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# Current Aspects Regarding the Development of Choreographic Routine in High Performance Aerobic Gymnastics

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#### Abstract

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Having in perspective a general matrix of conceiving a piece of choreography, this paper explains a personal vision in composing the design of routines for the Romanian Aerobic Gymnastics Senior Team, starting with 2012 until today. This exploration process involves a logical sequence of phases, where several factors complement and reinforce one other: the FIG Code of Points, gymnast evaluation, competition characteristics, structure of choreographic composition, staging choreography and potential changes/improvements in the choreographic design. Staging choreography applies after the inventory of all these factors, here being included: choosing the music theme, selecting the technical difficulty elements, distribution of elements in the competition area, placing elements to the music, building interaction of step sequences and transitions with difficulty elements, and finally, developing and selecting constructions (Pairs, Trio, Group). The existence of the six competition events requires a various choreographic mapping, whose quality is perceived at both visual and kinaesthetic levels, in a particular manner for each of them. The effect of this vision in designing the gymnastics routines has led to a continuous enhancement of the artistic value, and also a new, refreshing choreographic style for the Romanian team, who was positively noticed and appreciated by specialists and judges at the world class competitions in the last four years.

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Keywords: Performance; aerobic gymnastics; choreography.

#### 1. Introduction

This paper is in line with the pursuits of the Team of Technicians within the National Senior Gymnastics Team, namely to innovate constantly the training strategy and to find resources for increasing performance, so that Romania remains among the top countries of the world also by refining the choreographic creation process.

This paper approaches aspects related to artistic training in aerobic gymnastics, based on the requirements for developing choreographies for gymnastic routines.



To discern the aspects relevant for the analysed topic, we will seek to list the data on choreographic movement components as they are presented in the literature of the last years and adapted to the requirements specific for aerobic gymnastics.

Reviewing the literature of the last years is revealing the idea that artistic training, by comparison to physical and technical training, is not as well represented, at least in terms of its volume. Studies on the choreographic concept or specificities of athletes' expressiveness are relatively few in number and lack pertinent information. Authors like Yilin and Xiaomei (2014), Zhang (2014), Viveros Manjarrez (2014) synthetically approach issues regarding the distribution of difficult technical elements in the composition, its positioning on the musical map and aspects related to the artistic criterion.

Comprehensive studies on the artistic training in gymnastics disciplines have been achieved by authors like Grigore (2001), Vişan (2005), Dragnea and Mate-Teodorescu (2002), Borissenko (2000), Plehanova (2006), Fenton (2011), whose complete vision enables a review of key-factors for performance, as a sports training component.

A major source of information for exploring new choreographic languages was represented by a series of recent papers in the field of dance, under all its forms: Anderson Sofras (2006), Cerny Minton (2007), Pomer (2009).

#### 2. Content and results

We describe below the phases of choreography development, according to our own vision, as a result of an experience of over 20 years in coaching and choreography:

- 1. Code of Points Regulations;
- 2. evaluation of gymnast or gymnasts in mixed events;
- 3. characteristics of specific competitions for which the choreography is developed;
- 4. structure of choreographic routine *choreography diagram*;
- 5. choreography;
- 6. changes and improvements of the choreography.

#### 2.1. Code of Points

To develop a piece of choreography, the first step is to know in detail the Code requirements for performance criteria and to capitalize them with the help of the human resource available. Figure 1 shows a diagram of the Code elements conditioning the development of exercise composition, presented according to our own chronological sequencing.

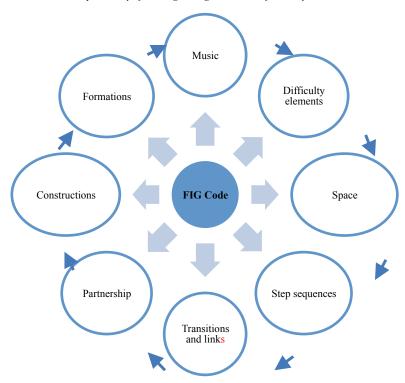


Fig. 1. Elements determining the development of choreography

# 2.2. Evaluation of gymnast or gymnasts in mixed events

To achieve exceptional choreography, several factors must join together and highlight one another. This is not always easy for the coach. The relatively low number of good gymnasts in the country does not enable the coach and choreographer to be highly selective in choosing and distributing athletes for competition events.

