# HI STORY OF RULE CHANGES IN WATER POLO 

Yordan Donev ${ }^{1}$ and Marko Aleksandrović ${ }^{2}$<br>${ }^{1}$ Faculty of Sport and Kinesitheraphy, National Sports Academy, Sofia, Bulgaria<br>${ }^{2}$ Faculty of Sport and Physical Education, University of Niš, Serbia

Review paper


#### Abstract

The modern water polo has very few similarities to the game originally introduced in England. In the course of its centennial history almost every aspect of the game has changed. The duration of the periods, as well as their number, the quantity of team members, the attacking time and exclusions and many other aspects have gradually evolved giving the modern water polo a totally different appearance. Significant improvements have also been made concerning the general preparation of the athletes. In general, the evolution of water polo game is a long process that still goes on. The main goal of this study was to systemize the major changes in the game's history.


Key words: water polo, history, game rules

## I ntroduction

The water polo game has a long history that goes back to the mid 19th century. It first started in England, to be accepted and enhanced later by the Scottish so at the beginning of 20th century it became popular across Atlantic Ocean as well, and then across the globe. Men's water polo was the among the first team sports introduced at the modern Olympic games in 1900.

Today water polo is being played in many countries in several age categories, the players are both male and female, and it is considered to be one of the most demanding sports when it comes to physical and psychological aspects of the game.

Modern water polo has very little in common with the original game that originates from England. In a more than 100 years long history almost every aspect of this game has changed. Change of the duration time and the number of playing periods (quarters), the number of players, attack time and exclusion time as well as many other aspects lead to the fact that the modern water polo differs greatly from the one in the past.

Significant rule changes had a great influence on the general players' training. The evolution of water polo is a very long process that still goes on. The main purpose of this work is chronological systematization of main changes in the history of water polo game.

First period - game onset and its forming (1869-1876)
1869. - The game dates from mid 19th century Eastern India where the officers of colonial corpus decided while playing polo to experiment with a similar team water sport.


Picture 1. «Water Polo» (30)
Around 1869. the game was transferred to England and it soon became widely known. At this early stage of its development water polo first borrows the rules from rugby and after from football as well, and it is played for fun in lakes and rivers. The first "ball" used was a pig bladder which was soon replaced by a rubber ball.
1870. - London swimming club creates first set of 11 rules for the "water football". These rules are general and not obligatory. They tolerate rough and static play instead of techniques and speed.


Picture 2. «Water football» (20)
Second period - creation of unique rules and their use at the international level (18771907)
1877. - a serious progress in the game development was noted when William Wilson presented the first written rules for "water football" in Glasgow -Scotland.


Picture 3. William Wilson (18)
1879. - A goal similar to the football one was used for the first time in water polo game. The dimensions of the playing field were determined and the recommended number of players was 9.


Picture 4. Goal in Wilson's rules
1880. - The game is played in Scotland as well and by performing the "trudgen" style, many changes are being introduced in the rulebook as well as the complete form of water polo.

There is a general tendency toward speeding up the motion and using several technical ways of managing the game, replacing static duels.
1883. - The game lasts 8 minutes.
1884. - The New Britain's swimming association officially recognizes the new game named "water football". The number of players is down to 8 . The goal measuring 10ft: 3 ft is obligatory, and a shot is considered valid only if the ball entered the goal.
1886. - The number of players is down to 7 . The drafting committee, which consisted of four members, changed the game rules. The projects imply that the playing field is 30 yd long and not less than 20 yd wide. The goal dimensions are obligatory ( $10 \mathrm{ft}: 3 \mathrm{ft}$ ), and the players are forbidden to step the bottom of the pool during the game. All English clubs unanimously accepted represented reports and recommendations to change the rules. The first officially documented championship is held, where the "Berto" team won the final game against "Otar" with 3:0. J ohn Robinson, ex member of the Lankshear club and a swimming instructor organizes the first water polo team in the USA under the aegis of the Boston Athlete Association.
1890. -London's water polo league is founded. 28/07- the Scottish play against the Kensington team and win 4:0 relaying mainly on the fast team combinations with the ball instead of static dribbling. The first American water polo championship is held, the winner is Sidnam swimming club.


Picture 5.The American version of water polo game (25)
1891. - the first encounter at the academic level was held between the Cambridge and Oxford Universities, Oxford beats Cambridge with $4: 1$ and repeats the success next year5:1.


