

BREASTSTROKE STYLE - DYNAMIC AND HISTORIC SOURCES

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INTRODUCTION

The development of swimming styles is dictated by the changes in the rules of the competitive swimming. "... In recent years, hypoxic resistance in the swimming sports is a fundamental factor that directly affects the sports results and the final ranking in the race ..." (Dimitrova, 2014). A nowadays international FINA requirement regulates the technique in all water sports: swimming, synchronized swimming, water polo and diving. Into the 21st century and the latest research on the health effects of water activates the spread of all aqua practices (Dimitrova, 2020a; Ignatova, 2018a) including "...adapted programs for pregnant women..." (Nesheva, 2019) or the muscle soreness (Kaneva, 2009a; Ignatova, 2018; Chipeva, 2018). It is important to be discussed the problem of the importance of the water for the health prevention thought physical activity (Dimitrova, 2014a; Dimitrova (Димитрова), 2019) and the direct link to improving the quality of life and the health status of practitioners (Kaneva, 2009; Polimenov, 2019; Dimitrova (Димитрова), 2020). In this paper we attempt to trace in detail the development of the style breaststroke from the antiquity to 1952. Consciously we confine our analysis into the period from the emergence of research for this swimming style to the first official Olympic Games.

Given that the development of the swimming styles are not sufficiently studied and reported in the references, we focus our attention on the years before 1896. Even after the first Olympic Games scientific experiments for analysis are with vague or incomplete conclusions about how to swim, what are the style characteristics of the classic version of breaststroke and the differences with applied modern skills. The literature found evidence for "... ancient Eastern practices in search of effective anti-stress influences ..." in the sports training of elite swimmers (Dimitrova, 2019a) and admiration for the natural resources of mineral or spring water, which is "... a gift from the gods ..." and "... today [we] perceive water as a vital and we cannot imagine existence without it..." Димитрова (Dimitrova, 2014a). Under the current level of International development at all swimming sports, each one of them dreams about grow up.

To achieve the formulated objective we made the following main **tasks**:

- Identifying social and sporting causes of the style breaststroke;
- Defining periods and stages in the development of the technique of the style breaststroke;
- Analysis of key indicators from antiquity to the first Olympic Games and separation of the breaststroke of the butterfly stroke.

The **object** of this work are indicators distinct differentiation of modern technology of the style breaststroke.

Subject of the study are the specialized reference sources and private swimming historical materials.

RESULTS

Based on the analysis made the literary we allow ourselves to differentiate two periods with the corresponding stages in the development of the breaststroke technique into account assigned tasks for the study period (Figure 1).

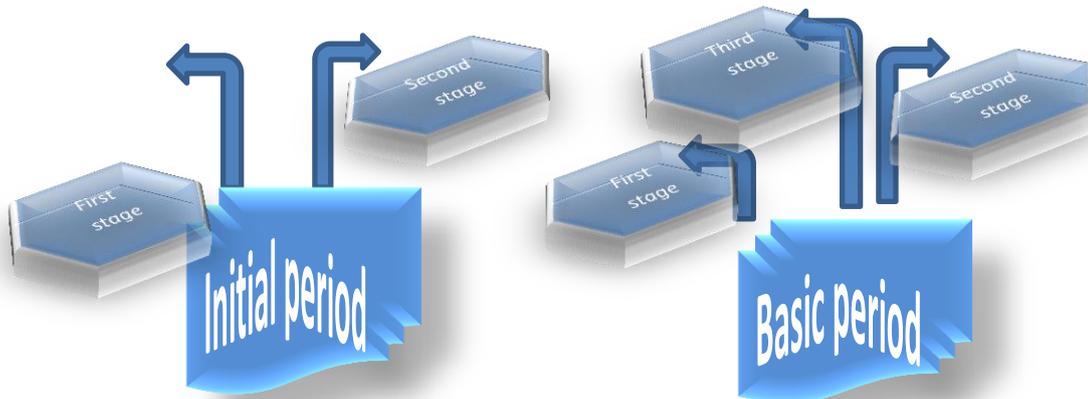


Figure 1: The differentiated periods with the corresponding stages in the development of the breaststroke skills.

Initial period - from ancient times to 1896

First stage: Emergence of the swimming styles

The first historical evidence of the emergence and development of swimming dates back to first ancient historical evidence and the development of swimming times. Depending on geography, religion and economic development of nations, swimming has developed at different speeds. The fact of this are the found vases decorated with floating people, rock paintings and other images that demonstrate the emergence and use of swimming.

