanaki) Θ.Β. (2000). *ΛΕΞΙΚΟ ΑΡΧΑΙΟΕΛΛΗΝΙΚΩΝ ΟΡΩΝ, ΟΝΟΜΑΤΩΝ ΚΑΙ ΠΡΑΓΜΑΤΩΝ ΑΘΛΗΤΙΣΜΟΥ. (Dictionary of ancient Greek terms and names in sport)* Αθήνα: ΙΔΡΥΜΑΤΟΣ ΟΛΥΜΠΙΑΚΗΣ ΚΑΙ ΑΘΛΗΤΙΚΗΣ ΠΑΙΔΕΙΑΣ.
8. Γουόφ (Guof), Ρ. (2000). *ΟΙ ΟΛΥΜΠΙΑΚΟΙ ΑΓΩΝΕΣ ΣΤΗΝ ΑΡΧΑΙΑ ΕΛΛΑΔΑ. (Olympic games in Ancient Greece)*. Μετάφραση: Μαρία Λεβεντοπούλου. Αθήνα: Εκδόσεις ΠΑΤΑΚΗ.
9. Ηρόνις (Hronis), Μ.Α. (2004). *Ολυμπιακόι Αγώνες. (Olympic games)* Αθήνα: ΦΗΓΟΣ.
10. Ilić, S. & Mijatović, S. (2006). *Istorija fizičke kulture* (*History of physical culture*). Beograd: D.T.A. TRADE", d.o.o.
11. Κομητούδης (Komitudis), Δ.Α. (2004). *Η ΠΡΟΠΟΝΗΤΙΚΗ ΤΩΝ ΑΡΗΑΙΩΝ ΕΛΛΗΝΩΝ. (Training of Ancient Greeks)* Αθήνα: Ελεύθερη Σκέψις.
12. Michalopoulos, T. (2003). *Athletics in Classical Antiquty*. Athens: EURODIMENSION L.T.D.
13. Μουρατιδη (Muratidi), Ι. (1992). *ΙΣΤΟΡΙΑ ΦΥΣΙΚΗΣ ΑΓΩΓΗΣ (ΜΕ ΣΤΟΙΧΕΙΑ ΦΙΛΟΣΟΦΙΑΣ. (History of physical education with elements of philosophy)* Θεσσαλονίκη: ΕΚΔΟΣΕΙΣ Κ. ΧΡΙΣΤΟΔΟΥΛΙΔΗ.

14. Pausanija (1994). *Opis Helade 1. i 2 (Description of Hellada 1 and 2).* Novi Sad: Matica srpska.
15. Πίνδαρος (Pindaros) (1996). *ΟΙ ΕΠΙΝΙΚΙΟΙ ΥΜΝΟΙ. (Epinikiji himne).* Θεσσαλονίκη: Κώδικας.
16. Platon (1971). *Zakoni*. (*Laws*) Beograd: Beogradsko izdavačko-grafički zavod.
17. Платонов, В. Н. (1997). *Общая теория подготовки спортсменов в олимпийском спорте. (General theory of athletes' preparation in Olympic sport).* Киев: "Олимпийская литература".
18. Σκιαδάς (Skiadas), Ε. Γ. (1997). *Ολυμπιακή Φλόγα η δάδα των αιώνων (Olympic flame – eternal torch).* Αθήνα: Μικρός Ρωμηός ΕΠΕ.
19. Stefanović, Đ. & Jakovljević, S. (2005). *Tehnologija sportskog treninga (Technology of sports training).* Beograd: Fakultet sporta i fizičkog vaspitanja.
20. Stefanović, Đ., Ioannidis, T., & Kariotu, M. (2008). Syncretism of coaching science in Ancient Greece and modern times. *Serbian Journal of Sports Sciences*, 2(1-4), 111-121
21. Šiljak, V. (2007). *Istorija sporta (History of sport).* Beograd: Fakultet za menadžment u sportu Univerziteta "Braća Karić".

SYNCRETISM OF RELIGION AND SPORTS SYNCE CONSTANTINE THE GREAT TO THE PRESENT TIMES

The results of this study were presented at The First International Scientific Conference of the European Section of History of Physical Education and Sports "Anthropological and Theoanthropological Aspects of Physical Activities From the Constantine the Great to Nowadays", Niš, (31 August -02 September 2011) and published in The Conference Proceedings: ***Šiljak, V.; Fragkiadakis, G. (2012). Syncretism of Religion and Sports synce Constantine the Great to the Present Times. In: Conference Proceedings, Niš: Faculty of Sport and Physical Education, ISBN 978-86-87249-43-1, pp. 468-474.***

SYNCRETISM OF RELIGION AND SPORTS SYNCE CONSTANTINE THE GREAT TO THE PRESENT TIMES

Introduction

The subject of this historical research refers to the syncretism of religion and sport since the times of Constantine the Great to the present ones. The aim of the research was to establish a possible connection between religion and sport. The historical and method analyses were used in the research. The results of the research showed that during the seventeen centuries long period different levels of their reciprocal relationship were present.

The connection between religion and sport has existed in the human civilization for a very long time. At the time of the primeval human community as well as during the ancient times, various forms of physical activities were incorporated in religion. Within the clan system, magic related ritual festivities were accompanied by dancing and various competitions. In the ancient Far East civilizations (India, China, Japan) all the forms of physical exercises were connected to the religion. Yoga, ritual dances, health gymnastics and war dances were, through every day routines, the inseparable part of the religion of the time. The advent of Buddhism brought even stronger religious impact on sport because the Buddhist monasteries were the martial arts schools as well: pugilism, wrestling, sticks fights, sword fights[2].

Development of the first city states (POLIS) in the ancient Greece caused development of sport, too. Numerous local competitions took place as a part of religious festivals. It was common for a city state to have exercise area, which was at the disposal of its citizens of all ages, all the time, not only for physical but for spiritual exercises as well: they were engaged in running, wrestling, throwing balls, discus or javelin, diving in the cold swimming

[2] S.Ilić (1994): p.57

pool water etc. Those areas were also the places of education, compulsory to all young men. The boys were trained for war as well as for the participation at local and Panhellenic Games.

The physical education was considered to be a very important part of education which together with its spiritual part contributed to the formation of a complete individual. All the areas of the Hellenic life were developed in the sphere of agonistics (competition), while that particular idea was developed through the wholeness of an individual man, through the unity of a body, soul and spirit. Agonistics and gymnastics brought together the ideal of kalokagatis, i.e. the harmony of handsomely shaped body and spiritual sophistication, and creating such an ideal enabled the creation of the vigorous people strong in body and spirit. Despite some differences among themselves, the ancient Greeks became aware of their spiritual unity exactly through different competitions. They considered the Games as a part of their religion. A competition was the means of encouragement and expression of the human arete[3]. Since the sport events were attached to religion in the ancient times, they were never organized separately but incorporated within religious festivities prepared to honour a god or a hero, in the area of a sanctuary, where apart from a temple and an altar there were also other buildings such as gymnasium, palestra, theatre, stadium and the horse-racing ring. These sanctuaries, which were in majority of cases the oracles too, frequented by all the Greeks, were at the same time the symbols of the national unity[4]. The most important *festivity games* of the ancient Greece were so called the Panhellenic (All Greek) Games: Pythian games devoted to the god Apollo, Isthmian games devoted to the god Poseidon, Nemean games and the most well-known among all the games – the festivities at Olympia in the honour of the god Zeus[5].

---

[3] „Arete is a feature of every man; that Greek word is usually translated as virtue, though it signifies every excellence which is different in different people. Arete does not emerge only from one enterprise or one accomplishment. It is aquired, gained by upbringing and cherished; individual cases only confirm it." A. Ćirić, 1996, p.23).

[4] V. Šiljak, (2007): p.42

[5] G. Christopoulos & J. Bastias (1982): p.82

The Religion and Sport since Constantine the Great till the Present Times

Constantine the Great, who lived by the end of the 3rd and the beginning of the 4th century, was the first Roman emperor who embraced Christianity, the religion of the persecuted minority before his time. Although at first the Christianity was forbidden, it was proclaimed the *legal* religion by Milan Edict of 313 A.D. Constantine the emperor started spreading the Christianity throughout the Empire and made the Christianity dominant religion of then civilized society. As the first Christian emperor he was a great benefactor (and founder) of the Christian church and he was canonised after his death.

The advent of Christianity as a new religion had a great impact on later stagnation of physical culture and sport. The physical exercises, therefore the given attention regarding the beauty of one's body were considered heretic by the Church which promoted asceticism and humility in every aspect. The church specially condemned all the Games and competitions because paganism was opposed to lecturing about faith of one and only God. Therefore the Festivities at Olympia were cancelled in 394 A.D. by the decree of *Theodossius* I and the gladiator fights were banned in 404 A.D. All the venues of the sport events (stadiums, circuses etc.) apart from the Byzantine hippodromes were closed down in 529 A.D. during the reign of *Justinian* II[6].

* * *

As a religion, Christianity had a tremendous influence on the life of medieval people. Besides nobility, the church itself became a major feudal force by gaining riches, authority and power, though it lectured the equality of all and asceticism. It cancelled all the forms of physical exercise and competitions claiming that it was the soul and not the body people were to take care about. Since the clergy overtook the care regarding education, it became partial. The monasteries, where there was no physical exercise, were the only places where literacy existed. Even though all sorts of physical activities were

[6] V. Šiljak, (2007): p.58

banned by the Church, some forms of exercises were done by noblemen's children and knights. The Church allowed physical exercise when it was necessary to make warriors well prepared for a battle. The warfare and hunting, which were the noblemen's spare time activities, required a person to be skillful rider and able to use different arms, as well as excellent physical fitness, that could be acquired only through regular and thorough and consistent physical exercising. We are familiar with the Crusades organised to liberate Christ's tomb, taking place from the 11th till the 13th century approved and supported by the Pope. At the times when there were no wars, knights' tournaments were organised enabling them to compete showing different skills. Serfs and their children took part in folk competitions (running, wrestling, throwing and pulling a bar). During these events, rules transferred orally from one generation to another, were followed. The competitions were held during the festivities on the occasion of various religious holidays[7], actually pointing out that those competitions were organised with the silent approval of the Church.

* * *

The time of Humanism and Renaissance brought back the ancient concept of the wholeness of a personality requiring harmonious development of body and spirit. In this period, physical education regains the significant role in the upbringing, thanks to numerous thinkers, pedagogues, writers and doctors. They pointed out in their works and practical actions the need and necessity of physical exercise, training as a part of upbringing and competition. At the time, the first ideas, suggestions and attempts to introduce physical education into schools appeared. Philantropium[8] - the schools that had important role in appearance and development of new, modern civic gymnastics systems - started to be founded in Germany. *Johann Bernard Bazedov and Johann Christofer Guts Muts*, having finished their theology studies, started their pedagogical activity and were one of the first Philantropium founders.

* * *

[7] V. Šiljak, (2007): p.79

[8] school, educational institution

Sport has been undergoing tremendous expansion during the modern times. The examples of permeation between religion and sport are numerous.

In 1891 in Springfield, Massachusetts, a young teacher, James *Neighsmith* at YMCA, invented a new sport game – basketball.

The Olympic motto "It is important to participate, not to win" was expressed for the first time by a Pennsylvanian bishop at the mass in St. Paul's in London, on July 19, during the fourth Olympic Games in London.

By the middle of 60s of the 20th century, the IOC published the letter by Pope Paul VI "The Church considers the human body to be a master piece. What else could accord more with the Creator's goals and the teaching of the Church, but physical exercise. But sport includes much more than a physical aspect. Such a school of loyalty! What an antidote to inertness and laziness! What a strict teacher! What a strict discipline it requires! Brotherhood and mutual respect, understanding of team spirit that is real honour for you! Where can we find, but within the Christian revelation, moral virtues that in such a powerful way contribute fulfillment of a human personality[9]."

The examples of connection between the religion and sport in our region are the instance of the establishment of SVIBOR, Serbian Alliance which was blessed by the Serbian Orthodox Church. The members of SVIBOR compete in martial arts and sport medieval skills according the rules of medieval times.

Vidaković M. (2007) having interviewed our well-known athletes, Mateja Kežman and Dragutin Topić, in his research, expressed their devotion to and affirmative attitude towards faith and God[10].

Today it is possible to see a lot of athletes praying to God *to win* before a competition (race, match).

[9] www.olympic.org
[10] Vidaković, M. (2007) p.221-225

Conclusion

This research establishes that religion and sport has been integrated since the days of yore till the present day. The mutual influence was significant for development of sport as well as for development of religion. Since the beginning of Christianity till today, different attitudes of the church regarding sport could have been observed. At first, practicing sport was considered as a heretic act. Then, theologians were those who introduced physical education into schools. Today, we can confirm existence of a strong interaction between sport and religion. Nowadays, athletes, along the demanding training process aimed at their physical predisposition, realize more and more, that they need spiritual balance as well, which they find in religion.

References:

1. Bojanin, S (2005) *Entertainment and festivities of medieval Serbia*, Belgrade: The Institute for History.
2. Christopoulos, G & Bastias, J. (1982) *The Olympic Games in Ancient Greece*, Athens: Ekdotike Athenon S.A.
3. Ćirić, A. (1996) *The Games in Olympia*, Belgrade: FFK (???)
4. Savić, Z.; Stojiljković, N. (2010) *Types of physical exercise in Medieval Serbia (XII – XIV centry)*, Belgrade: SJSS Nr 4, The Academy of Sport (Sportska Akademija). Pp. 91-98.
5. Stefanović, Đ. (2006) *Practicum of Sport Theory*, Mladenovac: FSFV.
6. Šiljak, V. (2007), *The History of Sport*, Belgrade: FMS
7. Vidaković, V. Miloš (2007). *The Christian Ethics and Sport*, Pančevo: Hadži Budiša Višnjić

www.fhw.gr/projects/olympics
www.olympic.org
www.olympics.tufts.edu/
www.manastir-lepavina.org
www.stadiummouse.com/religion
www.googlescholar.com

SUBJECT MATTER OF ANTHROPOLOGICAL RESEARCH IN SPORTS

The results of this study were presented at the 5th International Scientific Conference "Anthropological Aspects of Sport, Physical Education and Recreation", Banja Luka, (08 November 2013) and published in The Conference Proceedings: ***Šiljak, V.; Parčina, I. (2013). Subject Matter of Anthropological Research in Sports. In: Conference Proceedings, Banja Luka: Faculty of Physical Education and Sport, ISSN 1986-8146, vol. 5, pp. 158-162.***

SUBJECT MATTER OF ANTHROPOLOGICAL RESEARCH IN SPORTS

Introduction

Anthropologists and scholars from other social sciences and humanities indicate a link between social and theoretical changes that occurred in the late 1960s and early 1970s. The development and the growing importance of symbolic anthropology that occurs in this period means not only the questions about the functioning, integration and stability of society and social systems were no longer the center of attention, but also there was a different understanding of anthropology as a science compared to the previously dominant research paradigms. (Ivanović, 2008).

Being that it is necessary to think of any scientific discipline by comparing it with related sciences, Bošković (2010) in his book *A Brief Introduction to Anthropology* underlines some of the specifics of anthropology. One of the initial aspects of this author is the viewing of anthropology as a scientific discipline that gives voice to others and to people who are different. Starting with the idea of the *origins* of anthropology, in the introductory part the author brings up the question of meaningfulness of references to anthropology up until the nineteenth century through relativization of understanding so that the ancient writers such as Herodotus, Megasthenes and Tacitus, because of their interest in other peoples and cultures, could be considered the first ethnographers. One of the major arguments of those who believe that there is no anthropology before the Renaissance is the lack of continuity in the study of other nations between the ancient and medieval periods. According to Bošković, interesting descriptions of ancient Greece and Rome in the Renaissance era were left behind by Petrarch and Boccaccio in their lesser known works. Middle Ages are a significant period for two reasons: there was a need for *understanding* intercultural differences, and

there was an encounter between Europe and America, which left profound implications when it comes to human diversity. In the early 1970s, anthropology was criticized as a scientific discipline associated with colonialism. The author turns to modern anthropological theories which he divides into five thematic parts: identity, the study of the body with medical anthropology, consumption and material culture, the study of globalization, movement and hybridity, media, technology and popular culture, and problematizes important issues such as field studies, interdisciplinarity, as well as the application of anthropology. Reflecting on the future of anthropology, Bošković concludes that it is too much to talk about the crisis of anthropology and elaborates on how anthropology can be applied in everyday life.

