

THE BALANCE BEAM AS AN ARTISTIC GYMNASTICS APPARATUS FOR WOMEN: FROM THE ORIGIN TO ITS CONSOLIDATION

Mauricio Santos Oliveira¹, Anna Stella Silva de Souza¹, Andrize Ramires Costa², Myrian Nunomura³

¹ Federal University of Espírito Santo, Vitória, Brazil

² Federal University of Santa Catarina, Florianópolis, Brazil

³ University of São Paulo, São Paulo, Brazil



Original article

DOI: 10.52165/sgj.15.2.269-284

Abstract

This article seeks to increase understanding of the historical development of artistic gymnastics, particularly women's participation in the sport. Through historical research, we analyzed the genesis and inclusion of the balance beam apparatus as a core component of this gymnastics discipline. The period under study ranged from the 1896 Olympic Games to the years between 1952 and 1964, which are known for the stabilization of the competitive characteristics of women's artistic gymnastics. We observed that, in the beginning, as in sport in general, women were excluded from this cultural experience. However, throughout history, we observed that the balance beam became a protagonist of artistic gymnastics, becoming a stage for both reinforcing and confronting what women could and could not do in this gymnastics discipline.

Keywords: Women, gymnastics, sport history.

PRELUDE

Modern sport emerged in an exclusively male context. Eitzen (2009) mentions that, due to these historical roots, men have been encouraged to engage in the sport universe from an early age. However, women were denied access to sports during the renaissance (Vogler & Schwartz, 1993), and they still fight for gender equality today.

It's important to emphasize that when women entered sports, they were

encouraged to avoid those disciplines that did not promote the image of femininity. Simões, Conceição and Nery (2004) recall that gymnastics was also part of an exclusively male domain. And, as in other sports, women were excluded from gymnastics' social, cultural and political experience under eugenic allegations. The admiration of strength, disciplined bodies, physical training, and athletic beauty was attributed to men's universe, as if they were

naturally prone to have these characteristics (Schpun, 1998)

In this vein, the core of German Gymnastics Movement in the beginning of the 19th century, both girls and women were not granted access to gymnastics as proposed by Friedrich Ludwig Jahn at the Hasenheide in Berlin (Pfister, 2000). In this place, under large pine trees and surrounded by bushes, Jahn built a gymnastics camp in 1811, with large apparatuses that formed the basis of the modern artistic gymnastics. Publio (2005) credits Jahn with spreading gymnastics apparatuses around the world.

It is important to highlight that, in this initial period of German gymnastics, women were restricted to the role of spectators. According to Pfister (1999), the emphasis given by the “father of German gymnastics”¹ to military preparation and his patriotic goals kept women away from the open air area designed for gymnastics activities, the *turnplatz*. Besides these factors, the author alludes that Jahn’s proposed activities were considered unsuitable for the “fragile sex”.

Despite this stigmatized perspective of weakness and fragility, women gradually gained their place in gymnastics. But, they were restricted to a form of gymnastics that only promoted exercises aimed at the preservation of decency and femininity.

Around 1850, Huguenin (1981) cites that the number of gymnastic societies which contemplated women increased and kept growing until the end of the 19th century. The gymnastics festivals and, also, the work of gymnastics educators who promoted gymnastics for women were

essential in this process of inclusion (Huguenin, 1981).

From Hagelin's work (1995), we learn that Phokion Heinrich Clias, Adolf Spiess and Johann Adolf Ludwig Werner were some of the educators who contributed to this movement. We highlight that in Spiess' work, in 1834, boys had gymnastics classes from a very young age at the Burgdorf School in Switzerland, which was led by the reformer and creator of the kindergarten Friedrich Froebel. In this environment, Hagelin (1995) suggests, it did not take long for the girls to be included due to their interests. Hence, “special classes were formed and suitable exercises devised to meet their needs” (p. 156).

During the 19th century, women gained gradual access to gymnastics. However, gymnastics for girls was guided by societal values, so gender bias influenced the exercises. Pfister (1999) alludes, for example, to the care that teachers should take with women by limiting the students' movements to protect decency.

Eitzen (2009) remarks that the society expected women to nurture characteristics, such as kindness, amiability and passivity, which explains why women were guided toward sports that emphasized femininity. Pfister (2000) adds that “women were not allowed to compete in those sports that involved visible exertion, physical strength or bodily contact” (p. 4). Also according to the author, the femininity of women athletes was something that should be protected “as far as possible” (Pfister, 2000, p. 5). Thus, women had access to sports as long as they did not lose their grace, delicacy and

¹ We opted to put the expression “father of German gymnastics” in quotes, because although this expression is present in the literature about German gymnastics, recent historical studies have questioned

and avoided the use of this expression, mainly because it reinforces an individual and personalized interpretation of historical events.

beauty, which are still characteristics linked to the supposed feminine essence (Goellner, 2007).

Towards the end of the 19th century, women gradually found their space in gymnastics. However, it took a long time for female athletes to be accepted in the competitions. This happened in 1928, at Amsterdam Olympic Games, when the first international competition for women in artistic gymnastics was held (Huguenin, 1981; Pfister, 2000).