As a general rule, technicians must have a detailed knowledge of the physical, technical and expression potential of the athlete, in order to direct him/her during the training process towards achieving the objectives proposed. When the athlete does not match perfectly the ideal anthropometric or technical-artistic model, the task of the choreographer is much more difficult, given that the exercise must hide execution and artistic deficiencies. In this case, sometimes the creation process may use the "trial and error" model to find the optimal version.

Gymnasts for mixed events (Pairs, Trio, Group) are selected depending on the somatic criterion (height, physical build, motor skills), artistic nature/style and level of executing difficulty elements.

Possible deficient aspects of gymnasts and solutions to avoid composition errors

- low level of power and energy during movement
  - One must not overuse:
- steps combined with high amplitude movements
- quick changes in the level and direction of movement
- level-3 transitions and links

Also, the sequence of elements must be designed so that dynamic elements, like those in the difficulty groups "A" and "C", are not placed at the end of the exercise. During the last part of the

routine, the athlete loses stamina and strength, breathes harder and is unable to execute these elements at high standards.

• low level of specific strength

Diversity in alternating the effort intensity during exercise (by entering less stressful components, especially when changing the level of work)

• low level of movement amplitude

One must avoid:

- ample movements (like kicks with 180° amplitude)
- placing high amplitude elements from groups "C" and "D", and with minimum 170° amplitude, in plain sight, within point 1 of the competition area
- transitions or constructions forcing the gymnast to maximal range of motion and wrist flexion
- classical music tracks involving mobility and body plasticity
- low level of coordination

One must avoid:

- sequences of steps and arms with multiple changes of planes and directions;
- complex and high-risk changes of direction and work levels
- beat changes during steps, "doubling" generating difficulties for the gymnast in terms of movement coordination and functional stress

#### 2.3. Characteristics of specific competitions for which the choreography is developed

High level senior gymnasts annually participate in minimum 8 competitions, of which 2 are top competitions, establishing and programming the sports shape of gymnasts.

Strategically, the competition exercise is kept for one year, as it has been developed or with some changes determined by the competition calendar or other factors. For instance, the first competitions taking place in March coincide with the initial structure of the composition, which can be modified for future competitions depending on the scores obtained, audience reaction or subjective perception of the gymnast during the execution of the exercise.

For specific competitions (World Championships, European Championships, World Games, etc.), exercise composition reaches its "maximum shape" with high level of difficulty, high level of step sequences and transitions, spectacular and risky elements, all executed fluidly, easily and expressively.

# 2.4. Structure of choreographic routine – Choreography diagram

After the choreographer and coach have inventoried all factors that must be taken into account in developing an exercise, the next phase is to lay out the choreography, namely to develop it. In personal experience, this phase includes:

# a. Choosing the music theme

Music theme must match the gymnast's style and spirit and the trends observed at an international level, so that the music gives a decisive boost to the gymnast, puts him/her in the mood, provides him/her with the energy and sensibility required to impress the judges and public. Final decision in selecting the music track is usually based on the agreement between gymnast and coach. The

choreographic concept is developed by listening several times to the piece of music, in order to understand all its tones which can be expressed by specific movements.

# b. Selecting the difficulty elements

According to the Technical Regulations derived from FIG Code, an exercise includes 10 difficulty elements from the 4 groups (A, B, C and D). Each group includes several families of elements with various values. This structure provides a wide range of options in developing exercises, even when high value gymnasts are using elements with the highest level of difficulty. Sometimes, this determines an almost identical appearance of exercises, due to the desire of competitors to obtain high scores on the difficulty criterion.

c. Distribution of elements in the competition area (directions, headings in relation to the judge panel – "main direction" and balance on work level)

Difficulty elements must be distributed across the entire competition area, and under various combinations. In order to "view" this spatial distribution, a "map" must be designed to enable proper allocation of effort during the exercise, high diversity of actions and work formations, these aspects sometimes opposing the wish of the gymnast to string out difficulty elements or formations one after another, in the first part of the exercise.