In ancient times, swimming is used in both occupational and household activities - hunting, fishing, and also for military purposes.

In ancient Egypt, Assyria and Babylon are also found papyri and carvings depicting the use of swimming as a means of hunting, fishing, crossing rivers and water obstacles of soldiers, as well as people who use swimming in working conditions.

It can be assumed that for the first time in ancient Greece people used successive movements with the limbs to move in the water like modern crawl and also simultaneous movements mimic the movements of breaststroke and dolphin.

In ancient Rome, swimming is also used primarily for military purposes. Roman historians talk about training their legions in the ability to swim.

Second stage: distribution of the breaststroke in Europe

During the Renaissance period in the 14-18 century, Educating human paying attention not only intellectual but also physical development of the generations. During this period, released the first swimming guide in Augsburg (1538). Nicolas Widmann entitled it "Kolimbretika." In the following years the development of swimming gradually gaining momentum through the construction of swimming pools. Follows the establishment of training schools in Paris in 1785g., Berlin, Vienna, Prague, Russia, where he has applied mainly breaststroke technique.

As issued in this period of training aids also recommended this technique - "Full course of learning to swim based on new experiments on the relative weight of the human body" – in 1794 by Ornotsio De Bernardi, and "Little guidance on swimming" - 1798 by Guts Muts and others.

Under the influence of England swimming as a sport is spreading in Germany, France, Sweden, Holland, Denmark, Austria, Czech Republic, in Europe, the first style of training and racing is breaststroke. In America, swimming develops only in the early 20th century, mainly used the technique of crawl.

Basic period 1896-1952

First phase: style breaststroke in the first Olympic Games.

The program of the first Olympic Games held in 1896 in Athens includes eight kinds of sports, one of which is swimming. His subjects are only four - 100, 500 and 1200 meters freestyle and 100 m. applied swimming. In freestyle been permitted to use any type of skills in the distance, as well as any change of swimming technique.

All participants used predominantly one already formed at the end of the century, two main options of swimming breaststroke, "swimming sideways" and "tradgan." In the process of evolution until today, all of those styles of sports technique remain only the style breaststroke.

Second stage: Classical technique

The first prominent representative of the classical technique of swimming breaststroke stay Eric Rademacher between 1922 and 1924, when the results achieved respectively 2.54.4 min. and 2.50.4 min. Feature of his style is the advantage of working legs compared with that of hands.

To increase the efficiency of the work with the legs is considered necessary impetus to carry a larger motion. This movement is called a "wedge scissors" at which relied primarily to move from pushing of the wedge of water between the two legs. Similarly swim in 1935 and G.Kartone (200 m - 2.39.6 min.). Swimming body lying horizontally, hand scoop made under the water surface to the line of the shoulders; legs out horizontal movement with broad "wedge scissors"; head is raised for the breath in the phase of stroke after a dip in the water and exhale; coordination of movements is relatively segmented, with extended slide.

Third stage: Changes in the movements of the legs

The technique of the movements of the legs gets a boost in its development with the imposition of butterfly around 1936, the major acceleration in this style comes from the work effort of the hands and the technique of leg movement obeys the cycle of arms. When the legs appear the following amendments: to use more rational stroke of the hands, reduce resistance arising from the collection of feet and prepare them for a boost in the preparatory phase so they fold less hip.

DISCUSSION

And to ensure a high shoulder line and the acceleration conferred by the legs is palpable; the momentum is carried out with greater speed mostly backwards with slight incline. These changes in butterfly are transferred to the technique of legs in the style breaststroke. Initially retained the traditional width of thrust, but now the impetus is derived primarily back. Thus was born "circular pushing kick."

In the postwar years until the London Olympics (1948), the breaststroke technique is significantly improved by the Dutch. This is characterized by high rates of movement resulting from the reduced drag and a significant narrowing of the gap with their feet. Dutch apply "motive scissors." The push in the slightly incline helps to maintain a high shoulder girdle, as the head is fixed on the surface, which creates a stable posture.

Characteristics of modern breaststroke technique, which can be formulated as the third period in the development of the style will cover through the subject of our future studies.

CONCLUSIONS

The analysis of the study give reason to be formulated the following important conclusions:

1. We found the causes of the style breaststroke - social and sports;
2. We have identified two specific periods - primary and secondary;
3. We define two stages in the first period and three in the second - the development of separation technique of the style breaststroke.

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