In this period, sports for women were guided by physical and psychological concerns which were perceived as natural and distinct between men and women (Pfister, 2000). Furthermore, women sports maintained the premise that the important thing was to prepare girls and women for their future roles in society as mothers, wives, and worthy citizens.

Pfister (2000) claims that "enjoyment of sport and team spirit were considered more important than personal performance and achievement" (p. 8), a stance that helps us to understand why women would not compete in artistic gymnastics individual events until 1952. Goehler (1978) suggests that including individual events in the early period of women's artistic gymnastics (WAG) competitions was too daring for the time.

When analyzing the 1950s, we observe that this decade is pivotal for the WAG, as it led to the incorporation of individual competitions, and the competitive format restricted to the four apparatuses (vault, uneven bars, balance beam and floor) came into force (Huguenin, 1981). Previously, women team competitions included athletics events (long jump, 60 meters race, javelin throw) as well as gymnastics apparatuses: vault, rings, symmetrical and asymmetrical parallel bars, balance beam,

team free exercises and team exercises with hand apparatuses.

Even within this range of events in WAG team competition at that time, the balance beam was a part of it. It was also present in the genesis of the German Gymnastics Movement back at the end of the 18th century (Herholz, 2020). In 1952, this apparatus was consolidated as an individual event of artistic gymnastics for women (Huguenin, 1981). But, it is important to highlight that this apparatus was initially systematized for men.

Searching for a better understanding of the origins and consolidation of balance beam in artistic gymnastics, this study aimed to analyze the historical course of this gymnastics event over time, seeking for elements that will help us understand why this gymnastics apparatus was included in women AG competitions.

The research initially spanned from the first Olympic Games, in 1896, to the period of 1952-1964, which is characterized by the stabilization of competitive nature of WAG. According to Kerr (2003), during Helsinki Olympic Games, in 1952, the competitive program included the four apparatuses (floor, balance beam, vault, and uneven bars) in individual events, all around and team competition. Moreover, we believe that the International Gymnastics Federation (FIG) considers the period from 1952 to 1964 as the period that marked the entry of gymnastics into the modern era (Huguenin, 1981). Despite this historical delimitation, started at the emergence of the modern Olympic Games, our study used complementary sources that go further back into the past, such as the recognized work "Gymnastik für die Jugend" of 1793 (Guts Muths, 1793).

DRAWING OUT THE HISTORICAL SOURCES APPROACH

We consider that when studying history, specifically related to sport, the objectives include the following: to provide a broader perspective about the phenomenon under study, and, also, to make us more aware of the development of the cultural element under consideration.

Luca (2021) suggests that "thanks to the traces and indications that have reached the present researchers can propose explanations about what happened" (p. 8). According to the author, any event from the past has the potential to be revisited, inspiring and resulting in new researches. We know that historical knowledge is dynamic, which allows each generation to reread, reinterpret, and rewrite the past.

In this regard, based on the potential presented in this study, we chose the methodological path of historical research that, according to Richardson (1999), can be oriented to the production of new knowledge through the elaboration of new ways of understanding certain phenomena of the past, as well as shedding light on new perspectives of how these phenomena have developed.

Additionally, Isaac and Michael (1981, p. 44) claim that the purpose of historical research is to revisit the past by "collecting, evaluating, verifying, and synthesizing evidence to establish facts and reach defensible conclusions, often in relation to particular hypotheses". We can see that this methodological approach is concerned with understanding facts that occurred in the past in an attempt to extract general principles that can guide society in

the present and in the future (Gressler, 2003).

We consider that this method of research allows us to interpret with a certain degree of depth the existing social structures, which should not be restricted by and thought of according to the criteria of norms or rules in force in today's society. Gressler (2003) states that historical research "contributes to the knowledge of the present in the light of past events" (p. 50). And, it allows reflections and verifications of ruptures and permanencies that were established in the course of history.

Barros (2019) points out that, in order to understand the core of history, we must analyze elements of the past in order to properly interpret its social aspects. It is worth mentioning that "these vestiges, evidences, written texts, and material objects—capable of manifesting continuities between the two temporalities in the most diverse forms—are the so-called "historical sources" (Barros, 2019, p. 8). In other words, they are the "marks of history" (p. 15), which can be simple or complex, and can range from textual documents to archaeological remains and pictorial representations to material culture sources. However, we must not forget that in contemporary times, historical sources can also be found in virtual environments.

For the purposes of our study, we consulted gymnastics programs, guidelines and reports of each edition of Olympic Games that were available at the World Olympic Library and also at the LA84 Foundation.

Table 1

List of consulted documents that were obtained from the World Olympic Library and from LA84 Foundation.

EDITION	PROGRAM	OLYMPIC REPORT
1896	x	x
1900	x	x
1904		x
1908	x	x
1912	x	x
1920	x	x
1924	x	x
1928	x	x
1936	x	x
1948	x	x
1952	x	x
1956	x	x
1960	x	x
1964	x	x

In addition, we examined the pioneering magazines in the field of gymnastics, namely: *The Modern Gymnast* and *Mademoiselle Gymnast*. They were released in 1956 and 1963, respectively, and were combined into *Gymnast* magazine, which included both men's and WAG. Currently, the magazine is called *International Gymnast*, a change that occurred in 1972. It is worth mentioning that the magazines from the period of analysis are available in the researchers' collection and some copies can be accessed on the USA Gymnastics online library.