Picture 6. Illustrations from the matches Oxford and Cambridge in 1891 and 1906 (30)
1893. - The game spreads in Germany
1894. - Water polo is being played in Austria
1895. - France and Belgium join the countries that develop the new game.
1897. - The game is widely known and popular in Hungary too
1900. - Water polo is part of the program of the second Olympic Games in Paris as a demonstration sport. The participants of this first Olympic tournament are the teams from Great Britain, Belgium and France, while British win Belgians in the finals with 7:2. The game becomes popular in Italy as well.
1904. - At the third Olympic Games in Saint Luis the water polo tournament is held according to American rules. Therefore the German national team, who wanted to take part in it, cancelled its participation and the only teams fighting for the title are the American ones. The gold medal is won by New York athlete club who played better in the finals against the team of Chicago athlete association.
1905. - Splashing the water in opponent's face and hitting the ball with the fist is added on the list of fouls.
1907. - Water polo enters the ex Yugoslavia with Sombor Sport Association introducing it in its program of activities.


Picture 7 -detail from the Olympics in Saint Luis 1904 (30)

Third period - creating international structures that manage the game development (1908-1969)
1908. - 19/07 International Swimming Federation (Federation Internationale de Natation-FINA) is founded in London.


Picture 8. FINA \& LEN Logos $(19,22)$
1912. - First national water polo championship in Germany.
1918. -Rules regarding the free throw had changed: according to the new text the only player who can make the throw is the one closest to the place where the foul was made.
1919. - Detailed description of a way in which a free throw should be done.
1926. - LEN - Ligue Européenne de Natation was founded.
1928. - The measuring of the playing field in yards was predetermined and disobeying the referee's decisions enters the list of fouls.
1929. - During the 11th FINA congress International water Polo Board (IWPB) was founded. It consists of four British representatives and four FINA members, and its purpose is to create a unique set of rules that makes the game more dynamic and gives better results. This set of rules would come into force on 01/01/1930.
1932. - IWPB allocates the fouls into 3 subgroups; ordinary foul, major foul, foul sanctioned by banning from the play and a penalty throw. Dimensions of the playing field are fixed to 30 m length and 20 m width. The ball weight has been determined as well, for the first time. It is between 400 g and 450 g , which is more than the one previously used$360 \mathrm{~g}-420 \mathrm{~g}$.
1936. - James Smith, a coach from California and an author of several books on water polo suggests the use of a synthetic rubber-coated ball, which is more durable and makes the navigation easier.
1938.- Splashing the opponent in the face in a 4 m zone enters the list of major fouls sanctioned by banning from the play and penalty throw.
1942.- A new rule has been introduced by which it is allowed to shoot at the goal directly from a free throw, if a free throw has been assigned outside of 4 m zone as a result of a major foul.
1949. - After the London Olympics IWPB suggests introducing "South-American" rules on experimental basis that allow players to move while the time is stopped. The rule that allows shooting at the goal after a major foul committed outside the 4 m zone has been changed.
1952. - The game rules have an additional line- every referee's decision is final.
1956. - The beginning of the game from de center after the shot has been introduced, and every action inside the 4 m zone that interferes with shooting at the goal is considered major foul that leads to a penalty shot.
1961. - The game duration changes: 4 periods, 5 min each, without break.
1967. - For the sake of maintaining the equal number of players in both teams, a new rule was introduced which says that when a major foul is committed the team of the player who committed it gets a penalty point. 3 penalty points lead to a four-meter line penalty shot in favor of the opposite team. FINA adds to the competition rulebook the illustrations of most common fouls in the interest of easier understanding the rules' logic.

Fourth period - the game's development worldwide
1970. - The penalty points system is replaced by a new one -personal fouls system.
1971. - one-minute penalty is introduced for committing a major foul.
1975. - IWPB recommends the use of caps with plastic ear protectors.
1977. -The attack time is reduced to 35 sec . The duration of exclusion due to a major foul is down to 45 sec . Two referees control game.
1981. - A unified referees' sign system was introduced. The number of players is up to 13 ( 7 playing and 6 in reserve). The game duration is increased to 4 quarters, 7 minutes each.
1984. - During the FINA congress in Los Angeles, the committee suggests two new rules: To allow an obligatory replacement of the excluded player by his teammate who would enter the game in the indicated zone i.e. Penalty area. To forbid the player who stands with his back turned to the opponent's goal, and who "earned" a free throw, to continue holding that position after he finishes throwing the ball. Both suggestions were dismissed.
1986. - FINA technical congress was held in Madrid during which following decisions in changing the game rules were made: The exclusion time is down to 35 sec . Receiving three personal fouls (ordinary fouls mostly committed by central defense players) puts the player on the bench the remainder of the match. Attack fouls are no longer sanctioned with a penalty point after a free throw.