In the paper *On anthropologists or anthropology is the sum of the intellectual careers*, Kovačević (2012) deals with the criticism of the division of four polarities in anthropology by American scientists in which linguists, archaeologists and physical anthropologists are considered anthropologists as well. He further divides anthropologists into two groups, anthropologists focused on themselves, which are grouped into the introductory-review types, conference committee-like types, and individual anthropologists and anthropologists turned towards others whom he recognizes as anthropologists-ethnographers, applied, action, militant and anthropologists who create anthropology. Throughout the paper, he discusses the role and importance of each of these groups of anthropologists, commenting on the importance of information technology in the field of international cooperation and data availability. Through this research article, the author gives a subjective and negative critique of anthropologists in line with the division that he made. It can be concluded that anthropologists are only those researchers who are listed in the literature that he used.

The changes that we have seen in the last decades of the twentieth century led to a redefinition of the relationships in the modern world, imposing a question of anthropological perspectives and possibilities of anthropological action, leading anthropologists to rethink and re-examine both the relationship between anthropology and the broader social and cultural

processes, as well as their classical formulation of the object and method of study. The main assumption in recent anthropological research is that sports are a ritual and a play at the same time and that as such represent a cultural construction that allows communication among all participants in sports. The content of this communication varies depending on the degree of formality, rigidity and concentration of meaning and redundancy.

Almost by definition, anthropology as a science in the past excluded the study of sports and competition as they were viewed as central features of the modern era.

Topic, purpose and method of operation

The topic of this paper refers to the anthropological research in the field of sports. The aim of this paper is to clarify and consider the uncertainties and errors in the field of anthropological research in sports in order to open new opportunities for research in the field of sports, in line with anthropology as a multidisciplinary science. In this study, the historical and bibliographic-speculative methods were applied.

Anthropology and sports

Following the development of anthropology of sports, it is important to keep in mind the relationship between different types of people, problems, institutions and those individuals who with their work shape both sports and anthropology. Sports and anthropology together lead to the understanding of the experiences within local communities, but their importance can be better seen when put into a broader and more complex framework of cultural environments.

The theory of production in anthropology is characterized by the lack of sports as a field of analysis for understanding rituals, complex processes of identity construction and sports performance. According to Levi Straus (1966), sports and games produce an asymmetry between winners and losers, and as such represent the principal characteristics of a competitive industrial society. In rituals, the asymmetry is assumed in advance, and it can be

initiated or uninitiated, sacred or desecrated, while in the game all participants are on the side of the winners through the very ritual of participation.

In the critical tradition of social theory presented by Bourdieu (1984), sports were introduced as a bourgeois mechanism for indoctrination of young people with *values* of nationalism, fanaticism, irrational violence, the cult of the competition and idols, and uncritical acceptance of the key values of capitalism. He emphasizes that one of the main effects of sports is the transformation of observers into *militant caricatures* conditioned by their imaginary participation in a sporting event.

Pointing out the importance of sports in social theory is largely associated with the influence of Norbert Elias and his later work. In his historically-sociological approach, Elias (1986) defines sports as a key area of development of the process of civilization of the European society. This process is characterized as a constant controlling of the legitimate use of force by the state, the development of social organizations that would mediate in defusing open conflicts between social groups and the development of codes of social behaviour directed towards exercising self-control. Sports are a typical free time activity that throughout historically have been meeting some of the required functions of consolidation of this process. He clearly emphasizes that self-control is the essence of sports, and that one of the key problems is how do we reconcile two contradictory functions: a desirable control of human emotions and causing excitement with keeping those same emotions under control. Modern sports are defined by clear rules that ensure equality among participants, make the increase of inner satisfaction possible and reduce individual tension.

It is clear that the anthropology perspective of Levi Strauss, the critical tradition of Bourdieu and historical sociology of Elias have something in common: sports are seen as an important area of analysis for better understanding of the functioning of modern society. In sports, self-satisfaction and fulfillment of the individual is closely linked to the creation

of winners, the escalation of nationalism in international competitions, and in some cases, an abnormal need for excitement and violence.

Sports, as pointed out by most social field researchers (Skembler, 2007), are a segment of the cultural reality which may be defined as marginal compared to some other social activities, such as economics, politics or education. Yet, this marginalization can be understood very literally, if one takes into account that sports in today's global culture are one of the most popular phenomena and that they directly or indirectly involve a large number of people. In this sense, the lesser importance of sports in the context of general social power loses its relevance if this phenomenon is viewed solely from the perspective of the study of popular culture, as it usually is, regardless of the great influence on the creation and reproduction of identity in the modern world (Đorđević, 2009).

According to Ivanović (2008), generally speaking, in the history of anthropology there has always been an *epistemological crack* or a division that has reflected the opposition between the natural sciences and humanities. More or less heated debates between the representatives of scientism and those who have criticized this epistemological position have marked different periods of the discipline's history and can be traced back almost to its origins.

A seminar called *Anthropological agora* was launched in 2009 in Belgrade by the Center for ethnological and anthropological research, Faculty of Philosophy in Belgrade. At the lecture called *Can anthropologists play football? Sports and identity in contemporary Serbia*, Ivan Đorđević showed that the study of sports as a phenomena of popular culture can monitor the ways in which irreconcilable identities are constructed, conflicted and reconciled and are related to the questions of existence of local (national) and global (European) identification project. Đorđević has examined the sources which he considered to be useful for exploring this phenomenon, whereby special attention is given to the reading of media texts in print. Interestingly, the presented results in this paper are a result of a research project no. 147021 *The anthropological study of communication in contemporary*

Serbia, which was funded entirely by MEST Serbia. The author has contributed in that, based on very scant literature, or on the basis of papers by colleagues that have been published on the topic of sports, he gave results that should be of importance for Serbia, considering the source of funding. He failed to use the papers by researchers in the field of sports with the topic he was working on, probably deeming them irrelevant.

Malešević Miroslava (2009) in her paper *The journey of the Olympic flame*: *Beijing as the guardian of the cult of European nations' past*, published in the SASA Ethnographical Institute Gazette as part of the project funded by MEST no. 147020, in the role of a researcher does not wish to deal with the reasons and causes of demonstrations held during the transfer of the flame for the Olympic Games that were held in Beijing in 2008. Further, she focuses attention on the images of street clashes and comments on the basis of visual impressions (page 12). On p. 19, she concludes that only the name of the Olympic Games, the marathon as a competitive discipline and a laurel wreath for the winner are taken from the ancient games as symbols. The fact that the marathon was never a competitive discipline at the Ancient Olympic Games and that the winners received a wreath of holy olive wood is not known to her. It is striking that neither in this nor in her other article, also published in the SASA Ethnographical Institute Gazette in 2010, she does not use the literature from researcher in the field of history of sports and Olympism.

Conclusion

In the field of anthropological research in sports, we see papers published in categorized journals and financed under a project by MEST RS, where the authors present their findings from a sociological point of view. This gives space for their analysis and critique within the methodology of scientific research in the field of sports. We see closely oriented interpretations of the subject matter of anthropological research. This way, the authors of the said papers direct future researchers to just one field of this multi-disciplinary science. The research results indicate that in the criticized papers by the said authors there is subjective criticism, visual estimation and material defects.

Contribution to the field of anthropological research in sports is shown through clarification and understanding of the analyzed confusion and errors in the field of anthropological research in sports in order to open new research areas in the field of sports, in accordance with anthropology as a multidisciplinary science.

Literature

1. Bourdieu, P. (1984). *Questions de Sociologie (Eng. Questions of Sociology)*. Paris: Minuit.
2. Bošković, A. (2010). *A brief introduction to anthropology*. Belgrade: Official Gazette.
3. Elias, N. (1986). *Sport and Leisure in the Civilising Process*. Oxford: Blackwell.
4. Levi-Strauss, C. (1966). *The Savage Mind*. London: Weidenfeld and Nicolson.
5. MacClancy, J. (1996). *Sport, Identity and Ethnicity*. Oxford: Berg.
6. Kovačević, I. (2012). On anthropologists or anthropology is the sum of the intellectual careers. *Ethno anthropological problems, year 7, vol. 1, page 19-34*. Belgrade: Faculty of Philosophy.
7. Malešević, M. (2009). The journey of the Olympic flame: Beijing as the guardian of the cult of European nations' past (I), Belgrade: *SASA Ethnographic Institute Gazette*, vol. 57 (1): 9-25.
8. Malešević, M. (2010). The birth of the Olympic flame: Ancient Greece and European identity (II), Belgrade: *SASA Ethnographic Institute Gazette*, vol. 58 (1): 7-25.
9. Moor, L. (2007). Sport and Commodification: A Reflection on Key Concepts. *Journal of Sport and Social Issues* 31/2: 128-142.
10. Đorđević, I. (2009). Can anthropologists play football? Sports and identity in contemporary Serbia. *Anthropology pg. 89-103.* Belgrade: Faculty of Philosophy.
11. Ivanović, Z. (2008). View of the modern transformation of anthropological theory and practice. *Anthropology 6. pg. 88-116.* Belgrade: Faculty of Philosophy.
12. Skembler, G. (2007). *Sports and society. History, power and culture.* Belgrade: Clio.

THE GAMES IN ANCIENT GREECE

The results of this research were published in a scientific journal of national importance called The Academic Word. ***Šiljak, V., Parčina, I. (2013). The Games in Ancient Greece The Academic Word (srb Akademska reč) ISSN 2334-9700, vol. 1, No. 1, p. 5-20.***

THE GAMES IN ANCIENT GREECE

Introduction

The development of the first polis in ancient Greece caused the development of sports. Numerous local competitions were held as part of the religious feasts. Sporting competition became a major competition driver among the residents of the polis. It was natural that a polis had gymnasiums which constantly served the people of all ages, not just for the physical but also for the spiritual exercises. That is where the compulsory education for all young people took place as well. The boys were trained for war and for competition in the local and Panhellenic Games. In addition, they learned to read and write, acquired basic knowledge in mathematics, music, singing and reading the best literary works, primarily Homer's epics. Physical education was considered an important part of education, and it was thought that with spiritual it educated all of man.

The education system, in particular physical education, was highly developed in ancient Greece. In Sparta, a military state, the education and exercise system of boys was much stricter and harsher than in Athens and other Greek cities. In Sparta, a strict selection of children was performed as early as at birth. At the age of 7, children went to special institutions for specific training. The Spartans gained skills in special military exercises by running, jumping, throwing, wrestling and pugilism. The girls were physically very active, and together with the young men participated in the Spartan "Gymnopaedia". In Athens, democracy was widespread, and education was also diverse. While at the age of 7 boys went to school, they remained in their families as opposed to the Spartan boys. There were three types of schools: Grammar, Music and Gymnastics school. In the older age in secondary schools, in addition to physical exercise children could acquire knowledge and skills in art, philosophy and rhetoric. From age 18 to 20, they had military training at the military camps. The Athenian education system

aimed to create a strong, courageous and capable soldier to defend his country. This system of training and competition conducted in a special "sports" facilities under the supervision of the then teacher and coaches leads us to the conclusion that they knew and implemented all the elements contained in modern sports. Sports facilities in which they carried out training and competitions were grammar schools, palestra, stadiums, racetracks, and swimming pools. The ancient Greeks exercised and competed by strictly defined rules for all sports disciplines. In competitions the referees with assistants supervised the regularity of the competition. The Greeks competed in a number of sports and athletic activities. In terms of track and field events those included: a single stadium track length race, a double stadium track length race, multiple stadium track length race, hoplitodromos, running with torches, long jump, javelin and discus throw. In terms of martial arts they competed in wrestling, pugilism, and Pankration. In addition to these sports disciplines they lifting weights, played various ball games, and practiced archery, dancing, hunting and swimming. They were familiar with using exercises for medical or therapeutic purposes - prevention, treatment and rehabilitation.

The Games

The Games - track and field and equestrian competitions in Greece most likely originate from the funeral ceremony to honor the dead heroes, prominent individuals whose tombs and surrounding areas were under their protection. The custom is older than the Panhellenic gods cult of Olympus and probably can be traced to the Minoan Crete. The description of competing at Patroklos's funeral under Troy is the oldest such description in Europe. Homer, however, mentions the competition as a form of entertainment. The Olympian pantheon at that time takes over the local track and field and equestrian competitions, while retaining the original heroes in a secondary role.

Although each polis in Greece had its own ceremonies and Games, the best known are the Panhellenic Games (Olympic, Pythian, Nemean and Isthmian Games), which established a strong tradition in the period from the

8th to the 6th century BC. In addition, almost equal in importance were the Panathenaic Games. Over time the number of Games increased.

Depending on whether they included just the track and field and equestrian competitions, or musical competitions were there as well, the Games were called Isolympic Games (as per the rules of the Olympic Games), Isopythian Games or Isonemean Games. When the prize for the winners was monetary, the Games were called the Chromatic Games. Among the most famous Chromatic Games were the Panathenaic Games in Athens. If the prize was a wreath the Games were called the Stephanitic Games, and this included all the four large Games. The mythical contests include the Games prepared at the funeral of Amarinceus, Oedipus, Pelias, Patroclus, Achilles and so on. Pausanias believed that the oldest regular Games in Greece were the Lycian. Although with no written data, the older Games are the “Bull Games" in Crete (Fig.1), harness racing, running, pugilism and wrestling at the time of Mycenaean Greece.

Figure 1 - *Bull games in Crete*

On the island of the Ionian Greeks held their Games in Smyrna, the All-Asian Games at Salamis - Aiantis in Aiantis` honor in Thessaly Fthias - the Games dedicated to Achilles, and in honor of the first killed Greek in Troy - Protesilaus’s Games. In honor the dead in the battle of Plataea they held Eleuteria, and in honor of King Leonidas there were the Games in Sparta. Apollo were dedicated Carnea games in Sparta, the Apollo Games in Rome, the Theoxenia games in Peleni, to Helios the Helion on Rhodes, to

Hera the Heraean Games in Olympia and Argos, to Athens the Athenian Games in Tegea, to Hermes - Hermean in Phenea. On Helicon there were the Games dedicated to the muses and Erota, and in Sparta and Mantinea the Games dedicated to Eurycleia. Thebes and Troy were known for the Equestrian Games. It is known that the Games were held in Amyclae near Sparta - the Hyacinthia, the Games on the island of Kos, the isolympic games in Amphipolis, Dion, Amfilochia, and many others.

In Roman times, the public events contributed to great popularization of physical exercise, which were originally held as part of the religious ceremonies, and later on during the triumphant celebrations after the war victories. The Emperor declared some of the games the iselastic games, which granted the winners a triumphant entrance into the city. The Troyan Games and later the Roman Games (Ludi Magni, Ludi Romani - Fig. 2) were popular for a long time. In addition to these Games, there were attempts to bring the Greek Olympic Games to Rome (Cornelius Sulla, 80 BCE and Julius Caesar, 46 BCE). These Games did not arouse great interest of the Roman audience, and the attempt to move them to Rome failed. As a parallel to the Greek Panhellenic Games, the Roman emperors organized Games with similar sports content also in four-year or five-year cycles. In 31 BC, Octavian Augustus organized the so-called Actia Games that were held in Nicopolis[1]. In 50 BC, Nero in Rome introduced the Games called the Neronia, while Domitian in 86 AD introduced the Capitoline games, which did not contain any athletic competitions.

[1]Nicopolis is a city in ancient Greece, which at the time was conquered by the Romans. According to O. Pologianis, these Games were held in Nicopolis, while our authors believe they were held in Rome.