We corroborate Luca (2021) that "the paths that lead from an area to the theme and from this to the object presuppose the reading and the mastery of specific biography" (p. 84). Our study included extensive bibliographic research in the researchers' personal collections and on the Open Library managed by the Internet Archive. Furthermore, we consulted the Periodical Portal of Coordination for the Improvement of Higher Education Personnel (CAPES) in Brazil which

provides access to the national and global scientific literature in different databases.

Many of these secondary sources were published in different historical periods, from 1793 to 1964. However, they all converge in portraying historical moments of WAG that supported the development of the research, filling in its gaps. They are not direct materials for the study's theme, such as the documents obtained from the World Olympic Library and from LA84 Foundation. Instead, they are works written by other authors who have reflected on the same theme we are studying, or that contain important data to support our study (Barros, 2015).

In addition to the primary sources, we also conducted bibliographical research, also known as secondary research (Godoy, 1995). We selected, classified, and archived topics of interest to the study that were published, such as: printed documents, scientific articles, books, master's degrees and doctoral theses. This approach allowed us to obtain information that clarified the primary documents, as well as helped us

contextualize the path of women in artistic gymnastics.

The sources obtained and mobilized in the development of this research consisted of choices that supported the text's argumentation and had traces of the past that needed to be purified. In the conception of Le Goff (2013), these traces remain mute and encapsulate a signal that can be decoded and interpreted. However, as Luca (2021) warns, they are not definitive, since they are articulated in the moment and by the individuals that manipulate them. In this a way, we went through gymnastics literature in search of vestiges of the past. We did not discard what has already been made, but we tried to join and consider what has been produced in search of generating an understanding about the phenomenon

FROM THE GERMAN FIELDS TO THE SPORTS STAGES

Herholz (2020) claims that the first balance beam appeared in the period of German gymnastic systematization in Johann Christoph Friedrich Guts-Muths' work. According to the author, Guts-Muths dedicated a chapter of his book "Gymnastics for Youth" to balance training through the use of this device. The balance beam that Guts-Muths used for exercises (Figure 1) was a pine trunk, round in shape, placed horizontally and about 20 meters long.



Figure 1.

Gymnasts exercising on the balance beam. Photo from the first edition of Guts Muths' book "Gymnastik für die Jugend" (1793).

Note. Adapted from Guts-Muths (1793, p. 400).

According to Tonry and Tonry (1980), this apparatus was later adapted by Friedrich Ludwig Jahn in 1811, who renamed it "*Schwebebaum*" (Herholz, 2020), balance tree. Kaiamakamis et al. (2009) note that in Jahn's book entitled *Die Deutsche Turnkunst*, published in 1816 with the assistance of his student and collaborator Ernst Eiselen, four pages were dedicated to the balance beam and its exercises, which can be taken as an indication of the importance assigned to balance and this apparatus by the "father of German gymnastics" (*turnvater*).

Herholz (2020) observes that the length of balance beam in Jahn's gymnastics camp was 12 meters with a diameter of approximately 25cm. Also, according to the author, the wooden log used by Jahn was made of resinous smooth pine. The log was screwed between pairs of wooden posts (Figure 2), which could be arranged at different heights

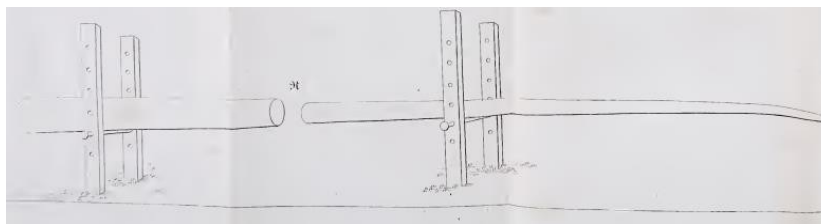


Figure 2. Balance beam, *Schwebebaum*, in *Die Deutsche Turnkunst zur Einrichtung der Turnplätze*. Source: Jahn and Eiselen (1816).

In his book, Jahn described that the apparatus should be neither stable nor unstable, as it was used to refine balance during movement (Herholz, 2020; Kaimakamis et al., 2009). According to Kaimakamis et al. (2009), Jahn suggested that the exercises performed on balance beam should first be learned on floor for safety reasons. Jahn also made suggestions about the body and head positions, the gaze direction, and the feet placement when walking on the balance beam. Similar features can be found in current works that teach how to exercise on this apparatus.

During this period, women gymnastics was of no concern, mainly due to the emphasis on military preparation and the nationalistic goals related to the unification of Germany. It was up to women to gain their space with the support of educators and followers of the German Gymnastics Movement, started by Guts Muths and Jahn, such as: Phokion Heinrich Clias, Adolf Spiess and Johann Adolf Ludwig Werner (Hagelin, 1995), who also used the balance beam in their gymnastic activities.