Picture 9. A detail from World Championship in Madrid 1986 (30)
1991. - During the FINA congress in Perth, Australia, a decision has been made to cut down the exclusion time to 20 sec . Also, a goalkeeper is permitted to throw the ball in the direction of the opponent's goal but he is not allowed to go behind the central line of the playing field. If at the moment the playing time runs out the ball flies across the field and enters the goal the shot counts as valid.
1994. - During the FINA congress in Rio de Janeiro, technical committee gives 8 suggestions for changing the game rules: Reducing the playing field ( 25 m : 16 m ), Cutting down the number of players to 6 , Using a smaller ball, Obligatory entrance of an excluded player (after reaching the 2 m penalty area). Allow the replacements to be made at any time in a regulated sequence, Introducing 7 m zone outside which free throws can be performed directly towards the goal, Replacement of flags by the referees, ,Coaches have 2 technical time-outs, which they can ask for at any time when their team is in position of the ball. The purpose of these suggestions is greater game's dynamics and attractiveness for viewers. For the same reason, no more limitation in performing a free throw from the place of the foul when the ball is further away from the goal then the place of the foul itself. In the matches where it is necessary to have a winner, a rule of "golden goal" has been introduced- the third match's extra period ends after the shot has been scored by either parties.
1994. - During FINA technical congress in Rome a decision has been made to use the new suggestions experimentally at the World Junior Championship in Dunkirk 1995.
1996. - Ad hoc FINA congress held in Berlin during the pre-Olympic water polo tournament dismisses the first four suggestions accepting the rest of them, and the decision enters the force subsequent to Atlanta Olympics held that same year.


Picture 10. Water polo referee (24)
2005- New rule changes have been made during the FINA congress in Montreal. The changes were following: 1) The dimensions of the playing field were precisely determined for official matches- 30 m : 25 m for men and 25m: 20 m for women. 2) The match duration is up to 8 minutes each quarter, and the break time between the third and the fourth quarter is 5 minutes. 3) The 3rd technical break is introduced; it can be used only in extra-time, 4) The attack time is down to 30 sec. 5) 4 m and 7 m lines cease to exist, instead a 5 m line is introduced and all the rules applying to them, remain for 5 m one. 6) The last game element that implies using both hands, blocking the shot towards the goal is treated as a foul. 7) The rule for obtaining a winner (when necessary) by shooting a "golden goal" in the third extratime period has been changed; shooting penalty shots are being used instead.


Picture 11 Preparing to shoot outside the 5 m zone (a detail from European Championship in Belgrade 2006) (22)

## (I nstead of) Conclusion

Even in so many different ways, the following factors had a strong influence onto the development of the game: Water polo competition rulebook - accepting unified rules and its change during several development periods; Technical changes- modern technical equipment, precise time-measuring systems, using video equipment, enhancing the quality of sport team spirit;

Commercialization and introduction of mass media, meaning proportionally bigger profit. Factors mentioned have a great deal of influence on the competition character within a sport duel and therefore influence greatly the tactical doctrine on the long run. In order to make this interpretation more comprehensible, we should point out that mentioned periods possess more or less inner
variability (based on which many authors differentiate a much greater number of game development periods), which stands out in dominating different offense and defence game styles through out the years. There is a series of changes within every period which final purpose is to equalise the competition rules with real situations.