Figure 2 - *The Ludi Romani*

A lot of new Games were introduced in honor of the emperors which were showed divine honors. The Games in Kaisarea and many other cities were dedicated to Augustus, while those in Ephesus and Athens were dedicated to Hadrian. With them survived the older, Isolympic Games in Alexandria, the Asclepius Games in Epidaurus, the Sebaste in Neapolis, Balbilean in Ephesus and Chrysantic Games in Sardis.

The Festive Games in Olympia

The Festive Games at Olympia were held every four years during the summer, during extreme heat and always in time of the full moon right after the summer solstice, which was by the then reckoning sometimes in July and sometimes in August. The four-year period between the Festive Games was called the *Olympiad* and served for calculating and marking historical events. During the first 13 Games, while the only competitive event at the Festive Aames at Olympia was a single stadium track length race (Fig. 3), each Olympiad was named after the winner of the single stadium track length race. Later on historical events were counted only by the number of the Games.

Fig. 3 - *Running at the Festive Games at Olympia*

From 776 BC up to 684 BC the Games lasted for one day. In addition to the running and Pentathlon events, the added competitions included carts and started to last for two days. When in 632 BC, the competitions for boys were introduced the Games are extended to three days. Due to the many introduced competitions, as of 472 BC onwards the Games were extended to five days.

In the 5th century BC, Hippias of Elis made the first list of winners in Olympia and recorded all the Games held up to that time, and later on the number of authors (among them Aristotle) supplemented his list, recording other data on the held Games.

The residents of Elis showed that they were quite capable of organizing the Games. Top officials of the Games were the Helanodics, or the referees at the Games, whose service was not easy at all. They wore purple clothes and were chosen by draw among the prominent residents of Elis for each Olympics. In the beginning only one referee was selected, after the 20th two Olympics there were two, and as of the 25th Olympics there were nine, our of whom three monitored horse racing, three monitored fights, and the last three monitored other competition events. At the 103th Olympics, the residents of Elis were divided into 12 tribes, and one referee was chosen from each tribe. At the 104th Olympics, there were only eight referees because the Akkadians decrease the size of their land; however, at the 108th Olympics 10 referes were introduced and remained until the end of

the Games. The Helanodics (Fig. 4 were responsible for organizing the Games and the application of the rules. Under their jurisdiction was the disqualification of individuals from the Games because of rule violations and punishment of those who were involved in a punishable offense by public flogging.

Figure 4 - *The Helanodics*

On Altis[2]each shrine had a special staff in charge of sacrifice, which were guided by three priests. Three *spondophor*, to which the Helanodics assigned the duty had to travel to all the Greek cities and announce the exact time of the Games. There were also psychics, descendants of two great Elisian families, Jamida and Klitaida. These psychics had a special reputation. There were also priests who directed the sacrifice, the aulos[3] players, dancers, organizers of festivities, and so on. Finally, the Helanodics were helped by *alitai* (a kind of steward), mastigophora (forced with a whip, beat) and *rabduchi* (those who beat with sticks, and punished with a whip) who were subordinate to the alitarch[4].

Ten months before the start of the Games, the Helanodics stayed in a separate building in Elis, and were trained for their duties. The athletes had to register their participation in the competitions with them a year earlier.

[2]Altis (the sacred grove) in Olympia represented a central site place where temples and altars dedicated to the gods were located.
[3]A musical instrument.
[4]The executor of the Helanodics' decisions.

With the announcement (start) of the Holy truce, athletes, official guests and the faithful came to Olympia. Those who participated in the Games had to come a month earlier with their coaches to prepare and to perform all the necessary verification (Fig. 5). During the last month of intensive practice, the athletes were taught the principles of fair competition. All free Greeks were able to participate in the competitions, those who never violated any laws, who showed their competitive ability before the organizers showed, and swore to fight honorably. Foreigners and slaves, men only, could watch the competiton.

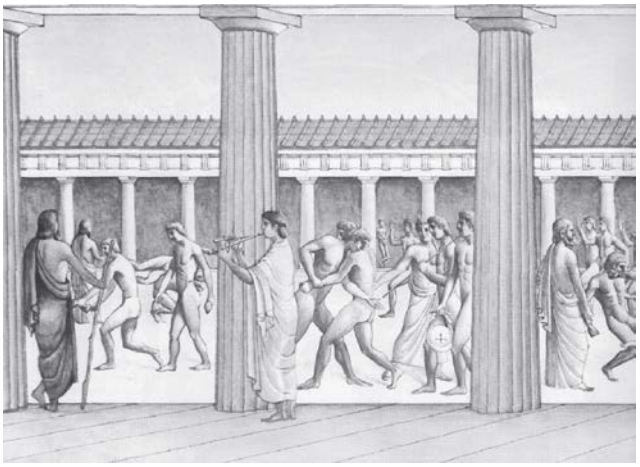


Figure 5 - *Reconstruction of the ancient gymnasium*

The only woman who was allowed to attend the Festive Games was a priestess of Demeter, Samina. Any breach of this rule was punishable by death, by throwing the offenders off the Taygetus[5]**.** Pausanias, however, said that there were no reports of punishment, i.e., throwing a woman down this high mountain range. Every rule has its exception as confirmed by *Kallipateira*, who attended the event for her son Pisidoros in wrestling, as a coach, at the Festive Games in 396 BC. After the death of her husband she was forced to keep training her son alone, who won at these Games. She entered the stadium in disguise. But, when her son won, like any mother she ran towards him, blowing her cover. Given that her family was associated

[5]Pausanias (1994), V, 6, p. 376.

with the former well-known Olympic winners[6] on multiple levels, she was forgiven, but from then on the athletes and coaches had to enter the stadium naked.

The Festive Games Program in Olympia

Starting with the 77th Games, the program and administration were extended to five days, and the program looked as follows:

Day 1 was marked by the opening ceremony of the Games with a large morning program at the bouleuterion. This day was dedicated to the sacrifice and taking the oath. Here, the athletes were registered in front of the statue of Zeus Horkios. After sacrificing a wild boar, the athletes, their coaches, fathers and brothers[7] all took the oath. The athletes swore that they practiced for the prescribed time in the gymnasium. They also swore that they would compete fairly, respecting the rules. At the end the Helanodics swore that they would be fair referees. Then the Helanodics and athletes went to the stadium where they were greeted at the crypt by the priestess of Demeter.

Day 2 was the kick-off day for the Games. The Program included horse and chariot races at the hippodrome, and the Pentathlon competition was held in the afternoon (Fig. 6). The day ended with a ritual in honor of Pelops.

Day 3 was the most important day of the Games. It coincided with the day after the full-moon night and included magnificent rituals dedicated to the god Zeus. In the morning the residents of Elis offered 100 oxen for sacrifice at the altar of great Zeus. This act was attended by the entire Olympia. Previously, a huge ceremonial procession which consisted of priests, athletes, helanodics, Elis officials and official representatives of other cities, along with the observers from Prytaneion passed down the Procession Steet to St. Altis and the great altar of Zeus. On the same day in the afternoon there were competitions held at the stadium - a single stadium

[6]She was the daughter of Diagoras of Rhodes, a multiple Olympic winner. Her brothers and husband were also winners.
[7]For boys the oath was taken by their fathers, older brothers and coaches.

track length race, diaulos and dolichos[8]. The competitors ran naked and barefoot. Unlike today's hard racing tracks, the Olympic track was filled with about a quarter of a meter with a thick layer of sand.

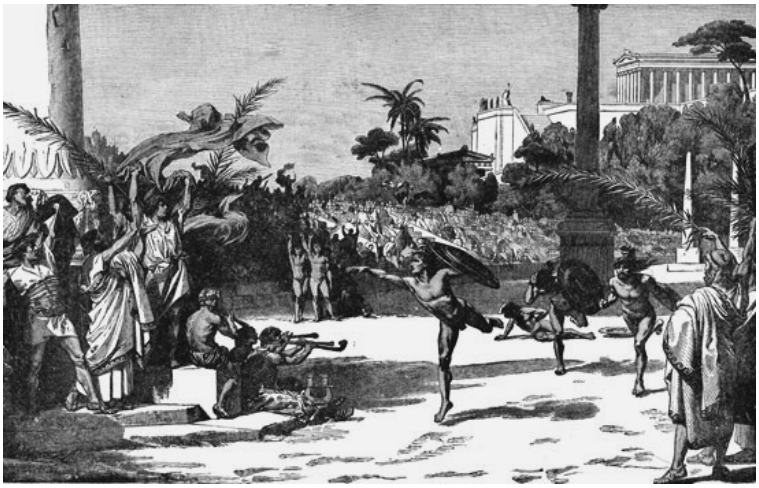


Figure 6 - *The Festive Games in Olympia, the* Pentathlon *competition*

On **Day 4** the competitions at the more difficult events took place, such as wrestling, boxing and pankration, as well as a race with weapons.

On **Day 5** of the Games, the award ceremony for the winners took place in the lobby of the temple of Zeus. The winning wreaths were placed n the precious gold and ivory table, kept in the Temple of Hera. They were woven from the twigs cut from the Holy olive tree planted by Heracles in Altis. A boy from Elis, whose mother and father had lived, cut them off with a golden knife. A poet would call each winner's name, announced the name of his father and the city, and one of the referees would crown him with the olive wreath, which was followed by applause from the audience which threw flowers and leaves. After the award ceremony, a celebration in honor of the winner was prepared at the Prytaneion, which was also attended by the city officials as guests of the Sanctuary. During the night, hymns and poems

[8]A single stadium track length race entailed running a length of 600 feet (in Olympia it amounted to 192.27 m); a diaulos was a race in the length of two stadiums, and the dolichos was a race on 24 stadiums.

of friends and relatives of the winners echoed through the peaceful valley of Olympia, and the winning celebration lasted until the next morning.

A winner ah the Festive Games at Olympia

The win at the Games in Olympia represented a special honor, not only for the winner and his family, but also for the whole city which he represented. The magnitude of this win was reflected in the fact that the winners were not granted any material reward, but only the wreath off the sacred olive tree (Fig. 7). The victory brought the winner eternal glory, which the ancient Greeks appreciate more than transient material gain. The winner's return to the homeland was tied to a very nice welcome. When he returned home, in the cities through which he passed he was showered with flowers, wreaths and gifts. As he walked into his city with hilarious cheering of the citizens, the city walls were demolished before him because with such a hero the city did not require them anymore. The choir sang a song to the winner, and the procession moved along the main street towards the main temple. That is where the winner laid a wreath as the most precious gift to God. Then they would organize a banquet, during which the choir of musically educated singers, mostly citizens or the winner’s friends, sang the winning song again, epinikion, accompanied by guitar or flute.

Figure 7 - *The winning ceremony*

It was a great honor if the winning song was sang by Pindar, whose poetry was unsurpassed. The poets celebrated the winners with such epinikion. In addition, the cities erected statues of its winners at the

gymnasium and palestra, at the square and at the entrance to the temple; they were often awarded the *proedria*, i.e., the right to a seat in the front benches in the theater or at any other ceremony, and promachia, i.e. the right to fight in the front lines.

The winner had the right to erect a monument in honor of his win in Altis, and if he won three times, he was able to erect his own statue. The extent to which the ancient Greeks honored the winners can be seen from the fact that Diagoras' youngest son Dorieus (won in Olympia 3 times, in Isthmia 7 times, and in Nemea 6 times) was released by the Athenians as a prisoner of war without inflicting injury because they found a divine sign in his winnings.

Women at the Olympic Games - The Heraean Games

Women competed in the running events in Olympia at the so called *Heraean Games*, which were organized in honor of the goddess Hera[9]. They were not held at the same time as the men's, but rather a month earlier or a month later compared to their Games. The kick-off of the *Heraean Games* is associated with one of the myths about the origin of the Olympic Games, where Pelops married Hippodamia. It was on the occasion of her wedding in honor of the goddess Hera she formed a group of 16 women who helped her organize the *Heraean Games*.

The young girls from Elis took part in the *Heraean Games*. Pausanias, a travel writer from the 2nd century AD, states that they were divided into three categories[10]. The youngest competed first. The winner was usually proposed to by one of the winners of the men's Games. The names of the winners at the *Heraean Games* have not been saved.

[9] Christopoulos, G.; Bastias, J. (1976), p.82; Gardiner, E. N. (1910), p.38-40.; Reese, A.C.; Richerson, I. V. (2000) p. 72.
[10]Pausanias (1994), V, 6, p. 398.

Figure 8 - *The Heraean Games*

The girls competed in the running event at the same stadium as men or on a 500-feet track (for 1/6 shorter than men's), which was 160 m. Their hair was down during the race, they were dressed in short dresses, the so-called *chitons* with one bare shoulder and breast (fig. 8). They were given the same award as men (a wreath of olive branches and a piece of meat from the sacrificed cow), and a right to have their names carved into the statues that were placed in the temple of Hera.

As horse owners at the men's games, women were considered the winners because initially the winners of the games were the owners, not the riders.

Pausanias mentions that only the married women were not allowed entrance, while the girls had no need to be there because they had their own competition *the Heraean Games*

The Pythian Games

The Pythian (Delphic) Games were dedicated to the god Apollo[11]. They were held in the Greek sanctuary of Delphi, at the foot of Mount Parnassus. After the Olympic Games, these Games were the most famous and most famous in ancient Greece. At the sanctuary at Delphi in the central part there was a large temple of Apollo, while in the northwestern part there was a large amphitheater with a stage for musical competitions, as well as many small temples, altars, statues and accompanying buildings. Outside the sanctuary there were facilities for track and field and equestrian competitions (stadium, hippodrome, etc.).

The exact date of their commencement is unknown. They were restored in 582[12] BC and were since held every four years (in the third year of the Greek Olympics). They lasted until the year 300. The music[13] and sports competitions were on the program of the Games. In addition to track and field and equestrian competitions, people competed in singing to the accompaniment of musical instruments and in playing various musical instruments.

It is interesting to note that the women also participated in the competitions which were held at Delphi. During the archaeological excavations there was a basis on which it was assumed that there were three statues dedicated to the three sisters Tryphosa, Hedea, and Dionysia, where it was carved that they were winners of various games, of which only Tryphosa won in the running event[14] at the Pythian Games. The other two were

[11]According to legend, the god Apollo established these Games after his victory over Python (the earth-dragon).
[12]Various authors have given different information about the year of restoration of the Pythian Games. The presumption is that the year that is stated is the year in which the Games were restored, keeping in mind they were held in the third year of an Olympiad.
[13]In Greek mythology, Apollo was known as the best lira player.
[14] Reese, A.C.; Richerson, I.V. (2000), p.120.

winners in Isthmia, Nemea, Sicyon and Epidaurus. The winner of the Pythian Games received a laurel wreath[15].

The Isthmian Games

The Isthmian Games were dedicated to the sea god Poseidon, and were held in Isthmia on the Corinthian isthmus. According to tradition, ancient hero Theseus is considered to have been the founder of the Games. For some time, Isthmia was a major maritime commercial center. Initially the Games were local in character, however, after their restoration in the period between 582 to 570 BC, they got a Panhellenic character, that is, they were included in the Panhellenic ames, and lasted up to the year 394. The Games were held every other year. The track and field, equestrian and music competitions were on the program of the Games.

Competitions in rowing were held as part of these celebrations, and the prize for winners were pine wreaths and palm branch wreaths. Women also competed in Isthmia. The winners of these Games were the previously mentioned three sisters, Tryphosa, Hedea and Dionysia. Although they won various competitions, their father erected a statue at Delphi[16] in their honor.

The Nemean Games

The Nemean Games were held in the state of Argolida, on the north-east of the Peloponnese, in Nemea, in honor of the god Zeus. According to legend, the Nemean Games were founded by Heracles in honor of one of his many feats, that it, the victory over a Nemean lion (Fig. 9). They were held from 573 BC up to the 394 year, in June and July, every third year of the Olympic cycle.

[15]Some authors believe that the prize was an olive wreath or a wreath woven from the apple tree branches.

[16]After Olympia, the Pythian Games in Delphi were the second most important of all Panhellenic Games.

Figure 9 - *The victory of Hercules over the Nemean lion*

The ceremony program consisted of track and field and equestrian competitions like those at the Olympics, and the winners were awarded the celery wreaths. In Nemea just like in Olympia women could win as horse owners.