While the initial use of this apparatus was attributed to Guts Muths and Jahn in the middle of the 19th century, Takemoto and Hamada (1958) claim that it was Adolph Spiess who first conceived the use of balance beam for women at a public school in Basel (Figures 3 and 4). The authors refer

to the Spiess' book, published in 1846, which has engravings of girls on this apparatus. But Takemoto and Hamada (1958) also mention that our ancestors used structures that challenge balance long before, either in the a form of entertainment or as children's play.



Figure 3 and 4.
Gymnastic activities with female participation in Adolf Spiess' work.
Note. Adapted from Spiess (1847).

We note that Pehr Henrik Ling, the predecessor of the Swedish Gymnastics movement, also introduced the balance

beam in his work. Hagelin (1995) mentions the Dane Franz Nachteggall's influence on Ling's career, since the Swede attended his private gymnastic institute in Denmark, the first in Europe, which was greatly influenced by Guts Muths' work that already used the balance beam in Germany.

Herholz (2020) cites that the balance beam was called "balansribba" in Sweden, and that the exercises used to promote balance were also performed on the Swedish bench, an adaptation used until nowadays. Herholz (2020) adds that exercises on the balance beam were part of the daily routine in Swedish gymnastics method, mainly due to the versatility of this apparatus that facilitated the training of other physical skills in addition to balance.

Swedish Gymnastics Movement also supported women inclusion, and the use of balance beam as an apparatus. In Pfister's words (1999), "although Ling envisioned his program as solely for men and boys, Swedish gymnastics eventually became the seedbed of women's physical education" (p. 444). Mostly, because "it was hoped that "Swedish gymnastics" would provide inexpensive rational discipline without militaristic associations. The ideal was "noncompetitive physical development without sacrificing femininity" (p. 445).

It is worth mentioning that Anton Santesson is considered the first to foster gymnastics for women in Sweden. Among his published works in the 1850s and 1860s, the book "Gymnastics for Young Women and Girls in Schools" of 1866 influenced other nations to include women in gymnastics (Westberg, 2018). In Santesson's conception, "gymnastics fostered strong women, who would give

birth to strong sons. Moreover, women would, thanks to gymnastics, be able to provide their sons with correct clothing, food, and physical education" (p. 266).

In Sweden, the balance beam was instituted for women on the principle that it would promote civility and grace, as guided by Santesson in his work released in 1866 (Westberg, 2018). This was a vision that, according to Westberg (2018), contrasted with men's training that advocated the development of courage and intelligence.

The above mentioned principles guided women's performances in the period when gymnastic festivals of the 19th century emerged and women used the balance beam in team exhibitions. However, we observe that at the time of the first German championship with women participation, in 1921, this apparatus was not in the program. It was an absence that lasted until 1934, when the first World Championship was held with women participation (Herholz, 2020).

The balance beam was introduced at the World Championship program with only 8 cm width (Herholz, 2020). As a highlight of this competition, the Hungarian gymnast Gaki Meszaros won the audience's admiration by performing a split on the beam. It surprised everyone as she was the first to perform it at an event of this nature (Huguenin, 1981; Gutman, 1996; Herholz, 2020; Porter, 2004).

Later, in the second Olympic Games with women participation in 1936 (HUGUENIN, 1981), gymnasts used the balance beam in the team competition. It was something that also occurred in London, in 1948, when the Olympic Games returned after the Second World War. The apparatus was approximately 5 meters long, 10cm wide and 1.20m high

(The Organising Committee for the Xiv Olympiad, 1948). Goodbody (1982) mentions that the artistic gymnastics competition in London was supposed to have taken place at Wembley Stadium, but due to the storm it was held indoor for the first time.

Still at the 1948 Olympic Games, the competition regulations stated that free exercises on the balance beam should include 4 or 5 difficulty elements, and any use of force in exercise was undesirable. The preference should be for dynamic movements (The Organising Committee for the Xiv Olympiad, 1948).

This quest to distance women from the strength component of exercises was not only related to biological aspects, but also to social and psychological ones. It was grounded in a stigmatized view of women. Thus, gymnasts had to comply with feminine stereotypes which, according to Simões, Conceição, and Nery (2004), have "negative connotations, such as fragility, sweetness, vanity, and shyness" (p. 64). The exhibition of strength elements would contradict this vision of woman in the society.

The routines were limited to rolls, poses, and simple dance movements. More dynamic movements were only possible with changes in the balance beam design. Porter (2004) cites that "women gymnasts wanted firmer footing and safer conditions to perform dazzling moves on the beam, and the rule-makers agreed." (p. 8). Thus, the width of the balance beam was ratified at 10cm and there were no more competitions with 8 cm width as previously observed.

In this period, due to its characteristics, Takemoto and Hamada (1958) point out that this apparatus became one of the symbols of WAG.

Especially in the 1950s when the Union of Soviet Socialist Republics' entrance in this sport with an artistic style that showed influences of *ballet*. We observed previously that this apparatus was a beam for balance, with little risk and low complexity elements. This was mainly due to the idea that it should maintain and develop a style of gymnastics aligned with the "limitations" of women's bodies, in line with the societal biases back then, as well as reduce risk and restrict the use of force (Prestidge, 1979).