Repeating or keeping the same formation or more than 4x8 music beats leads to monotony and decreases the audition interest, losing dynamism, intensity and beauty of the choreography.

# d. Placing elements to the music - musical diagram

Similar to the spatial criterion, we have previously shown a specific map for the time criterion, which is required to sequence and synchronize the difficulty elements depending on the music characteristics. Thus, the choreographer must visualize the placement of 10 elements based on listening to the piece of music, in order to find the perfect balance between sound and movement.

# e. Building interaction of step sequences and transitions with difficulty elements

Developing the step sequences takes into account the need of the gymnast for moving within the competition arena to a certain musical phrase (with a certain number of beats), as well as the style and nature of the music. The placement of steps, transitions and difficulty elements must provide the picture of a coherent whole, without sudden fractures between elements.

# f. Developing and selecting constructions (Pairs, Trio, Group)

An exercise must include two different constructions in terms of the resulting shape, which requires changes in the spatial level and dynamic actions inside each of them (acrobatic elements on various axes and planes, without total detachment of a component of the construction). Constructions are placed depending on the music dynamics and expected surprise-effect.

# 2.5. Choreography = a + b + c + d + e + f

The final result of the previously specified phases is represented by the choreographic creation, namely the entire routine. The following example shows the diagram of an entire exercise, with different marking of composing structures, indicating a time-space distribution characterized by diversity and dynamism (Fig. 2).

Selection an	nd peer-review u	1	2	3	4	5	6	7	8 time
Intro	1	Int	ro			Transiti	on with level	change	
	2	Element – Low level				Linking			
Basics	3	Element – Low level			Transition with level change				
	4				A.M.P.				
	5	A				A.M.P.			
	6	A				A.M.P.			
	7	A.M.P.							
	8					A.M.P.			
	9	Element – High level			Transition with level change				
	10				A.M.P.				
	11				Element- Medium level				
	12	A.M.P.			Transition with level change				
	13	Elemen				t – Low level			
	14	Transition v				with level change			
	15	4				A.M.P.			
	16					A.M.P.			
	17	Element – High level			Transition with level change				
	18				A.M.P.				
	19					A.M.P.			
	20	A				A.M.P.			
	21				Element – High level				
	22	Linking				A.M.P.			
	23				A.M.P.				
	24				A.M.P.				
	25	Element			- Medium level				
	26	A.M.P.				Element- Medium level			
Final	27	Transition			with level change				
	28	Element – Low level				Transition with level change			

Fig. 2. Diagram for Individual event (example)

Although developing a piece of choreography often seems to be the product of momentary inspiration, successful improvisation, in fact it involves hard work, extraordinary physical and mental effort and solid knowledge in various adjacent domains.

# 2.6. Changes and improvements of the choreography

One can never say that memorable choreography has been achieved in a single day. Choreography must be constantly improved, adjusted in its finest details which provide beauty to the artistic act.

Translating this truth in coaching, practice has proven that major changes in the exercise have been made precisely during the competition calendar, either by changing or rearranging the difficulty elements, changing the transitions, improving the constructions or increasing the step sequence complexity. Moreover, the gymnast can progress physically and develop his/her artistic side through self-discovery and perfecting his/her interpretation.

#### 3. Conclusions

By analysing the results of the last years and the proactive attitude of technicians in anticipating the development trends in aerobic gymnastics, and training gymnasts accordingly, we have found two aspects which have ensured and are ensuring high chances for Romania to be in the world top: perfecting the artistic training and improving the technical execution of difficulty elements.

Starting with 2012, the artistic training concept has included, as a determining element, innovation in the choreographic composition, which combines classical elements with modern aspects tailored for competition events.

By analysing the results and scores granted on the artistic criterion, the last years showed a significant progress of choreographic creation, also noticed by experts who have indicated a change in the style of exercises towards more complex, dynamic and musical contents and formats.

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