The Panathenaic Games

The Panathenaic Games were dedicated to the goddess Athena. Although they did not belong to the Panhellenic Games, they were very significant. They were held in Athens in September. Small Games which were of local character were held each year, while the Large Games, which were all-Greek in character were held every four years, and lasted for nine days.

Horse races were the first on the program of the Games, folowed by varied track and field and music competitions and a recital of Homer's epics.

The famous torch races in the form of a relay (lampadedromia) were held in the context of religious ceremonies. All age groups[17] took part in the running events, including both genders, while, for example, in Varronian in Attica only the girls raced[18].

The prize that the winners received was an olive wreath and an amphorae filled with olive oil.

[17]Today, this would correspond to the categories of youths, juniors and seniors.
[18] Šiljak, V. (2000), Female competitions in Ancient Greece, p.2.

Conclusion

The contribution of the Festive Games in ancient Greece in the cultural and political sense was immeasurable. A very strong sense of national awareness was developed on them. Holy peace was a unique opportunity for a fair rivalry and healthy competition that affected the Greek culture in the best way. A large number of important people attended the Games: rhetoricians, sophists, philosophers, poets, politicians and historians. Pindar, Simonides and Bacchylides were undoubtedly inspired by these Games as poets. The sculptors too immortalized the ideal of athletic beauty, strength and spirit through their work.

Bibliography

1. Arlott, J. (1975). *The Oxford Companion to Sports & Games*. London : Oxford University Press
2. Berković, L. (1985). *Istorija fizičke kulture*. Novi Sad.
3. Gardiner, E. N. (1910). *Greek Athletic Sports and Festivals*. London: Macmillan
4. Gavela, B. (1978). *Istorija umetnosti antičke Grčke*, drugo izdanje. Beograd: Naučna knjiga
5. Γιαννακη, Β.Θ. (1979): *Αρχαιογνωσια - φιλοσοφια αγονιστικης*. Αθηνα : Παιανια Αττικης
6. Djurant, V. (1996). *Život Grčke*. Beograd: Narodna knjiga Alfa.
7. Đurić, M. (1940). *Helenske igre i njihov značaj za telesno i duhovno vaspitanje*. Beograd.
8. Zissimou, T. (2000). *The Olympic Games in Antiquity*. Glyfada: Tinna Zissimou
9. Ilić, S. (1994). *Istorija fizičke kulture* – Staro doba i srednji vek. Beograd: Fakultet fizičke kulture
10. Kito, H.D.F. (1963). *Grci*. Novi Sad: Matica srpska
11. Ksenofont (1988). *Helenska istorija* Novi Sad: Matica srpska
12. Maranti, A. (1999). *Olympia & Olympic Games*, Athens: Toubi's
13. Miller, S. G. (1993). *The Ancient Stadium of Nemea*. Athens: T. J. Long Foundation - Adam

14. Μουρατιδη, Ι. (1992). *Ιστορια φυσικης αγωγης*. Θεσσαλονικη: Εκδοσεις Κ. Χριστοδουλιδη
15. Parčina, I., Plakona, E., Šiljak , V. (2012). *Učešće žena u sportu kroz istoriju Olipijskih igara.* Beograd: Naučni časopis „Menadžment u sportu“, Vol. 3., br.3, str. 119-132
16. Pausanias (1994). *Opis Helade*. Novi Sad: Matica srpska
17. Reese, A. C., Rickerson, I. V. (2000). *Ancient Greek Women Athletes.* Athens: Ideotheatron
18. Swaddling, J. (1999). *The Ancient Olympic Games* (second edition). London: British Museum Press
19. Ćirić, A. (1996). *The Games in Olympia.* Beograd: Vreme knjige
20. Herodot (1988). *Istorija*. Novi Sad: Matica srpska
21. Homer (1977). *Ilijada* (prevod M. N. Đurić). Subotica: Matica srpska
22. Homer (1977). *Odiseja* (prevod M. N. Đurić). Subotica: Matica srpska
23. Christopoulos, G. A., Bastias, J. C. (1982). *The Olympic Games in Ancient Greece*. Athens: Ekdotike Athenon S.A.
24. Šiljak, V. (2001). *Takmičenje žena u antičkoj Grčkoj*. Beograd: The Faculty of Sport and Physical Education yearbook, University of Belgrade, pg. 154-160.
25. Šiljak, V. (2002). *Istraživanje načina izvođenja atletskih disciplina na Svečanim igrama u Olimpiji*. The Faculty of Sport and Physical Education, University of Belgrade. PhD thesis
26. Šiljak, V., Fragkiadakis, G. (2010). *Menadžment antičkih olimpijskih igara*. Beograd: Naučni časopis „Menadžment u sportu“, Vol.1, No.1, str.148-158.

SYNCRETISM OF AGON, ATHLETICISM AND WAR IN ANCIENT GREECE

The results of this research were published in the scientific journal of national importance „Physical Education and Sport Through the Centuries“. ***Šiljak, V.; Selaković, V. (2014). Syncretism of Agon, Athleticism and War in Ancient Greece, Physical Education and Sport Through the Centuries, Niš: ISSN 2335-0598, Vol. 1 (2), pp. 90-99.***

SYNCRETISM OF AGON, ATHLETICISM AND WAR IN ANCIENT GREECE

Introduction

The ancient Greek term *agon* denotes abstract concept of honourable rivalry expressed through strong desire/drive to compete in the area of physical or intellectual enterprises. Being such, *agon* was one of the principal motivating forces of the all Greek society in which centre was the desire and need to gain glory *(kleos*) as well as honour derived from that glory, through public demonstration of one's virtue and excellence (*arête*) in any form. Virtue and excellence demonstrated, especially in the field of sport, in minds of the ancient Greeks justified and signified the right to gain political and social authority. According to Aristotle, *arête* belonging to an individual or shared within a group, was one of the virtues believed to entitle an individual to aspire and gain the position of authority and keep it[1], or city-states (*poleis*) to establish domination over their enemies or hegemony[2] , or the rest of Greeks the opportunity to be recognized by society and achieve the ideal lifestyle[3]. *Agon* whether in the form of war campaign[4] or athletic competition[5] - the meaning of the word was associated with these – was one of the most suitable means to measure and evaluate excellence.

[1] Ross, W. D. *The Works of Aristotle* (Chicago: Encyclopedia Britannica, 1952), p. 2960.
[2] Godley, A. D. *Herodotus* (London: W. Heinemann;, 1921), p. 63.
[3] Ross, W. D. "Nicomachean Ethics." In *The Works of Aristotle*, (Chicago: Encyclopedia Britannica, 1952), p. 2761-2787.
[4] Godley, A. D. *Herodotus* (London: W. Heinemann;, 1921), p. 231.
[5] Godley, A. D. *Herodotus* (London: W. Heinemann;, 1921), p. 281.

Subject, aim and methods of this paper

The subject of this paper is related to syncretism of agon, athleticism and warfare in the ancient Greece. The purpose of the paper is to point out the agonal character of the ancient Greeks that influenced their achievements in athletic events and in war. The historical method and the method of theoretical analysis were used in this paper.

Results and discussion

Agon as a war motive in the ancient Greece

Desire to obtain material wealth as one of necessary means to express one's arête was often stated as major cause of Greek wars. Sometimes war started because of uncontrollable and persistent greed of the Greek aristocracy to widen territories, to plunder, to obtain ransom money or enslave prisoners of war, raise taxes from occupied and subjected territories etc.

However, according to Herodotus, the territories that the Greeks used to fight for were "small pieces of not particularly good soil"[6] and the ransom money for the captured war prisoners (whose number was insignificant) hardly made any profit, just a little bit higher than a slave's wages.[7] Armors and weapons, though desired and precious rewards, in wars in which casualties were under 5%[8] , were insufficient incentives while loot and plunder of rural areas was usually prevented due to the fact that the territories in question had previously been evacuated. Even the outcome of war that would bring somehow higher income i.e. the occupation of a town[9] was particularly rare therefore unlikely to be significant motivating factor. Furthermore, there are numerous instances of obvious indifference towards the possessed

[6] Godley, A. D. *Herodotus* (London: W. Heinemann;, 1921), p. 51.
[7] Godley, A. D. *Herodotus* (London: W. Heinemann;, 1921), p. 229.
[8] Krentz, Peter. "Casualties in Hoplite Battles" (*Greek, Roman* and *Byzantine Studies, 26:1,* 1985), p. 20.
[9] *Homer Iliad: Translation of Tomo Maretić* (3. edition, published Zagreb: Matica Hrvatska, 1912), p. 307, 366-367.

territory [10] or the act of its occupation[11]. These examples imply that material gain and strategic value of a territory were far less significant than demonstration of superiority over enemy through direct military force competition making it the motive to start a conflict.

Actually, from the point of the ambitious Greek aristocracy, especially the one pretending to establish hegemony (e.g. Sparta) nothing abstract or illogical could be found in such behavior. The important aim that had to be achieved was the victory and public acclamation over an adversary. Aristotle noted that "people commit the greatest acts of injustice in order to show their superiority, not because such acts are necessary" making the root of all conflicts the greed for more "being it property, honour, glory or all of that"[12]. A prosperous society had become ambitious over the time, and that ambition created aggressive despise towards others. The Greeks had the name for that – *hybris*. "Satiety creates *hybris*"[13] claimed the ancient authors. Greek wars were not fought in order to survive but because of escalation of rivalry, when each new success brought on the desire for next and larger enterprise. Greek war was *agon* in its most destructive form (Figure 1).

Fig.1 One of the earliest pictures of massive warfare which was not related to the Greek mythology. A protocorinthian aryballos (an oil pot) around 640 B.C. © Cecil Smith, JHS vol.11, 1890

[10] Godley, A. D. *Herodotus* (London: W. Heinemann;, 1921), p. 103; Jowett, Benjamin. *Thucydides* (2nd ed. Oxford: Clarendon Press, 1900), p. 112.

[11] Godley, A. D. *Herodotus* (London: W. Heinemann;, 1921), p. 229-231.

[12] Ross, W. D. *The Works of Aristotle* (Chicago: Encyclopedia Britannica, 1952), p. 2832-2833

[13] Podlecki, Anthony J. *The Early Greek Poets and Their times* (Vancouver: University of British Columbia Press, 1984), p. 132.

Power and material resources were inevitable stakes in endless fighting for hegemony, local, regional or global. The Greeks themselves clearly thought of these conflicts as fights in order to achieve "honour and glory", as *agon*, enjoyed flattering themselves while thinking of the barbarians from the East that were confound wondering "What kind of people they are when they not fight for money but for the victorious glory"[14].

During the conflict itself what was expected was rivalry and competition, towards the enemy with the view of obvious contest between opposed sides, but also among the allies in order to rank them[15]. Such approach applied to whole armies and to individuals alike[16]. There was even up to a point official selection for the best and most prominent warriors in a battle. Even the upbringing of future warriors was conducted since very early age by athletic exercise and competition[17]. Situation did not change, thus in Sparta, for example, apart the usual vertical promotion in military career, only the best of warriors were chosen to become members of *hippies*, the Spartan honourary guard of 300 men; the honour to fight in a war next to the king while protecting him was reserved for those who achieved glory after winning some athletic competitions[18].

The connection between war and athleticism in the ancient Greece

It may seem over-ambitious to conclude that war had shaped the Greek society, but it is evident that it had tremendous influence on athletic competitions and sport culture. Athleticism and war were inseparable in Greece. Both put on test physical and mental abilities, personality and morality, within both areas strong antagonism and stirred up emotions could be observed.

---

[14] Godley, A. D. *Herodotus* (London: W. Heinemann;, 1921), p. 25-27

[15] Godley, A. D. *Herodotus* (London: W. Heinemann;, 1921), p. 409, 279

[16] Godley, A. D. *Herodotus* (London: W. Heinemann;, 1921), p. 231,247,543-545

[17] Papapostolou, Metaxia, Pantelis Konstantinakos, Costas Mountakis, and Kostas Georgiadis. "Rites Of Passage And Their Role In The Socialization Of The Spartan Youth." (*Choregia*: 43-52, 2010), p. 48

[18] Godley, A. D. *Herodotus* (London: W. Heinemann;, 1921), p. 127

On one side athletic activities complemented war ones, not only because of their obvious contribution to physical training of warrior, extremely important for poor technological aspect of fight, but also because they stimulated and enhanced belligerent spirit essential in upbringing of young men in Greece, especially in some city-states (*poleis).*

On the other side, athletic contests were created as an alternative to war, a substitution whose role was to direct the same drive and accumulated strength of leisurely relaxed warrior population into less dangerous and less lethal activity. Still, warriors, who customarily were the best athletes, "were not allowed to participate in sport competitions unless had temporarily stopped fighting"[19].

However, war and athleticism can be observed as two parallel manifestations of the same highly aggressively expressed drive for competition and as different expressions of the same drive conditioned by warfare or times of peace respectively. Sport competitions and the upbringing of young athletes were affected and shaped by "war-prone environment, preparation for struggle and warfare which included elements of sport activities" [20] (Fig. 2).

[19]Perrin, Bernadotte. *Plutarch's Lives*. (Vol. 2. London: W. Heinemann ;, 1914), p.92

[20]Šiljak, Violeta, Mijatović, Sladjana& Parčina Ivana, "Politics and the Olzmpic Games", (*Topics (Teme) 37(2),* 2013), p. 889.

Fig. 2 A warrior helmet with a wreathe –an award in the athletic competition. A detail from an archaic black-figured amphora, Atika , 575-550 B.C.

Fig. 3 Development of athletic events followed closely progress in war methods and techniques. Pankration, a warfare skill, became an event at Games in Olympia 648 B.C. A black- figured skyphos (a drinking dish), Atika, around 500 B.C.

Demonstrating his physical predominance at an athletic contest, under condition very similar to those during war[21] (Fig.3), a man would announce his ability to participate in a war, survive, protect his family and finally win in a battle. Even the traditional way of celebrating the victory in an athletic competition was directly derived from the customs of sacrificing animals after a military victory in order to honour and thank gods that in such an important moment had supported victorious warriors[22]. The fact must not be forgotten that the members of traditionally belligerent Doric Greek population (Corinthians, Crotonians, Argives, Messeninans, Cretans and Spartans) had much more victories than any members of any other Greek population at the All Hellenic games.

[21] Stefanović, Đorđe: *Theory and...*

[22] *Homer Iliad: Translated by Tomo Maretić* (3. edition., published in Zagreb: Matica Hrvatska, 1912), p. 383.

Competitions were created out of the need to enable survival and establish supremacy over adversary's forces, out of the wish to establish communication among divided tribes [23] and out of need to become recognized in society. Strain, seen as the main means in competition since it could activate all physical and mental powers in order to achieve the best possible result in the particular event, was defined by the term *áthlos or áthlon* meaning a contest, effort, feat after which the athletes received awards[24] - is found as the root of present day words athlete and athletics. The term in its original meaning, in its singular form áthlon denoted the award itself received for competition[25], being it the award for a sport event or war trophy gained in warfare. *Áthlos* as a sport activity, the meaning nowadays closest to us because of the words derived from it which we often use, in Homer's works represented the favourite form of leisurely recreation for Achilles' Myrmidons and Penelope's shameless suitors[26]. This blurred linguistic border line between different meanings of the term *áthlos* actually reflects the complementary quality of the two worlds of the ancient Greece. Having in mind that the supremacy of the authorities in ruling position as well as their ascension to that position were determined by, among other factors, by their *arête*, any challenge towards that *arête* might have turned into perilous political weapon aimed at home and foreign affairs alike.

At the time of war, as one kind of such a challenge, members of social elite could have confirm their excellence or dominant position through war activities or similar bellicose conflict, acquiring their *kleos* at the same time while accumulating their war trophies which eventually transformed into power. The equivalent to those challenges at the time of peace was agonal athletic contests.

---

23 Burnett, Anne Pippin. *The art of Bacchylides* (Cambridge, Mass: Published for Oberlin College by Harvard University Press, 1985), p. 38.