All these limitations indicate that women had access to competitive artistic gymnastics, but the patriarchal society resisted their presence by limiting what they could or could not do on the apparatus. There was a concern that women would be stripped of their feminine qualities if they went in the direction of men's sport that could masculinize them (Simões, Conceição, & Nery, 2004). Simões (2004, p. 30) also reflects that "the feminine tendency to gain social projection always had an uncomfortable alliance with the masculine sense within the sport context as a social reality", which leads us to wonder whether there men were afraid to share the spotlight and the apparatus with women gymnasts.

In 1952, at the Helsinki Olympic Games, the competition program started to include women's individual competitions in the four apparatuses: floor, vault, balance beam and uneven bars (Huguenin, 1981). We point out that these changes had been decided at the 28th FIG Congress held in Stockholm in 1949.

In Finland, the balance beam rules specified that exercises should last between 1 minute 30 seconds and 2 minutes, the gymnast had to use the

surface 5 meters long set at the height of 1.20 meters. And the routine should not:

'be carried out at too slow and monotonous rhythm, but must be full of life and make use of the entire body. The exercise must include sitting and lying positions, steps and running, jumping, turning, with some confirmed positions, without in any way allowing these latter to predominate over the other movements.' (Organising Committee for the Olympic Games Helsinki, 1952, p. 51)

Four years later, at the Melbourne Olympic Games, the artistic component of this gymnastics discipline increased as stated in the report of this Olympic edition (Organising Committee for the Olympic Games Melbourne, 1956). The olympic champion on the balance beam was Agnes Keleti from Hungary, who was 35 years old at the time: "The fact that years of practice are required to attain perfection and control in advanced gymnastics, was amply demonstrated by the beauty of movement reached in maturity by Agnes Keleti" (Organising Committee for the Olympic Games Melbourne, 1956, p. 476).

Nunomura (2008) reports that the 1956 balance beam champion, Agnes Keleti, became the first heroine of WAG, and also became an icon of longevity among gymnasts. At this same competition the first cartwheel was performed on the balance beam, a feat accomplished by Eva Bosáková from the Czech Republic, former Czechoslovakia. This element can be understood as the first example of pre-acrobatic skills in this gymnastics event. Nowadays, this element would be named after her in the Code of Points.

In the early 1960s, the balance beam underwent some modifications. This apparatus continued to be made of solid wood and, as Oliveira (2014) states, it had its sides curved. This change was introduced in the rules of 1960 Olympic

Games in Rome (Organising Committee for the Olympic Games Rome, 1960). Hence, following the prescribed measures of height (1.20 meters), length (5 meters) and width of the top surface of the apparatus (10 cm), the rules also included specifications related to the balance beam body, which should be rounded and 13 cm wide at the widest point.

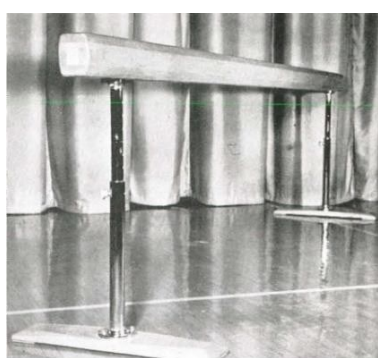
In Italy, the balance beam champion was Eva Bosáková, the first great icon of WAG in Czechoslovakia (Czech Republic). Goodbody (1982) cites that Eva Bosáková represented the best of Czech gymnastics in that period. Due to her success, she had an opportunity to invite girls to participate in the sport in a television appearance. One of the young Czechoslovakian (Czech) spectators was Vera Caslavská, who later became the next Olympic balance beam champion in 1964.

Simons (1995) believes that Caslavská was a milestone in WAG that started a new era. In this period, the routines acquired a more dynamic and acrobatic structure. According to Haycock (1991), Vera Caslavská's style and personality impacted greatly the sport around the world, and she certainly was a major contributor to the popularization of the WAG. Oliveira (2014) mentions that Caslavská was a woman with adult-like features, just like Eva Bosáková, an aspect that contrasts with the childish appearance of gymnasts who dominated the sport from the 1970s onward.

The balance beam apparatus on which Vera Caslavská became an Olympic champion in 1964 by performing bridges, jumps, choreographic movements, balances, spins, and the cartwheel back layout dismount, was ruled by the same specifications as stipulated by the 1960 XVII Olympiad Games Organizing

Committee (Comite D'organisation des Jeux de la XVIII Olympiade, 1963). This demonstrates stability in the morphological aspects of balance beam through these Olympic cycles.

The Louis Perschke Company, in its advertisement (Figure 5) published in *The Modern Gymnast* (1963), provided some specifications of the their beam, such as: its height could be adjusted from 91 cm to 1.20 cm, an aspect that facilitated initiation and training; its length was 5 meters; with a walking surface of 10 cm wide, and its sides were rounded. The company claims that all these measurements were in accordance with the Olympic specifications.