## References

1. FINA (2005). Pravila vaterpolo igre. Beograd: Vaterpolo savez Srbije i Crne Gore.
2. Kapus, V., Štrumbelj, B., Kapus, J., Jurak, G., Šajber-Pincolič, D., Vute, R., Bednarik, J., Kapus, M., \& Čermak, V. (2002). Plavanje, učenje. Ljubljana: Fakulteta za šport, Institut za šport.
3. Madić, D., Okičić, T., \& Aleksandrović, M. (2007). Plivanje. Niš: SIA.
4. Vuković, S., \& Trivun, M. (2003). Plivanje. Banja Luka: Fakultet fizičkog vaspitanja i sporta Univerziteta u Banja Luci.
5. Donev, J. (2006). Vъznikvane i razprostranenie na igrata vodna topka 1869-1930g. Sport i nauka, 2, 124-131.
6. Živanović, N. (2000). Prilog epistemologiji fizičke kulture. Niš: Panoptikum.
7. Zahorjević, A. (1991). Plivanje kroz vekove. Novi Sad: Fakultet fizičke kulture.
8. Madić, D., Okičić, T., \& Aleksandrović, M. (2007). Plivanje. Niš: SIA.
9. Mišković, S. (2001). Igra beka i centra. U, Zbornik predavanja Jugoslovenske vaterpolo škole Trifun Ćirković - Miro (pp. 143-145). Kotor: Vaterpolo savez Jugoslavije.
10. Pivač, M. (1998). Plivanje. Niš: SIA.
11. Popovski, D. (1988). Sportovite vo voda. Skopje: Univerzitet Sv. Kiril i Metodij.
12. Popovski, D., Meškovska, N., Grujoski, Ž., Popovski, A., \& Miladinovski, A. (2005). Vaterpolo - osnovi na tehnikata i metodika. Skopje: Škiper.
13. Popovski, D., Meškovska, N., Grujski, Ž., Popovski, A., \& Miladinovski, A. (2005). Plivanje osnovi na tehnikata, taktikata i podgotovka. Skopje: Škiper.
14. Snyder, P. (2008). Water polo for players and teahchers of aquatics. Los Angeles: LA 84 Foundation.
15. Smith, K.H. (1998). Applied Physiology of Water Polo. Sports Medicine, 26 (5), 317-334.
16. Šteler, (1981). Vodnoepolo. Moskva: Fiskultura i sport.
17. Štirn, I. (2005). Bodo spremembe pravil pozitivno vplivale na razvoj vaterpola. Šport, 53 (2), 21-26.
18. http://www.crowaterpolo.com/content/section/ 19/63/
19. http://en.wikipedia.org/wiki/History_of_water_polo (picture 3)
20. http://www.fina.org (picture 8)
21. http://history.nlwaterpolo.nl/index.php?id=29\&pid=4 (picture 2)
22. http://www.hvs.hr/index.php?option=com_content\&view=article\&id=45\&l temid=29
23. http://www.lenweb.org/main.php (picture 8, 11)
24. http://www.olympic.org/uk/sports/programme/disciplines_uk.asp?DiscCode=WP
25. http://www.sundevilwaterpolo.org/training.html (picture 10)
26. http://swimming.about.com/od/waterpoloolympics/ss/polo_history_wa_3.htm (picture 5)
27. http://www.vilacom.net/ waterpolo/
28. http://www.vsb.org.yu
29. http://usawaterpolo.org/index.php?customernumber=11174795495255\&pr=Didyouknow
30. http://www.1911encyclopedia.org/Water_Polo
31. http://waterpoloideas.blogspot.com/2007_06_01_archive.html (picture 1, 6, 7, 9)

## HI STORIJ A PROMJ ENA PRAVI LA U VATERPOLU


#### Abstract

Sažetak Moderni vaterpolo ima malo sličnosti sa izvornom igrom koja se pojavila u Engleskoj. U toku historije, više od stoljeća, gotovo je svaki aspekt ovog sporta promijenjen. Promjena trajanja i broj perioda (četvrtina), broj igrača u timu, vrijeme napada i isključenja, kao i mnogi drugi aspekti postepeno su doveli do toga da moderni vaterpolo bude potpuno drugačiji u odnosu na početke. Značajne promjene pravila su imale značajan uticaj na opću pripremu igrača. Evolucija vaterpolo igre je veoma dug proces koji se odvija i danas. Glavni cilj rada je hronološka sistematizacija glavnih promjena u historiji vaterpolo igre.


Ključne riječi: vaterpolo, historija, pravila igre

Received: August, 15. 2008.
Accepted: December, 10. 2008.
Correspondence to:
Assoc. Prof. Yordan Donev, Ph.D.
Faculty of Sport and Kinesiterapy
National Sports Academy
Studentski grad, 1700 Sofia, Bulgaria
Phone: +3592 898776687
E-mail: donevy@yahoo.com