24 Šiljak, Violeta, *Olympism* (Alfa University– The Faculty of Sport Management, 2013), p.8

25 *Homer Iliad: Translated byTomo Maretić* (3. edition, published. Zagreb: Matica Hrvatska, 1912), p. 128-136

26 *Homer Iliad: Translated byTomo Maretić* (3. edition, published. Zagreb: Matica Hrvatska, 1912), p. 396-400

Thus athletic competitions, just one of the forms of *áthlos*, relatively quickly, became accepted by all, being incomparably cheaper and significantly less dangerous method of establishing and protecting political and social authority, but at the same time being true to highest ideals of manhood in the ancient Greece. This is supported by the example of Cylon, the son – in-law of the Theagenes, the tyrant of Megara, who tried in 630 B.C. to overtake the power in Athens by force, in an attempt to transform his fame, since he was the Olympic champion, into absolute political power over the whole poleis. The political epilogue of this incident is not our primary concern, but Thucydides's claim that the mentioned coup d'etat, specially its timing is determined if not enabled by Cylion's status of an Olympic champion[27].

Conclusion

The results obtained in this research are based on the observation and clarification of the phenomenon of *agon* in the ancient Greeks, which existed as inseparable from warfare and athletic competiotions. Contarary to the common idea of warfare as massive violence whose aim is to aquire certain material gain (money, land, slaves), the Greek wars ignored this common driving force but were motivated by the same drive which was the reason of the All Hellenic athletic contests. The Greek wars as well as the athletic Games were focused escalation of rivalry, the consequence of claims regarding political or military domination or their denial. The worlds of wars and athleticism became complementary at relatively early stage. Even the athletic contest became in a short time, at the time of peace, an alternative way to establish and defend political or social authority, or to reach highest ideals of a community. Thus in order to completely and thoroughly understand and cherrish the ancient sport tradition, it is necessary to recognize and define the motives and ideology behind the sport and warfare in the ancient Greece, as well as their mutual connections in order to avoid sanitizing the history of sport or its selective interpretation motivated by the attempt to adjust it to the contemporary, socially acceptable context.

[27] *Homer Iliad: Translated byTomo Maretić* (3. edition, published. Zagreb: Matica Hrvatska, 1912), p. 38

Bibliography

1. Burnett, Anne Pippin. *The art of Bacchylides*. Cambridge, Mass: Published for Oberlin College by Harvard University Press, 1985.
2. Butler, Samuel. *The Odyssey*. Champaign, Ill.: Project Gutenberg, 1998.
3. Godley, A. D. *Herodotus,*. London: W. Heinemann;, 1921.
4. *Homer Iliad: Translated by Tomo Maretić*. 3. Edition, published, Zagreb: Matica Hrvatska, 1912.
5. Jowett, Benjamin. *Thucydides*. 2nd ed. Oxford: Clarendon Press, 1900.
6. Krentz, Peter. "Casualties in Hoplite Battles", *Greek, Roman* and *Byzantine Studies, 26:1,* 1985.
7. Papakonstantinou, Zinon. *Sport in the Cultures of the Ancient World: New Perspectives*. Abingdon: Routledge, 2010.
8. Papapostolou, Metaxia, Pantelis Konstantinakos, Costas Mountakis, and Kostas Georgiadis. "Rites Of Passage And Their Role In The Socialization Of The Spartan Youth." *Choregia*: 43-52.
9. Perrin, Bernadotte. *Plutarch's Lives*. Vol. 2. London: W. Heinemann ;, 1914.
10. Podlecki, Anthony J. *The Early Greek Poets and Their times*. Vancouver: University of British Columbia Press, 1984.
11. Ross, W. D. "Nicomachean Ethics." U *The Works of Aristotle*, Chicago: Encyclopædia Britannica, 1952.
12. Ross, W. D. *The Works of Aristotle*. Chicago: Encyclopædia Britannica, 1952.
13. Stefanović, Djpordje. *Theory and Practice of sport training*. Belgrade: The Faculty of Sport and Physical Education, 2006.
14. Šiljak, Violeta, Mijatović, Sladjana & Parčina, Ivana. "Politics and the Olympic Games", *Teme, 37(2),* 2013.
15. Šiljak . Violeta, *Olympism* . Alfa University – The Faculty of Sport Management, 2013.

POSSIBLE WAYS OF PERFORMING TURNS IN DIAULOS RACE AT ANCIENT OLYMPIC GAMES

The results of this research were presented at 18th International Congress of the European Committee for Sport History „Sports in Education from antiquity to modern times“ (Edessa, Greece, 16-18 October 2014), and they are published in the CESH Proceedings. ***Šiljak, V. (2014). Possible Ways of Performing Turns in Diaulos Race at Ancient Olympic Games. In: Faniopoulos & Albanidis, Proceedings of the 18th International Congress of the European Committee for Sport History (CESH). Edessa: Greece, ISBN: 978-618-82217-0-3, pp. 50-55.***

POSSIBLE WAYS OF PERFORMING TURNS IN DIAULOS RACE AT ANCIENT OLYMPIC GAMES

Introduction

Athletics has had its development and has always been present, more or less, in all periods of human development and in all social systems. With constant improvement, it has reached today's level of development, from which follow the vision and future direction. Evolution of athletic competitions, and within it the method of performing in athletic events, appears as a segmented significant athletics phenomenon, which had a significant impact on the cultural and economic life of the people. Therefore, there is a need for comprehensive consideration of further development, including the encouragement of research on knowledge and ways of performing in athletic events, and possible ways of performing turns in the diaulos race at the Games in Olympia.

Running/dromos held a very important position in the system of physical education in ancient Greece. Thus, it is known that at the ancient Olympic Games, the first competitive discipline was the stadion race. The athletes ran naked on the track pad, which was made of sand. The tracks were marked with white powder, and were thus separated. After the finish line, there was a space for the runners to stop, and the space was 10.5 m long.

The two-stadion race was introduced into the program at the 14th Games in Olympia (724 BC). It was named after diaulos, a musical instrument with two pipes[1] The name of the race itself speaks of the length, or that two stade lengths were ran, i.e., 384.54 m, which in today’s terms is the 400-m race. The starting line for this race was on the west side of the stadium, which was also its finish line. The athletes ran the first stade of 192.27 m on the west

side of the stadium, where there was also the starting line (valvida) towards the east side of the stadium, where they most likely all turned around their poles- *camptirs*, and used the other stade to run back to the finish line. It follows that every athlete had access to two tracks - one for each direction (Pausanias, 1994, V, 17)[2], which means that a maximum of 10 runners could start this race. The way to start the race was the same as in the stadion race, and the running technique was also similar, as this was a sprinting discipline as well.

The Starting Point

In search of the roots and origins of ways of performing in athletic events at the Games in Olympia, as well as in the study of their development, we considered the need of a more studious and broader approach to this issue. Therefore, the entire research effort was focused on finding the so-far undiscovered and existing sources, their respective criticism, in order to use valid and reliable synthesis to acquire scientific knowledge in relation to the studied phenomenon. It should be noted that the research of competitive activities in athletics, and within it the way of turning in the diaulos race, is much more complex and rarer than research of the training process. Therefore, it is possible to continue this research process because there is almost no end to it, and it is a sui generis.

The fact that the same athletes took part in various games (Isthmia, Nemea, Delphi, and so on), suggests that the method of performing the actual discipline was the same or similar. For this reason the above authors who have written about doing the turn in the diaulos race are mentioned, but in relation to other games in ancient Greece.

V. T. Giannakis[3] wrote about the way of doing the turn in the diaulos race in ancient Greece. According to him, every runner in the diaulos race turned around his pole and returned to the start or finish line.

J. C. Bastias believed that in races that were longer than one stade, the athlete had to turn and go back to the starting line as many times as requested by the length of the race. The turning point *(kamptere)* is naturally located on

the opposite side of the starting line, or on the starting line itself, if the race consisted of a few laps. Images from ancient vases support the assumption that the starting blocks that divided the starting points had the shape of small pillars around which the runners turned. It has not been established with certainty how the turn was done, but Christopoulos and Bastias have set forth four main possibilities:

1. *"Each runner was running in his own track, making the turn as soon as he got to the opposite side.*
2. *Runners turned around the poles to the left or to the right and ran the second stade in the track next to them, but this led to crowded tracks if the runner from that track had not yet reached the turning point.*
3. *All runners turned around the centrally positioned pole, where the outer runners had to run a little longer compared to others (0.51 m in Olympia). However, with this option, the crowded track would certainly be created near the turning pole because everyone would arrive at the same time.*
4. *It is likely that each runner was entitled to two tracks, and consequently it is concluded that only every second position was occupied at the starting point[4]"*

I. Mouratidis assumes that for the diaulos and hoplitodromia races, each runner had his own camptir (turning pole), while in the dolichos race, there was one pole for all[5]. He explained Harris's presumption about the turn in the diaulos race in the following way (Fig. 1). According to this theory, position A is bad because the injured athlete had to run to the right and do the turn to the left, so he had a longer way to go (for 0.51 m). That's why this discipline was canceled at Delphi. There were only positions B and C left.

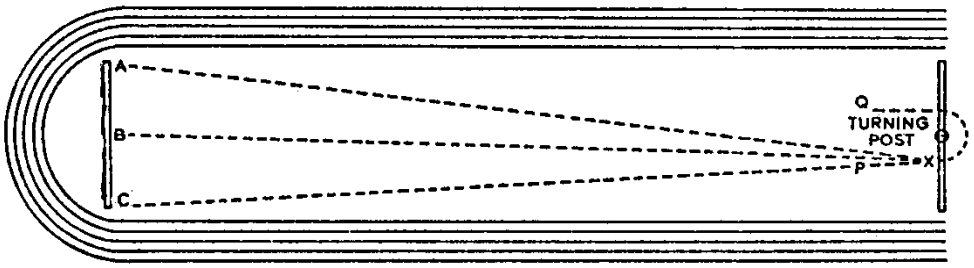


Fig. 1-Start, turn and finished criticized by Mouratidis
(according to Harris)

Based on the research by S. Miller regarding the diaulos race, as stated by I. Mouratidis[6], athletes had each their own track when running in both directions. They ran in their tracks, which were marked with white powder, and each runner used as much space as did two runners in the stadion discipline. As a diaulos was a two-pipe musical instrument (two channels), it is considered that each runner had two tracks, i.e., that the starting and finish lines were different. Corroborating the assumption that diaulos was run in two tracks, I. Mouratidh quotes Aristotle, who said the athletes were used to starting and finishing the race in different tracks[7].

A. Ćirić believes that in diaulos, there are doubts regarding the number of runners and the way in which they qualified.

"It is uncertain, for example, how the runners in all tracks were turning, except at that one stade. Given that there are no traces of a specifically positioned pole, there are four possibilities[8]," that are interpreted by Chrisopoulos and Bastias.

J. Swaddling did not address the turn in the diaulos race, but only the running technique, which she assumed was somewhere between the stadion and the dolichos running technique[9].

T. Zissimou, analyzing the sources which have dealt with these issues and representations of turns in vase paintings believes that

> "*...most likely in this discipline each runner was entitled to two tracks, one for each direction. The word diaulos, which means double flute or double channel, leads to the thought that this is about a pair of tracks (two) for each athlete, particularly in this discipline*[10]*"*.

Subject Matter

The subject of this research relates to the possible ways of performing turns in the diaulos race at the ancient Olympic Games. This area has not been sufficiently researched to this day because there are different analyses, assumptions, descriptions, and visions of the authors. Their interpretations bring suspicion regarding the possible true way of turning. Suspicions when it comes to credibility made room for researching this topic. It was a challenge to carry out the experiment under similar conditions as those in Olympia.

Research Aim and Objective

The aim of this research consisted of determining the most credible ways of performing turns in the diaulos race at the ancient Games on Olympia.

Method

In this scientific research, we used historical and experimental methods. Historical method consisted of several stages where special attention was paid to heuristics, or a comprehensive collection of as many historical resources, which were related to the way the turn in the diaulos race was performed at the Games in Olympia. In the study of resources, appropriate critique was carried out regarding the collected material, in the context of authenticity and originating circumstances, as well as whether these resources were able to provide valid and reliable facts, that is, historical truth. Based on the collected resources related to the study of the defined element, after criticism and using the synthesis process, we have come to certain conclusions, which provided useful suggestions on possible ways of performing the turn in the diaulos race at the Games in Olympia. The

experimental method is reflected in the performance of the four turning ways in the diaulos race. At the same time, we video-taped the way of performing selected turning variants in the diaulos race. Objectivity was achieved by using video cameras, which recorded performance, and based on which we assessed the way a turn was done using observation as our research technique.

The sample (N = 21) used in conducting the study consisted of medium-trained males, senior category, students of the Faculty of Sports and Physical Education in Belgrade, and ECPD students from the International Faculty of Sports from Banja Luka. The experiment was conducted on a sandy flat surface in Umka near Belgrade. All respondents were trained in the techniques of performing motion tasks prior to doing them. When performing tasks, the respondents were barefoot and dressed only in sports shorts.

The task for the participants was to stand at the starting line (the line in the sand) in an upright starting position, and on the starter's mark (a loudly spoken word "Go"!) to run as quickly as possible on the marked 1.25 m wide track in the sand. After the first stade (part) of the run, they turned around the wooden poles in four ways. The sample of variables consisted of the following methods of performing turns in the diaulos race:

- Respondents ran along the track, and when they reached the opposite side, they did the turn to the left and ran the other part of the race on the same track to the finish line (Fig. 2).
- Respondents ran along one track, and when they reached the opposite side, they did the turn to the left and ran the other part of the race on the track next them to the finish line (Fig. 3).

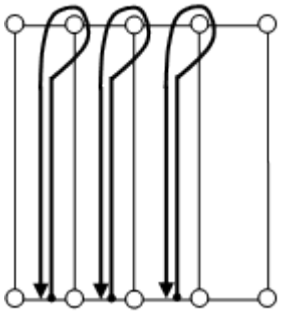


Fig. 2

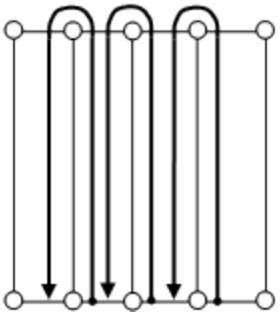


Fig. 3

- Respondents were entitled to use two tracks, one for the first part of the race before they reached the pole, and the other, adjacent track (left track) to return to the finish line (Figure 4).
- The fourth way of performing the turn differed from the previous ones in that all respondents performed the turn around one pole to the left and ran the other part of the race in a group towards the finish line (Figure 5).

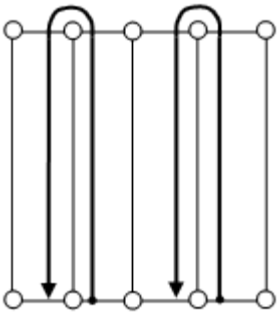


Fig. 4

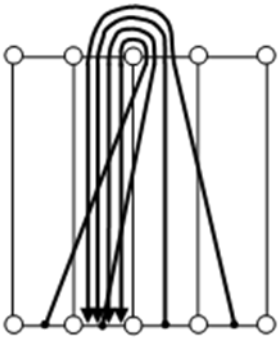


Fig. 5

Results and Discussion

The starting method in the diaulos race is shown in Fig. 6. It can be seen that the two runners on the left side of the figure have their feet placed in a regular position at the start of the race. Three respondents to the right of the figure have the proper position of the front arm. All other elements of the technique are the same as at the start of the previous race. The running

technique on the track in the diaulos race is shown in Fig.7. For the runner in the second position, we can see the energetic arm strokes and a longer step.