Balance Beam

Here's a wonderful beam for the girls' gymnasium. Easily adjusted from 36" to 48", it conforms to Olympic specifications. 16'5" long with a 4" walking surface and oval sides. Supports are made of bright chromed extra heavy tube. Non-marking base pads and hold down chain ensure stability. Easily disassembled with an adjustable wrench. Light weight (150 lbs.). New Dimension Price \$253

Figure 5.

Louis Perschke advertisement.

Note. Adapted from *The Modern Gymnast* (1963).

Although there was a tendency for this apparatus to develop in the direction of pre-acrobatic elements, which were displayed in free exercises during the 1964 Olympics, we found that at these games, the focus of the compulsory routine remained on the body and dance elements, such as:

displacements, waves, spins, rolls, balances, and jumps (Figure 6).

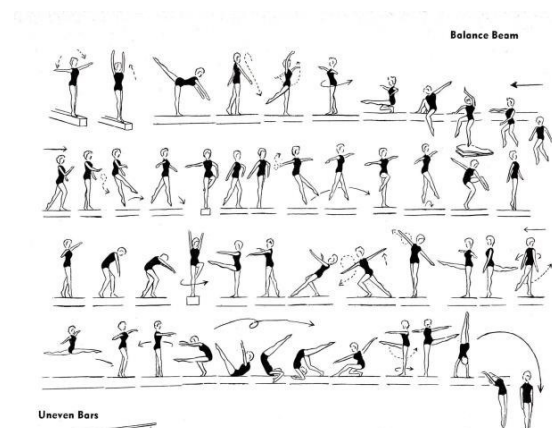


Figure 6.

1964 Olympics compulsory routine.

Note. Adapted from *Modern Gymnast* (1963).

Takemoto and Hamada (1958) suggest a few reasons for this decision to limit the development of this apparatus through compulsory exercises. The authors exemplify that in Germany there was thinking that flips, handsprings, and excessive flexibility could be harmful to women in physical and psychological ways. But, Takemoto and Hamada (1958) claim that there was no evidence of such harm, either from the medical profession or from the German Gymnastics Federation. It was a view that was not shared by the Union of Soviet Socialist Republics, since scientists in that country considered WAG harmless (Takemoto & Hamada, 1958).

In addition to this way of thinking about female's athlete body and her place in society, we notice that the balance beam itself did not support the development of acrobatic performance at the time. This equipment was made of a polished laminated wood that did not provide firmness to the feet during execution of acrobatic elements, and it was at a height

of 1.20 meters, which was high enough to cause fear. It is important to mention that mats, back then, were not made with the technology that we have today. Thus, the purpose of this apparatus was restricted to demonstrating balance on a narrow structure with charm and elegance (Kerr, 2003). However, if the world saw the first cartwheel on the balance beam at the 1956 Olympic Games, in 1962 this element was already combined by Vera Caslavskaja with back straight layout at dismount. This dictated changes in the following years to meet the pace of development imposed by the athletes.

One of the icons of this development process in WAG was Erika Zuchold of East Germany who performed the flick on balance beam 1964. Unfortunately, due to a calcaneal tendon injury, the gymnast did not participate at the 1964 Olympic Games (Friedrich, 1970). This daring to perform an acrobatic element on beam, defying gravity, may signal that these women wanted to innovate. In Erika Zuchold's case, at certain moments, the inspiration came from the men's sector that already had a list of acrobatic elements presented in competitions. This shows that women were willing to cross the imposed limits. The impact of the athletes such as Caslavskaja and Zuchold compelled the International Gymnastics Federation to create space for the evolution of women in this apparatus and in artistic gymnastics as a whole.

AS A FINAL NOTE

“A horse sweats, a man perspires, but a lady only glows” (Jokl, 1981, p. XI). This Victorian period statement helps us understand the thinking that guided attitudes towards physical exercise and sports for women at that time. The author

mentions that sports as a phenomenon reflects the society which, according to Simões (2003), has a social dimension that merges cultural, moral, economic, political and ideological values. In this regard, as in other areas conducted and dominated by men, women were restricted and even excluded from participation.

Coackey (2017) says that sport was a place to establish and prove the dominance of heterosexual masculinity. And, according to Bourdieu (2001), the principle of social changes lies in the actions of individuals, represented in this context by women, who seek to subvert the order that imposes the dominant sense.

Guttmann (1978) remembers that the first place for women to practice gymnastics was built in 1832. And, in the competitive scene, the first international competition took place in 1928 in Amsterdam. At this historical landmark, female athletes were guided to perform elements that were aligned with the behavior of passivity and submission. There was a concern that dictated that the female gymnasts remain close to their functions in society, in other words, to their natural destiny: marriage and procreation.

The balance beam, an apparatus introduced by great systematizers of German Gymnastics Movement, back then a predominantly male practice, was incorporated into the women's competitive program in 1934 at the World Championship in Hungary. It was aligned with the social expectations for female gender: posture, grace, lightness, elegance, and femininity. It is important to remark that in these first competitions, the gymnasts performed on this apparatus only in the team event, that is, there were no individual competitions. Thus, the

competitive aspect was further softened by the team work: it required unity for the sake of victory and did not expose the women individually.