Fig.6

Fig. 7

As was stated in the methodology section, there were four possible ways of performing the turn in the diaulos race. Figure 8 shows the first way of turning when the respondents ran along the track, and when they reached the opposite side, turned to the left and ran the other part of the race on the same track to the finish line. The video and Fig. 8 show that at the point of turning, the torso is inclined more to the left. The two middle runners have their arms at chest height, because their bodies descended rapidly, while their arms were left behind. The second runner from the left is late in his turn compared to the third runner from the left. Given the fact that they entered the right track because of their turn to the left so each could return in his own track, there could have been contact between the two, because the third runner from the left was already on his way back to his own track. The third runner was recorded as he turned around the pole, when the center of gravity of his body was located at the lowest point. He was most effective in the turn because his left foot was located very close to the pole. Also, the first runner from the right side properly set his foot for the turn. The first two on the left went around the pole in a wide circle, which was a loss in time and position.

Figure 9 shows the second way to perform the turn when respondents ran along one track, and then turned to the left and ran the other part of the race on the track next to them to the finish line (in which another runner was located). The figure shows the moment when the second runner from the left meets at full speed with a runner from the neighboring track (third runner

from left). If this kind of turn was used at some point at the Games in Olympia, the assumption is that because of the possibility of an incident, it was replaced by another method of turning.

Fig.8

Fig. 9

Figure 10 shows the third way of performing the turn when respondents were entitled to use two tracks - one for the first part of the race before they reached the pole, and the other, adjacent track (left track) to return to the finish line. As each runner had his own running track, during this turn there was no interference between the runners. This is where the running technique while turning was really important because there was no way to gain advantage on the basis of a collision of two other runners.

Figure 11 shows the fourth way of performing the turn when respondents performed the turn around one pole to the left and ran the other part of the race in a group towards the finish line. The figure shows the difficulty in performing turns for runners who were not first. It was the easiest for the first runner to make the turn because nobody interfered with his movement. The others had to slow down so as to not run into the runners in front of them. Due to the more economical technique of performing the turn around the pole, there is a more pronounced lowering of the center of the body with the first runner. The others could not have had that position because they had to slow down before turning because of the runners in front of them. For this reason, the center of gravity of the body was high, as is clearly seen in the last runner before the turn. From the start to the point of turning, runners in external positions were running a bit long run.

Fig.10 **Fig. 11**

The method of performing the turn at the two stadium races was the most clearly defined by G. A. Christopoulos & J. C. Bastias, as well as by I. Mouratidis and A. Ćirić.

Based on the performed experiment and viewpoints of previously mentioned authors, I believe that all listed ways of performing the turn in the two-stadion (*stadium*) race were used but at different times. It is assumed that in the earliest period a turn around one pole was used (Fig. 11). With the introduction of wooden poles at the start, the turn was performed in the manner shown in the experiment in Fig. 9, where the athlete in the first part of the race ran in his track, turning around the pole to the left and going back using the adjacent track also used by another athlete. As the experiment showed that collisions of two athletes were inevitable, the manner of performing turns was probably changed, and they were performed as shown in Fig. 8. The athletes ran in their own tracks in both directions, and the turn was done around the pole on the right side of the track. The experiment showed that this way led to failure as well in terms of creating a collision at the turn, and most likely in was the fourth method that was used in the later period of the Games (Fig. 10). The athletes then used two tracks for the race. The turning technique around the pole probably had to be practiced, as it was a very important factor that could influence the outcome of the race.

Conclusion

Based on the research of possible ways of performing the turn in the diaulos race at the Games in Olympia and the realistically possible method of performing it, we have come to the following conclusion. When performing the turn in the diaulos race, there were two realistically possible ways:

- The way of performing the turn when the respondents performed the turn around one pole to the left and ran the other part of the race in a group towards the finish line.
- The way of performing the turn when respondents were entitled to use two tracks - one for the first part of the race before they reached the pole, and the other, adjacent track (left track) to return to the finish line.

The first way of performing the turn, as the simpler one, was probably used in the earlier period, while the other way was used in the most developed period of the Games.

For the next two ways, which were possible to perform in certain periods of the Games, it can be said that they created difficulties in turns because the runners met up in the same track, but in the opposite direction:

- The way of performing the turn when respondents ran along the track, and when reached the opposite side, turned to the left and ran the other part of the race on the same track to the finish line.
- The way of performing the turn when respondents ran along one track, and then turned to the left and ran the other part of the race on the track next to them to the finish line (in which another runner was located).
- This scientific research paper is a contribution to science in the field of athletics. The topic is complex with intertwined fields of history, art history, archaeology and biomechanics. Given that this research to some extent helps solve the current problem of the types of ways of performing athletic events at the Games in Olympia, it is assumed

that the obtained results will be of particular interest to the Olympic Movement and athletics in general, because in the near future there are plans to perform the competition under the same conditions as in ancient Greece.

The results show that there are differences in the interpretations of the ways of performing turns in the diaulos race and their possible implementation. The scientific justification of this research is reflected in resolving scientific assumptions related to the possible ways of performing turns in the diaulos race at the Games in Olympia. As all the problems related to this topic have not yet been explained, there is still plenty of room for further research.

Endnotes:

[1] Swaddling, Judith: *The Ancient Olympic Games.* London, [2]1999, p.62.
[2] Pausanias: *Description of Greece.* Novi Sad, 1994, V, p.17.
[3] Γιαννακη, Θωμα Β.: *Αρχαιογνωσια – φιλοσοφια αγονιστικης*. Αθηνα, 1979, σελ.90.
[4] Christopoulos, George A. & Bastias, John C.: *The Olympic Games in Ancient Greece*. Athens, 1982, p.164.
[5] Μουρατιδης, Ιωαννης: *Ιστορια φυσικης αγωγης*. Θεσσαλονικη, 1992, σελ.186.
[6] Μουρατιδης: *Ιστορια*, σελ.183.
[7] Μουρατιδης: *Ιστορια*, σελ.184.
[8] Ćirić, Aleksandar: *Games in Olympia*. Belgrade, 1996, p.247.
[9] Swaddling: *The Ancient*, p.61.
[10] Zissimou, Tina: *The Olympic Games in Antiquity*. Glyfada, 2000, p.38-39.

RESEARCH ON TECHNICS OF THROWING DISCUS IN ANCIENT GREECE

The results of this research were published in the international journal Sport Science. ***Šiljak, V.; Plakona, E.; Fragkiadakis, G. & Bajrić, S. (2014). Research on Technics of Throwing discus in Ancient Greece. Sports Science, Travnik: ISSN 1840-3662, Vol. 7, Issue 2, pp. 62-70.***

RESEARCH ON TECHNICS OF THROWING DISCUS IN ANCIENT GREECE

Introduction

Discus throwing existed in the ancient Greece as an independent competition event and as a part of pentathlon. Homer mentions discus throwing in his work Iliad on two occasions:

- When the Myrmidons [1] competed in discus throwing during a entertainment, at the time of Achilles absence from battles at Troy (Homer, 1977, p. 94) and
- At the completion at Patroclus funeral. Achilles offered a discus made of iron as an award to the winner (Homer, 1977, pp. 559-560).

According to one of many legends on the beginning of the Olympic Games, a discus had a significant role. Following the prophecy at Delphi, three kings of ancient Greece: Lycurgus of Sparta, Iphitos of Elis, and Cleoisthenes of Pisa made a mutual agreement and created a long-lasting treaty on Sacred peace during the Games, which was respected by all the Greeks as an inviolable law even at the gravest of conflicts among numerous states. That treaty on Sacred peace was carved on a metal (bronze) discus and kept afterwards at the Temple of Hera in Olympia. Pausanias stated that he had seen it in 160 B.C.: *"… On Ifit's discus, there were the words of Sacred peace which Eleans had proclaimed at the time of the Olympic Games; the text was not written in a straight line, but the words go in circle on the discus."* (Pausanias, V, p. 20)

The well-known Greek lyric poet Pindar[2], who celebrated Greek heroes of different sport competitions in his odes[3], invented the word *diskovolia* (*disk*

[1] Achey tribe in Tessalia's Ftiotidi, where Achillies used to rule, and the capitol was Ftia and Hellas

– discus which is thrown and *voli* - throwing, and the person who threw the discus was called *diskovolos*). At the 7th Olympic Games in the ancient Greece in 708 B.C. the competition included the discipline of throwing discus within pentathlon. According Pausanias, as it has been already mentioned, three metal discuses were used during the Olympic competition. The discuses were of the same diameter and mass; they were kept in the treasury of the Sikyonians. Lucian[4] praised Greek gymnastics in his work *Anaharsid*, in which he describes a discus: *"There is a round metal object you can find in the gymnasium. It looks like a small shield without a handle or strap. You tried it out yourself and you realized how heavy it is; besides it is slippery so it is difficult to hold. That discus is thrown up and into the distance, so competitors have to throw it as far as possible and outdo their rivals. The exercise strengthens the shoulders and makes limbs more flexible."* (Đurić, M. 1998, pp 93-94; Enciklopedija fizičke kulture 1975, p. 679)

The subject of this historical research refers to the discus throwing as a competition event in the ancient Greece. A large number of researchers provided various analyses and hypothesis on possible ways of discus throwing performance thus creating a tempting challenge to conduct an experiment under conditions similar to those in the ancient Greece. The aim of the research was to establish the most authentic way of discus throwing performance in the ancient Greece.

Generally, the researches in the field of athletics so far have been studying the issues related to the process of training, while the technique of performance have not been studied so much. According to the analysis of images on Greek vases and kinograms done by various authors, approximate idea can be conceived on the way a discus was thrown in the ancient Greece.

---

2 He was born in Kinoskefali, near Theba (the province of Beotia) in around 518 B.C., and died in Arg in 438

3 An ode had its established meaning as a lyric poem, and such were all Pindar's odes, 44 of them.

4 Well-known Greek writer – satirist (around 125 – 180 A.D. from Samosata in Commagena (the province of Syria).

The archeological excavations in the territories where the style of living typical for the ancient Greece existed have brought to the discovery of authentic size of the discuses used then. A number of original items have been found which are kept in museum around the world. The discus used by the ancient Greeks was a flat, round stone in the shape of a lens, with 17-34 cm in diameter and 1.3-5.7 kg heavy. Discus size was not standardized, and the size depended on the town which discus originated from. The average weight of the preserved discuses is around 2.5kg. In later period, discuses were made of hard and heavy wood, bronze and lead. The discus then had the shape of a round, flat plate, while the modern ones are streamlined.

Different opinions have been developed based on the fact that there have been no precise data regarding the way of throwing discus in the ancient Greece. However, all the researchers agree that discus was thrown from a spot into the distance, from a particular space surrounded from three sides. Before the throwing, athletes used to dust discus and their hands with dirt in order to have a better grip of the object so it would not slip away because of sweaty hands or due to the smoothness of discus surface. The following researchers tried to explain how a discus was thrown: Miller (1979, pp. 30-31), Gardiner (1910), Christopoulos & Bastias (1982, pp.188-190), Swaddling (1999, pp. 65-66) who illustrated by means of kinogram the most probable way of discus throwing (Fig.1). She claims that *"there no data confirming that an athlete made more than three quarters of a turn before the actual throw, though today an athlete makes two and a half circles in running/spurt before throwing a discus "* (p. 66). A remark has to be made regarding the previous sentence: …"today an athlete makes two and a half circles in running/spurt before throwing a discus". According to Stefanovic (1992, pp.190) in the current practice and theory, a discus throwing is preceded by a 540˚ turn, which means one and a half turn.

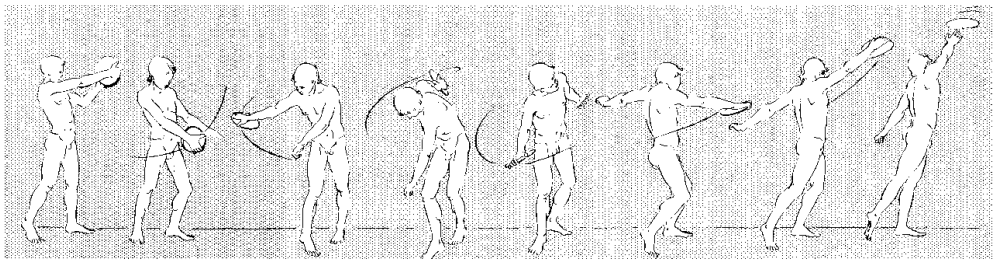


Figure 1 - Reconstruction of discus throwing according to J. Swaddling

It can be observed that certain authors tried to reconstruct the series of movements in discus throwing after studying images of athletes shown on ancient vases, coins or sculptures and eventually present these movements through a sequence of pictures in order to explain as clearly as possible the way how discus was thrown in the ancient Greece.

The place of discus landing was marked by a stick stuck into the ground (Fig.2). It has been assumed that the athletes threw discus three times, taking care not to cross the throwing line upon throwing the discus, which was not allowed, otherwise the throwing would not be valid.

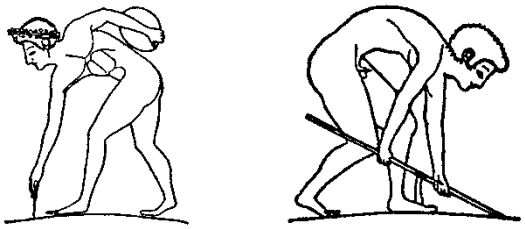


Figure 2 - Marking and measuring the length of discus throw

Some experts think that ancient technique of discus throwing was more difficult than today's because it required better coordination, harmonization of movements and good balance in ancient throwers, but despite of more strength and energy applied, that technique was less successful than the modern one. That style of throwing discus is called the Hellenic style.

There are not many preserved recordings of the results of ancient discus throwers which were called "discobolus", but the throw of a certain Phayllus

of Croton is remembered because he threw 5.25 kg heavy discus 95 feet (28.17m). According to Statius, Phlegias of Pisa threw his discus furthest sending it across the river Alpheus in Olympia. In his mythological epic Thebaid, Statius describes this occasion with following words: *"He (i.e. the athlete) kneels with his both knees on the ground, picks up the strength, raises the discus above his head and throws it so high that it seems hidden by the clouds"* (Enciklopedija fizičke culture A-O, 1975, p. 679).

Judging by scenes on vases, it could be assumed that both practice and competitions were accompanied by flute playing (Fig.3) which suggests that an athlete must have thrown a discus in harmony with the tune, in order to send the discus as far as possible.

Fig. 3 - Throwing a discus with music accompaniment

Following the stories of ancient storytellers, there was not a single case of injury or death during the competitions themselves, but such things happened at practice when athletes or viewers were insufficiently careful walking in the area where the discus was supposed to land after having been thrown. It can be realized how appreciated was discus throwing in the ancient Greece because coins showing a discus thrower were used at various times (Fig.4).

Fig. 4 - The coin 3 drachmas worth from the 5th century B.C.

Methods

The following methods were used in this experimental research: historical, experimental, statistical. The subject sample (N=5) used in this research consisted of the students of the Faculty of Sport and Physical Education in Belgrade. The variable sample consisted of following ways of performing the discipline:

- Throwing discus with the right foot ahead (DDN)
- Throwing discus with the left foot withdrawal (DLNP)
- Throwing discus with the left foot ahead (DLN).

Technique description and ways of measuring the results

All the variations in performing the discipline and the equipment used have been chosen based on the reconstruction of the event made so far (animation, kinograms, pictures etc.) The experiment was carried out on the sand flat surface near Belgrade. The subjects were barefoot wearing only sport shorts. At the same time, the video was recorded of different performances of discus throwing. Applying the research techniques on the recorded performances of the given athletic discpiline, the evaluation objectivity of differen ways in throwing discus is achieved. The results of discus throwing are expressed in meters (m), and only the best results out of three attempts are taken into consideration.

Interpretation of results and discussion

Descriptive statistics results

This data collection is formed from three characteristic series, that is three variations of discus throwing techniques: throwing discus with the right foot ahead (DDN), *throwing* discus with the left foot withdrawal (DLNP), throwing discus with the left foot ahead (DLN). The results of three ways of discus throwing, expressed in meters, are shown in Table 1.

Table 1 - Results of three ways of discus throwing

Subject	**DDN (m)**	**DLNP (m)**	**DLN (m)**
1	25.80	25.95	31.78
2	21.60	25.30	28.47
3	17.20	17.87	18.75
4	15.70	16.99	17.66
5	18.10	18.90	19.70

For describing each of the three characteristic series consisting of the same five subjects (N), the following are used: range (O), minimum value (Min), maximum value (Max), arithmetic mean (M), standard deviation (SD) and variation coefficient (V) and they are displayed in the Table 2.