The balance beam competitions included individual competitions in 1952, but kept the characteristics linked to the stereotype of women in society. However, we agree with Guttmann (1981) that the conquests of women in society and their athletic achievements opened up possibilities for women to seek their own space in sports and, in the case of this study, in artistic gymnastics.

If initially *ballet* was the *primary objective* on the balance beam with movements of low risk and low complexity elements, pre-acrobatic elements started to be executed on this apparatus in the period analyzed in this study, which culminated in cartwheels, walkovers and combinations of elements (e.g., cartwheel followed by back layout at dismount).

The balance beam became a protagonist of WAG by highlighting their potential in the development of acrobatic and dance elements, combining grace and power. It led to the need to change the rules and also the apparatus construction in the following years, which is outside the scope of this paper.

Sport is a human activity. It is not more suitable for men than for women. However, it is important to note that sport differs from culture to culture. Nowadays, there are nations which oppose women participation in sports. There are also countries that support their women to engage in sports and compete in the Olympic Games.

We do not seek to discuss equality between men and women in artistic gymnastics. As Chantal Mouffe (1999)

states, the dilemma of equality versus difference is false, to the extent that we no longer have a 'homogeneous woman entity' confronted with a 'homogeneous male entity', but a multiplicity of social actions in which sexual difference is constructed in various ways. Thus, we consider that the issue of difference is one of the only paths to equality.

It is important to mention that this paper authors hope that its impact will be attractive equally to women and men interested in the scientific assessment of women and sport, as well as to many practitioners who diligently work for the public acceptance and development of sport for all women.

ACKNOWLEDGMENTS

The study was supported by Research Foundation of the State of Espírito Santo – FAPES.

REFERENCES

- Andrade, M. M. (2018). *Introdução à metodologia do trabalho científico* [Introduction to scientific work methodology] (10th ed). São Paulo: Atlas.
- Bourdieu, P. (2001). *Masculine Domination*. Stanford, CA: Stanford University Press.
- Coackey, J. (2017). *Sports in society: issues and controversies*. 12th ed. New York: McGraw-Hill.
- Eitzen, S. (2009). Sport and gender. In Eitzen, S. *Sport in contemporary society: an anthology* (8th ed., pp. 313-318). Boulder: Paradig.
- Friedrich, K. H. (1970). Flip-flap on the 4-inch bema: Erika Zuchold – senior women's gymnast of the GDR. *Mademoiselle Gymnast*, 5(2), 22-23.

Godoy, A. S. (1995). Pesquisa qualitativa: tipos fundamentais [Qualitative research: fundamental type]. *Revista de Administração de Empresas*, 35(3), 20-29.

Goehler, J. (1978). Highlights of women's olympic gymnastics. In Straus, H. (ed.). *Gymnastics guide* (pp. 16-19). Mountain View: World Publications.

Goellner, S. V. (2007). Feminismos, mulheres e esportes: questões epistemológicas sobre o fazer historiográfico [Feminisms, women and sports: epistemological questions about historiographic making]. *Movimento*, 13(2), 171-196.

Goodbody, J. (1982). *The illustrated history of gymnastics*. London: Stanley Pou & Co.

Gressler, L. A. (2003). *Introdução à pesquisa: projetos e relatórios* [Introduction to research: projects and reports]. São Paulo: Loyola.

Gutman, D. (1996). *Gymnastics*. Penguin Books: London.

Guts Muths, J. C. F. (1793). *Gymnastik für die jugend: enthaltend eine praktische anweisung zu leibesübungen* [Gymnastics for youth: containing a practical instruction on physical exercises]. Schnepfenthal: Erziehungsanstalt.

Hagelin, O. (1995). *Kinetic jottings: rare and curious books in the library of the old Royal Central Institute of Gymnastics*. Estocolmo: Idrottshögskolan.

Haycock, K. (1991). *Gymnastics*. New York: Maxwell Macmillan International.

Herholz, E. (2020, January 22). *History of Gymnastics on Balance Beam*. GYMmedia International. http://www.gymmedia.com/ghent2001/appa/beam/history_be.htm

Huguenin, A. (1981). *100 years of the International Gymnastics Federation 1881-1981*. FIG: Moutier.

Isaac, S., & Michael, W. (1981). *Handbook in research and evaluation: a collection of principles, methods, and strategies useful in the planning, design, and evaluation of studies in education and the behavioral sciences* (2th ed.). San Diego: Edits.

Jahn, F. L., & Eiselen, E. (1816). *Die deutsche Turnkunst zur Einrichtung der Turnplätze* [The German gymnastics art for setting up the gymnastics arenas]. Berlin: Der Herausgeber.

Jokl, E. (1981). Preface. In Borms, J., Hebbelinck, M., & Venerando, A. (Ed.). *Women and sport: an historical, biological, physiological, and sports medical approach* (pp. XI-XIII). Basel: Karger.

Kaimakamis, B., Papadopoulos, P., Duka, S., Kaimakamis, D. (2009). Balance beam as a multiple purpose apparatus in gymastic systems and the great gymnasts of the first half of 19th century. *Studies in physical culture and tourism*, 16(3), 309-314.