Table 2 - Descriptive statistic indicators in three ways of discus throwing

	N	**O/R (m)**	**Min (m)**	**Max (m)**	**M (m)**	**SD**	**V**
DDN	5	10.10	15.70	25.80	19.6800	4.0506	16.407
DLNP	5	8.96	16.99	25.95	21.0020	4.2802	18.320
DLN	5	14.12	17.66	31.78	23.2720	6.4052	41.027

After the data have been processed, the following results have been got: range, i.e. the greatest difference was in the results of discus throwing with the left foot ahead (DLN) and it was 14.12 m, while the smallest difference was in throwing with the left foot withdrawal and it was 8.96 m. Discus flew the shortest distance in throwing with the right foot ahead (DDN), with the result 15.70 m, and it flew furthest in throwing with the left foot ahead (DLN) with the result 31.78 m. The arithmetic mean (M) shows that on the average the discus flew furthest (23.27 m) in throwing with the left leg/foot ahead (DLN), while it flew shortest in throwing with the right leg/foot ahead, with the average result value 19.68 m. SD has the greatest value in throwing with the left leg/foot ahead (DLN) which is 6.4052, and the smallest in throwing with the right leg/foot ahead (DDN) which is 4.0506. Variation coefficient, which refers to the homogeneity of group results, is not relevant for the research because only the best results are considered in an athletic competition – therefore it is taken only as an auxiliary indicator.

Comparative statistics results

Comparative statistics was done by comparison of certain statistical relations among three ways of discus throwing and t-test of small dependent samples among three ways of discus throwing.

Table 3 - Results of comparative statistics relation DDN - DLNP

DDN - DLNP					
N	**r**	**p**	**t**	**df**	**p**
5	0.946	0.015	-2.127	4	0.101

The table 3 shows that it can be observed that there is high correlation (r=0.946) at the significance level p=0.015 between discus throwing with the right foot ahead (DDN) and the one with the left foot withdrawal (DLNP).

Since t-test (t=-2.127) does not show statistically significant difference regarding the length of the throw (p=0.101), that means that the result in throwing with the left foot withdrawal (DNLP) was better.

Table 4 - Results of comparative statistics relation DDN-DLN

DDN - DLN					
N	**r**	**p**	**t**	**df**	**p**
5	0.976	0.005	-3.077	4	0.037

The table 4 shows that there is high correlation (r=0.976) statistically significant at the level p=0.005 between discus throwing with the right foot ahead (DDN) and the one with the left foot ahead (DLN). Since t-test (t=-3.077) shows statistically significance at the level of significance (p=0.037), that means that throwing with the left foot ahead (DLN) assures significantly/characteristically longer distance than throwing with right foot ahead (DDN).

Table 5 - Results of comparative statistics relation DLNP-DLN

DLNP - DLN					
N	**r**	**p**	**t**	**df**	**p**
5	0.991	0.001	-2.262	4	0.086

The table 5 shows that it can be observed that there is also high correlation (r=0.991) which is statistically significant at the level p=0.001 between discus throwing with the left foot withdrawal (DLNP) and the one with the left foot ahead (DLN). Since t-test (t=-2.262) is not statistically significant because it is close to the significance limit (p=0.086), that suggests the

tendency that more practice would probably brought about greater difference in throwing results.

Analyzing the video recording of subjects throwing discus, it was observed that all of them performed the first variation in a similar way. The average result in discus throwing with the right leg/foot ahead was 19.68 m, which is relatively short distance, while the longest distance was 25.80 m.

The average result in discus throwing with the left foot withdrawal was 21.00 m, while the longest throw was 25.80 m. Since there is high correlation (0.946) at the significance level p=0.015 between discus throwing with the right foot ahead and the one with left foot withdrawal, so t-test (-2,127) shows no significant difference in the length of throw (p=0.101), that means that the average result in discus throwing with left leg/foot withdrawal was minimally better, by 1.32 m.

The average result in discus throwing with the left foot ahead was 23.27 m, while the longest throw was 31.78 m.

Since there is high correlation (r=0.976) at the significance level p=0.005 between discus throwing with the right foot ahead and the one with left foot ahead, and t-test (-3.077) is statistically significant at the significance level (p=0.037), that means that discus throwing with left leg/foot ahead provides significantly longer throw than throwing with right leg/foot ahead (3.59 m on the average).

Since there is high correlation (r=0.991) between discus throwing with the left foot withdrawal and the one with the left foot ahead which is statistically significant at the level of p=0.001, so t-test (t=2.262) is not statistically significant because it is close to the significance level (p=0.086) and shows the tendency that more practice would probably brought about difference in average throwing results, which is 2.27 m.

Kinogram shown in Fig.1 (J.Swaddling,1999) is identical and refers to the way of discus throwing with the left foot ahead. Comparing the way the subjects moved during the experiment and the above mentioned kinogram, it

can be concluded that there is considerable similarity in the way the throwing was performed and it was probably the way the throwing was done at competitions in the ancient Greece.

Conclusion

Based on the research of different ways of discus throwing in the ancient Greece and possible ways of performing the discipline, the following was concluded:

- There is difference in the results of three ways of discus throwing (throwing with right foot ahead, throwing with left foot withdrawal, and throwing with left foot ahead) in avearge and maximum values of throws. The average result in throwing with right foot ahead was 19.68 m, while the longest throw was 25.80 m. The average result in throwing with left foot withdrawal was 21.00 m, while the longest throw was 25.95 m. The average result in throwing with left foot ahead was 23.27 m, while the longest throw was 31.78 m.
- All the authors mentioned in this research who studied the way of discus throwing always gave/showed/discussed only one possible way of performing discus throwing.
- I suppose that all three ways of discus throwing were possible: throwing with right foot ahead, throwing with left foot withdrawal, and throwing with left foot ahead, but at different times in the long history of the Olympic Games. It can be assumed that over the time they appeared in the same order.
- I suppose that the athletes chose the way of discus throwing that suited them best.
- There have been insignificant differences in the interpretation of discipline performance in the ancient Greece and possible way of performance so far.

References

1. Christopoulos, G. A. & Bastias, J. C. (1982). *The Olympic Games in Ancient Greece*, Athens: Ekdotike Athenon S.A.
2. Ćirić, A. (1996). *Igre u Olimpiji*, Beograd: Vreme knjige.
3. Đurić, M. (1998): *Izabrani ogledi, III, O helenskoj kulturi*, Niš: Prosveta.
4. Enciklopedija fizičke kulture A-O, (1975). Zagreb: Jugoslovenski leksikografski zavod.
5. Filostrato: *Περι γιμναστικης - La gimnastica* (prevod i komentar na italijanski jezik Vincenzo Noccelli), Napoli: Editrice HERMES.
6. Gardiner, E. N. (1910). *Greek Athletic Sports and Festivals*, London: Macmillan.
7. Γιαννακη, Β. Θ. (1979). *Αρχαιογνωσια - φιλοσοφια αγονιστικης*, Αθηνα: Παιανια Αττικης.
8. Homer (1977). *Ilijada* (prevod s grčkog, Miloš Đurić), III izdanje, Subotica: Matica srpska, Minerva.
9. Ilić, S. (1994). *Istorija fizičke kulture - Staro doba i srednji vek*, Beograd: Fakultet fizičke kulture Univerziteta u Beogradu.
10. Miller, S. (1979). *Ancient writers Papyri and inscriptions on the ideals of Greek athletics and games*, Chicago: Arete.
11. Pausanija (1989). *Vodič po Heladi* (prevod s grčkog, Uroš Pasini), Split: Logos.
12. Pindar (1952). *Ode i fragmenti* (prevod s grčkog, Ton Smerdel), Zagreb: Matica hrvatska.
13. Sirrakos, C.L. (1984). *The History of the Olypmic Games from the antiquity to the present times*, Athens: Eurotype S.A.
14. Stefanović, Đ. (1992). *Atletika 2 - Tehnika*, Beograd: SIA.
15. Swaddling, J. (1999). *The Ancient Olympic Games (second edition)*, London: British Museum Press.
16. Χρονης, Μ. Α. (2000). *Ολυμπιακοι αγωνες*, Αθηνα: Ειδικες εκδοσεις Λαμπροπουλος.
17. Zissimou, T. (2000). *The Olympic Games in Antiquity*, Glyfada: Tinna Zissimou.

HISTORICAL DEVELOPMENT OF THE OLYMPIC EDUCATIN IN SERBIA

The modern Olympic Games have been restored thanks to the ancient Olympic Games, giving rise to the Olympic movement. This research announces the following monograph dedicated to the Olympic movement.

The results of this research were published in the scientific journal of national importance „Physical Education and Sport Through the Centuries“. ***Šiljak, V.; Parčina, I. & Perović, A. (2014). Historical Development of the Olympic Education in Serbia. Physical Education and Sport Through the Centuries, ISSN 2335-0598, Vol. 1 (1), pp. 84-97.***

HISTORICAL DEVELOPMENT OF THE OLYMPIC EDUCATION IN SERBIA

Introduction

The modern Olympic Games and Olympism as a global movement abide by the principles of The Festivities in Olympia (The Ancient Olympic Games). However, modern times using all the new technology (training, pharmacological, communication etc.) solves the existing and at the same time brings new issues. The fundamental Olympic principles tend to be forgotten in attempt to reach new records, at any cost, leading to dehumanization of sport. The wellknown Olympic principle - *It is important to participate and not to win* has been abused so many times, therefore it should be applied, not just quoted invain. For these very reasons it is important for all people, not just children and youth to acquire basic knowledge of The Olympic Games, and the Olympic movement on the whole and to accept fundamental principles of the Olympism and behave accordingly.

Educational role of The Ancient Olympic Games was pointed out by Bishop Nikolaj Velimirović in his work *Body rehabilitation*: "The Olympic Games meant the most glorious festival of body and according to those festivals the Greek counted their time. All the cultural life of Greek people focused on these Games. The memory of the Games passed and their heroes inspired the youth, while the preparation for the victory at the forthcoming Games fulfiled the major part of their upbringing. To develop a healthy body and healthy spirit within such a body was the goal of upbringing in Sparta as wel as in Athens"[1].

[1] Nikolaj Velimirović, *Rehabilitacija tela* (Pirot: PI-PRESS, 2000), p. 52

Due to the intensive development of political, economic, social, cultural and other factors, The Olympic Games today have become one of the most significant events related to contemporary sport and physical education as well as the important factor in the development of every society. International Olympic Committee (IOC) strives to stimulate sport development. It cooperates with other sport organisations with the view of putting sport at service of humankind. The IOC carries out the principles of Olympism in compliance with The Olympic charter through a large number of its commissions and projects.

The subject of this research relates to the educational aspect of the Olympic movement. The aim of the research is to influence the development of scientific thought in the field of education by considering the Olympic values, which would primarily affect the interest and improvement in specialization of the experts. The task was to explore, explain and analyze this aspect in order to establish a dialectical unity of theory and practice. The main methods used in this paper are based on theoretical analysis and historical method.

Historical development

The roots of the Olympic eduction ideas can be traced back in the thoughts of Baron Pierre de Coubertain. He thought of himself as a padagogue. His motive for renewal the Olympic ideas, he found in the fact that ancient Greek society devoted significant attention to all aspects of education of their youth. Agonistic [2] approach and gymnastics brought about the ideal of kalokagathia, i.e. the harmony of well-developed body and spiritual wealth, and with realisation of that ideal robust and bodily strong people of healthy spirit was created. Pierre de Coubertain believed that sport should be a part of education of each young individual, in the very same way as science, literature and art. His goal was to offer harmonized education regarding both, body and spirit, as ancient Greeks used to have. The Olympic Games enabled that Coubertain's educational ideas become visible throught out the world and reach the goal. The organisation of modern Olympic Games enabled that

[2] Ancient Greek consider agonistic to compete in all fields.

such an idea became long-lasting and indipedent over the years. The Olympic movement today still supports Coubertain's principles because educatio through Olympism is therefore universal and fundimental based on essential human values.

The Olympic education in the world

Having in mind the fact that over the times, the Olympic movement has faced more and more aberration from the essential Olympic ideals during the last hundred years of modern Olympic Games, at the celebration of the 100th anniversary of the modern Olympic movement as well as the decission of renewal of the Olympic Games, the resolution was made to devote more attention to the education and upbringing in the Olympic spirit.

The idea of return to forgotten Olympic ideals and values came from Greece. The President of the Greek Olympic Committee, Antonio Zikas, developed the idea of the Olympic education upbringing at the conference of EOC in Athens, in November 1995. At the celebration of the 100th anniversary of the modern Olympic Games held at Panathenaikon stadium, April 6, 1996, he said:

"The Olympic Games held every four years are recognised throughout the world and make the vision of peaceful coexistance among all the people of the world close to us. Therefore, let us devote the next century of the Games, to children and their education about Olympism and sport. Let us introduce the laws which will enable the important messages of the Olympism and true sport be thought at the preschool level, if possible, and received by children around the world. Let us, at the dawn of new century, from this ground, send the most cordial greetings full of love to children, the stars of the world[3]."

The planning of international initiative for the Olympic education started in 1996, at the First Preliminary World Conference held at the place of the International Olympic Academy in ancient Olympia. During two following conferences (the one in Nausea and the other in Kalavrita) held in 1997 and

[3] Deanna L. Binder, *Be a Champion in Life* – An International Teacher`s Resource Book For Schools (Athens : Fondation of Olympic and Sport Education, 2000), p. 32.

1998 respectively, the educators and pedagogues of the Olympism and sport made the following statements regarding the Olympic education:

- We believe that integration of the Olympic ideals into the educational system presents an effective pedagogical method which will be gladly accepted by young participants.
- We feel that the Olympic education is an important part of world education and encourages the wish of all the people to make it a part of peaceful world.
- We understand that the Olympic education is an integral part of general education, which meets the demands of school system through potential incorporated in sport, in accordance to values of the Olympism and humanism.
- The Olympic Games, physical activity and sport, when harmonised with the basis of Olympism philosophy, are integral, not the sole element of the Olympic education[4].

The activities of the Olympic education programme tend to:

- Enrich human personality through physical activity and sport which are connected with culture. It is hoped that this activity will be lifelong one.
- Develop solidarity, tolerance and mutual respect which are connected with fair-play.
- Inspire peace, mutual understanding, respect for cultural diversity, enviroment protection, and essential human values with regard to regional and national needs.
- Encourage aspiration towards the highest achievements in line with the fundamental Olympic ideals.
- Develop the appreciation for human civilisation continuity and through research of the ancient as well as modern Olympic history.

[4] Deanna L. Binder, *Be a Champion in Life* – An International Teacher`s Resource Book For Schools (Athens : Fondation of Olympic and Sport Education, 2000), p. 34.

These basic goals stimulate development of physical education curriculum, health and life skills within most of educational systems in the world. The process of international evaluation preceeded release of chosen material confirming that the above mentioned activities will be useful in the classrooms on the all continents of the world.

Since late 1990s many people from all over the world including IOC, UNESCO, FOSE[5], helped the beginning of introducing philosophy of the Olympism into schools. The project started in Greece with publisheng of the first manual and continued inn other countries in the world. FOSE are aware of the fact that it is impossible that one manual could fulfil the needs of all the schools in the world which belong to different educational systems as well as different cultures. A long term strategic plan has been made in order to carry out this idea throughout the 21st century. FOSE together with its assosiates believe that there are people everywhere in the world wishing to help next generation make significant changes in their lifestyle. These people feel the need to learn and at the same time to teach "how to leave peacefully together"[6]. FOSE believes that stimulative educational activities can help children develop good personality.

The success of the project depends on teachers' engagement, imagination and sensibility, as well as on application of materials developed to encourage children to participate in the programme.

The material is designed to offer important information on the history of the Olympic Games as wel as strategy to create blend of social values, the Olympic spirit, with innate gifts children have, enabling them to grow up with the feeling of selfrespect and integrity. This material also includes stories and anecdotes from all over the world. In the attempt to reach all the children worldwide, the pilot materials sent to every continent received significant response and terrific suggestions.

---

5 FOSE – Foundation of Olympic and Sport Education

6 Statement of Antonio Zikas. in Deanna L. Binder, *Be a Champion in Life* – An International Teacher`s Resource Book For Schools (Athens : Fondation of Olympic and Sport Education, 2000) p. 33.

FOSE expects cooperation with the ministries of education from different parts of the world in order to ensure high quality translation of this international teacher's manual which is orinally published in English. The guidelines will be provided for those organisations wishing to translate this book for the purpose of schools in their countries.

The Olympic education within IOC

There is a special Committee within IOC, engaged in the Olympic education which includes two directions: research on the Olympism (academic world) and education through the Olympism (children, adolescents and athletes).

- Academic programmes
- Youth programmes

The Olympic Studies Centre (OSC), founded by IOC and situated in the Olympic Museum in Lausanne, is one of the largest centres dedicated to preservation of memory and spreading the idea of the Olympic movement as well as research coordination and improvement, teaching and publishing relevant materials. This centre offers information in written, visual and audio form. The purpose of OSC is to make the collections of the Olympic heritage (that are taken care of within 5 out of its 7 sectors) available to public.

The written documents and audiovisuals are comptence of the following sectors:

- The historic archives of IOC
- Library
- Information centre
- Images and sounds
- Departement of photography

Besides, the purpose of the OSC is to promote the research regarding the Olympism through:

- Programme grants
- Documents for on-line research

Also, the Centre encourages a variety of academic activities related to the Olympism:

- Conferences and symposiums
- Different cooperation programmes
- Looking for ways to develop and enable contacts and exchange between researchers and institutions studying the Olympism.

The Olympic Museum has special space devoted to its young vistors. There are special programmes meant to encourage discovering the Olympism and the Games designed to fulfil expectations of children, adolescents, school groups etc.The programmes include educational thematic visits to permanent exhibitions as well as to temporary ones, educational materials etc.

The Olympic Values

The Olympic values represent the basis of the Olympic movement. They are incorporated in every action and decision and the viability of these values have played an important role for long-lasting success of the Olympic movement. Three basic values of the Olympic movement are excellence, friendship and respect.

Excellence means *to do one's best* in chosen profession. It does not refer only to achieving victory, but to participation and improvement in order to reach personal goals in everyday life by putting into work together strong body, mind and will.

Friendship encourages the view that sport is the means of mutual understanding among individuals and people from all over the world. The Olympic Games inspire people to make an effort to overcome political, economic, gender-related, racial or religious differences and establish friendship despite these diversities.

Respect includes: self-respect, respect for someone's body, complying to the rules and regulations, respect for sport and environment. When related to sport, respect implies fair-play and struggle against using drugs and any form of unethical behavior.

These values appear within six primary fields of interest of the Olympic movement:

- Sport for all
- Development through sport
- Education through sport
- Women and sport
- Achieving peace through sport
- Sport and environment

The Olympic upbringing and education in Serbia

Though the Olympic spirit was cherished within the previously mentioned system of sport competitions, the basic aims were not fully achieved. After the initiative originated in Greece in 1996, considering conclusions made at three expert conferences regarding the aims, dynamic as well as the means of introduction of the Olympic upbringing and education into schools, certain changes have happened regarding the system of sport events in our country.

The support of Yugoslav Olympic Committee is given through the resolutions made in February 1997 which refer to continuation of organizing the Olympic sport games of school youth of Serbia together with starting the initiative for organizing the Sport games of the Balkan countries students.

Some parts of new programme were partially realized through the previously established system of sport competitions. The experiences acquired can help in further realization of the programme and also in participating in the world Olympic movement. The Association of School Sport and the Olympic Upbringing had to cooperate with the Yugoslav Olympic Committee regarding the realization of the Olympic upbringing programme. The above mentioned Association also had to establish connection with UNESCO's Department for School Sport Development and the International Associatio for School Sport.

The Olympic sport games of school youth of the Republic of Serbia

School competitions bring joy due to the participation itself and besides that encourage students to practice systematically. These competitions also contribute to establishing closeness and friendship among young people and developing fair-play relation. School competitions have an important role in upbringing and education of children and young people.

The Olympic sport games of school youth are the lasting system of sport competitions with participation of schoolchildren at the primary and secondary school level competing in 12 events:

1. Swimmimng
2. Handball
3. Shooting
4. Futsal
5. Table tennis
6. Rhythmic gymnastics
7. Gymnastics
8. Skiing
9. Volleyball
10. Athletics
11. Basketball
12. Spring cross-country

The Olympic sport games of school youth of Serbia are organized every four years. So far there have been School Olympic Games as follows:

- I Kragujevac (1980)
- II Kruševac (1984)
- III Belgrade (1988)
- IV Arandjelovac (1992)
- V the games were not organized
- VI Zrenjanin (2000)
- VII Zaječar (2004)
- VIII Niš (2008)
- IX Sremska Mitrovica (2012)

The Winter Olympic Games for Schoolchildren were always organized on Kopaonik with the exception of those in 1992 when the games were organized on Brezovica.

The competitions are organized and managed by the Association of of School Sport and the Olympic Upbringing of Serbia. It designs and realizes school sport development programmes, cherishes and respects sport spirit and morals and spreads the ideas and spirit of the Olympism. Teachers of physical education, who are together with their students directly included in the system of competitions, play a significant role in carrying out the programmes of the Association. The number of (student) participants at all levels during one school year goes up to 350,000.

The following Commissions are formed within the Association:

- Competition Commission
- Disciplinary Commission
- Information Commission
- Marketing and Advertising Commission

The system of competitions is devided into 5 levels:

- School level (the competition among the classes within a school)
- Municipality level
- District or town or city level
- Regional level
- State level

There are general and specific provisions included in the Book of Rules for School Competition Organization. All full time students (boys and girls) of primary and secondary schools are allowed to participate in competitions. Depending on the sport event, participants can be devided into 2 to 5 age groups. The Association Administrative Board decides on the calendar of sport events in September for the current academic year and the schedule has to be carried out. This system of school competitions (through all the levels) comprises of various independently conducted sport competitions, in line with the established calendar for the given academic year.

Schools themselves set the dates for the first level of competitions considering the established calendar of events, at least a week prior to the municipality level events.

The places of events at the higher level competitions (districts/ town/city/regional) are precisely appointed in advance.

The Book of Rules for School Competition Organization defines the following:

- the way of entering the competition
- health care of participants
- participants' clothes and footwear
- competition organizers' duties
- duties of judges/referees/umpires and delegates
- the procedures regarding disputes and complaints
- competition funding
- information on competitions.

There are sets of competition rules for all the sports.

The programme named ″Little Olympic Games″ consists of various activities for students of primary school junior years:

- fun playground activities meant for the first-graders,
- skill-oriented playground activities for the second-graders,
- advanced skill-oriented playground for the third/fourth-graders.

Compulsory programmes are defined for each item of equipmemt in gymnatsics competitions for boys and girls respectively, as well as the rules for grading their performance.

The Association has also established the Rules for awarding schools, teams and individuals for achievements accomplished in the competitions at the Olympic sport games of school youth in Serbia.

The above mentioned organization and system of school competitions provide incentive to develop massive sport participation among schoolchildren, creating possibility for them to express their individual and team potentials.

Unfortunately, besides the fact that teachers of physical education and other people involved in the organization of these competitions put tremendous effort and enthusiasm, school sport does not receive the necessary attention of the society, causing participants and organizers to face significant problems at all competition levels. This fact is reflected in negative quantitative outcomes of the research in the secondary school final year students in Serbia [7]carried out in 2005.

The results of the research demonstrated that the senior students of secondary schools had lacked up to high degree knowledge on the Olympic sport games of school youth in Serbia. It could be assumed that such a situation was the consequence of inadequate approach, stessing out the need that theoretical approach should become a part of psycical education curriculum, as well as necessity to scale up the number of lessons per week and/or introduce the subject the Olympic upbringing and education, which has already been done in many countries due to the initiative and support of MOC and FOSE.

Mini Olympic Games at the Faculty of Sport Management

The aim of this event was to support the idea of school sport development and devotion to sport spirit and moral through sport competitions with the view of extending the Olympic ideas and the spirit of Olympism. Such an event stimulates massive participation in sport enabling possibility to express individual and team potentials of young sport contestants. Besides the fact

[7] Violeta Šiljak, "Determining the gnoseological values of students on the Olympic sports games of school youth of Serbia", (paper presented at I International conference „Management in sport", Belgrade, Serbia, 24. may, 2005.)

that these events bring together young people, they also encourage systematic exercise, fair-play relations, and have important educational role.

Mini Olympic Games were organized in 2004 and 2008 inspired by the summer Olympic Games held in Athens and Beijing respectively. Mini Olympic Games of 2008 included the press conference at which the importance of spreading the Olympiuc Games was highlighted. The programme of the sport events at the same Games held on Ada Ciganlija made an attempt to connect the ancient and modern times.The athletic events carried out in the manner the ancient athletes used to compete brought the memory of the past, while the football, basketball tournaments as well as rowing races symbolised the modern Olympic Games**.**

Conclusion

The length of 28 centuries that have passed since the first Olympic Games in the ancient Greece impose an obligation to cherish them expressing dully respect for all those people and individuals who started and make them thrive. That poses necessity for comprehensive consideration of their further development through Olympic upbringing and education. The Faculties teaching sport science have already introduced the subject of the Olympic education into their curriculum, hoping that future pedagogues and researchers will spread the idea of Olympism.

Literature

1. Binder, Deanna L. *Be a Champion in Life* – An International Teacher`s Resource Book For Schools. Athens : Fondation of Olympic and Sport Education, 2000.
2. Bulonj, Iv P. *Olimpijski duh Pjera de Kubertena*. Beograd: Narodna knjiga, 1984.
3. Ilić, Vladislav S. *„Olimpijsko vaspitanje i obrazovanje u sistemu Olimpijskih sportskih igara školske omladine Srbije* (1970-2000)“. Diplomski rad, FFK, 2000.
4. Ilić, Stefan i Slađana Mijatović. „Olimpijsko vaspitanje i obrazovanje u školama“. *Dečiji sport od prakse do akademske oblasti*, materijal za

pripremu ispita iz predmeta Osnove sporta mladih, autorizovana predavanja, Beograd: Fakultet sporta i fizičkog vaspitanja Univerziteta u Beogradu (2003) str.23-27.
5. Mechikoff, Robert A. *A history and Philosophy of Sport and Physical Education – From Ancient Civilizations to the Modern World*. San Diego, USA: WCB – McGraw-Hill, 1998.
6. *Pjer de Kuberten – Ideje, delo, život*. Beograd: Jugoslovenski komitet Pjer de Kuberten.
7. Skembler, Grejam. *Sport i društvo - Istorija, moć i kultura*. Beograd: Klio, 2007.
8. Šiljak, Violeta. (2005). „Utvrđivanje gnoseoloških vrednosti učenika o olimpijskim sportskim igrama školske omladine Srbije“. Rad predstavljen na I Međunarodna konferencija „Menadžment u sportu“, Beograd, Srbija, 24. maj, 2005.
9. Šiljak, Violeta. *Istorija sporta*. Beograd: Fakultet za menadžment u sportu, 2007.
10. Čičanović, Slobodan, gl. i odg.ur. *Program i propozicije*. Beograd: Savez za školski sport i olimpijsko vaspitanje Srbije, 2004.
11. Velimirović, Nikolaj. *Rehabilitacija tela*. Pirot: PI-PRESS, 2000.

Web pages

- www.aafla.org (recovered on 14.07.2013.)
- www.arts.unsw.edu.au/olympic (recovered on 14.07.2013.)
- www.asoif.com (recovered on 12.07.2013.)
- www.corporate.olympics.com.au/vic/index.cfm (recovered on 10.07.2013.)
- www.coubertin.ch/e/news.htm (recovered on 10.07.2013.)
- www.culture.gr/2/21/211/21107a/og/games.html (recovered on 14.07.2013.)
- www.dse.nsw.edu.au/staff/F1.0/F1.5/olympic.htm (recovered on 12.07.2013.)
- www.eurolympic.org/home.htm (recovered on 12.07.2013.)
- www.greece.gr/education/SchoolsAndUniversities/olympicsgotoschool.stm (recovered on 08.07.2013.)

- www.ioa.org.gr (recovered on 11.07.2013.)
- www.oks.rs (recovered on 11.07.2013.)
- www.olykamp.org/isoh (recovered on 17.07.2013.)
- www.olympiaka.com (recovered on 14.07.2013.)
- www.olympic.org (recovered on 13.07.2013.)
- www.olympic.org/uk (recovered on 13.07.2013.)
- http://www.olympic.org/Documents/olympic_charter_en.pdf (recovered on 13.07.2013.)
- www.olympic.org/uk/passion/studies/index_uk.asp (recovered on 134.07.2013.)
- www.SLC2002.org/kids/index.html (recovered on 01.07.2013.)
- www.unesco.org/youth/charter.htm (recovered on 01.07.2013.)

INDEX

D

E

F

G

H

I

P

R

S

ABOUT THE AUTHOR

Born in Belgrade (Serbia). After having completed high school, she entered the Faculty of Sport and Physical Education, where she graduated in 1988. In 1996, she obtained her Master's Degree at the same Department, with a Master's Dissertation "Relations of developmental results tendency in the athletic sprint 100 m and long jump" and a Doctoral degree, in 2002, with a thesis entitled „Researching on mode of performing athletic events at Ancient Olympic Games", at the same department. She was engaged in „XIII Belgrade Gymnasium" as professor of physical education, where she achieved significant results with volleyball and gymnastics school teams (1st and 2nd place on State competitions). As a Lecturer (2003), Associate Professor (2008), and Full Professor (since 2013) on Faculty of Management in Sport, Alpha University, Violeta Šiljak has covered a large number of subjects - Undergraduate, MSc and Doctor Studies: History of Sport, Olympic Education, Sport and Social Systems; Methodology of Scientific Research and Anthropological Research in Sport. From 2002 and further, she was engaged as a professor for subjects: Sport Objects, History of Sport & Olympic Educatiton and Management of Sport Organisations at International Faculty of Sport E.C.P.D. Prof. Šiljak has published over 100 papers and research work reports including the following books: History of Sport (2007; 2011) and Olympism (2013). In addition to teaching, Violeta Šiljak was elected as a Principal of „Sport Gymnasium" (2002), until 2003 when she transfered to Faculty of Management in Sport, Alpha University in Belgrade. She was a member of Commission for educational field, "Physical and Health Education" formed by the Ministry of Education and Sports of the Republic of Serbia. On Faculty of Management in Sport she was Executive organizer for three projects: in association with the Chinese Embassy was organized an exhibition entitled "Beijing in preparation for the Olympic Games 2008", in association with the Embassy of Greece - project „Mini Olympic Games" and organization of 2nd Mini Olympics 2008. Violeta Šiljak is a member of international organizations: FIEP (International Federation of Physical Education) since 2010 where is the Vice President of the European Section of the History and Physical Education; CESH (European Committee for Sports History) 2003, 2014; BAHPES (Balkan Association for the History of Physical Education) since 2000. She speaks English and Greek. She has one child.

CIP - Каталогизација у публикацији - Народна библиотека Србије, Београд

796/799(091)

ШИЉАК, Виолета, 1961-
Research in History of Sport : monography / Violeta Šiljak. - Belgrade
: V. Šiljak : FIEP Section of History of Physical Education and Sports,
2016 (Belgrade : Ris Studio). - 160 str. : ilustr. ; 24 cm

Tiraž 300. - About the author: str. 160-[161]. - Napomene i bibliografske
reference uz tekst. - Bibliografija na kraju svakog poglavlja. - Registar

ISBN 978-86-920235-0-7 (VŠ)

a) Спорт - Историја b) Физичка култура - Историја
COBISS.SR-ID 225651212