Kerr, R. (2003). *The evolution of women's artistic gymnastics since 1952*. Master's thesis, University of Sydney, Sydney, Australia.

Minot, S. (1995). *Women's gymnastics: a history. Volume 1: 1966 to 1974*. Carmel: Welwyn Pub. Co.

Mouffe, C. (1999). Deliberative democracy or agonistic pluralism? *Social Research: An International Quarterly*, 66 (3), 745-758.

Nunomura, M. (2008). *Ginástica artística* [Artistic gymnastics]. São Paulo: Odisseus.

Oliveira, M. S. (2014). *A microcultura de um ginásio de treinamento de ginástica artística feminina de alto rendimento* [The training gym microculture of women's artistic gymnastics at high level sport]. Doctoral thesis, School of Physical

Education and Sport, University of São Paulo, São Paulo, Brazil.

Organising Committee for the XVth Olympic Games Helsinki 1952. (1952). *Gymnastics*. Helsinki: Organising Committee.

Pfister, G. (1999). Women's sports. In Levinson, D., & Christensen, K. (Ed.). *Encyclopedia of world sport: from ancient times to the present* (pp. 442-457). Oxford: Oxford Press.

Pfister, G. (2000). As mulheres e os jogos olímpicos: 1900-97 [Women and the Olympic Games]. In Drinkwater, B. L. (Ed.). *Mulheres no esporte* [Women in sport] (pp. 3-15). Rio de Janeiro: Guanabara Koogan.

Porter, D. (2004). *Winning gymnastics for girls*. Nova York: Mountain Lion.

Prestidge, J. (1979). *The love of gymnastics*. Londres: Octopus Books.

Publio, N. S. (2005). Origem da ginástica olímpica [Origin of Olympic gymnastics]. In Nunomura, M., & Nista-Piccoli, V. *Compreendendo a ginástica artística* [Understanding artistic gymnastics] (pp. 15-26). São Paulo: Phorte.

Richardson, R. J. (1999). *Pesquisa social: métodos e técnicas* [Social research: methods and techniques]. São Paulo: Atlas.

Sabo, D., & Messner, M. A. (1993). Whose body is this? Women's sports and sexual politics. In Cohen, G. (Ed.). *Women in sport: issues and controversies* (pp. 15-24). Newbury Park: Sage.

Schpun, M. R. (1998). Entre feminino e masculino: a identidade política de Carlota Pereira de Queiroz [Between feminine and masculine: the political identity of Carlota Pereira de Queiroz]. *Cadernos Pagu*, 12, 331-377.

Simões, A. C. (2004). O universo das mulheres nas práticas sociais e esportivas [The universe of women in social and sports

practices]. In Simões, A. C., & Knijnik, J. (Ed.). *O mundo psicossocial da mulher no esporte: comportamento, gênero e desempenho* [The psychosocial world of women in sport: behavior, gender and performance] (pp. 23-46). São Paulo: Aleph.

Simões, A. C., Conceição, P. F. M., & Nery, M. A. C. (2004). Mulher, esporte, sexo e hipocrisia. In Simões, A. C., & Knijnik, J. (Ed.). *O mundo psicossocial da mulher no esporte: comportamento, gênero e desempenho* [The psychosocial world of women in sport: behavior, gender and performance] (pp. 61-86). São Paulo: Aleph.

Takemoto, M., & Hamada, S. (1958). *Illustrated women's gymnastics*. Tokyo: Banyu Shuppan.

The Modern Gymnast. (1963). 1964 olympic compulsory stick figures for women. *The Modern Gymnast*, 5(3), 12-13.

The Organising Committee for the XIV Olympiad London. (1948). *General regulations and programme: gymnastics* (Vol. 12). Londres: The organising committee for the XIV Olympiad.

The Organizing Committee of the Games Of The XVII Olympiad. (1960). *The Official Report of the Organizing Committee* (Vol. 2). Roma: The Colombo Printing Establishment / The Rotografica Romana.

The Organizing Committee of the XVI Olympiad Melbourne. (1956). *General rules and special sports regulation: gymnastics* (Vol. 9). Melbourne: The Organizing Committee of the XVI Olympiad.

Tonry, D., Tonry, B. (1980). *Sport illustrated women's Gymnastics 2: the vaulting, balance beam, and uneven parallel bars events* (vol. 2). Lippincott e Crowell: New York.

Vogler, C., & Schwartz, S. (1993). *The sociology of sport: an introduction*. New Jersey: Prentice Hall.

Westberg, J. (2018). Adjusting Swedish gymnastics to the female nature: discrepancies in the gendering of girls' physical education in the mid-nineteenth century. *Espacio, Tiempo y Educación*, 5(1), 261-279.

Corresponding author:

Mauricio Santos Oliveira
Federal University of Espírito Santo
Centro de Educação Física e Desportos
Av. Fernando Ferrari, 514
Campus Universitário
Goiabeiras – Vitória – ES
CEP:29075810
e-mail: mauricio.s.oliveira@ufes.br

Article received: 15.6.2022

Article accepted: 20.2.2023