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## RHYTHM-KINETIC ANALYSIS AND RHYTHMICAL NUMERATION OF THE SYRTOS KALAMATIANOS DANCE

**Key words:** rhythm, kinetics, motives, numeration.

### ABSTRACT

The present study aimed to investigate the relationship between rhythmic and kinetic components of the Syrtos Kalamatianos dance to enable teaching the “authentic” form of the dance expressed by rhythmical numeration. The following analyses were used: A) rhythmical organization (rhythmical form, tempo, movements (time values), measurement of metre, musical rhythm-metre); B) rhythmic and kinetic analysis and rhythmical numeration; and C) organization of motives. The results reveal an affinity between the rhythmical and kinetic elements of Syrtos Kalamatianos as well as verbal expression of this relationship by means of rhythmical numeration.

### INTRODUCTION

Syrtos Kalamatianos is a dance performed in a circle by men and women. Its cheerful and melodic rhythm as well as its relatively easy-to-learn steps make Syrtos Kalamatianos one of the most popular traditional Greek dances. The dancers move in an open circle holding hands. Syrtos is the only ancient Hellenic version of a dance surviving today [1, 7]. The dance is known as Syrtos Kalamatianos or Kalamatianos performed in 7/8 time [♩. ♩. ♩], mainly in southern Greece, and as Syrtos in the remaining Hellenic areas. Syrtos, meaning “dragging” or “drawing” is a type of dance first referred to in the epigraph of Epaminontas from Beotia (1<sup>st</sup> century AD), which says: «tas the patrious pompas megalas ke tin ton syrton patrion orchisin theosevos epetelesen» {He made all the great national corteges and the dancing of Syrtos with great piety} [2].

Equally well known is also Disimos Syrtos, in 2/4 or 2/2 time, which in certain regions is named *Kaggeli* and is danced with the same steps. In the Greek islands the dance is performed in 2/4 time, in a different style, however but within the same kinetic framework. As far as the terminology of modern Greek dance rhythms is concerned, Georgiades [3] notes that, “In modern Greek tradition of ecclesiastical music, and particularly for folk chanters, it is common to perform songs without European metrics but with ancient Greek terminology. Thus in Modern Greek editions of ecclesiastical music and folk music we can find rhythm terms such as *tetrasimos*, *dactilikos*, *eptasimos* or *epitritos*, *eksasimos* or *choriamvos* and many more”. It must be noted that the Syrtos dance, called Kalamatianos, and the Disimos Syrtos dance have the same steps. In the former the dancers follow the rhythm: [♩. ♩. ♩], while in the latter: [♩. ♩. ♩]” [4]. The name Syrtos originates from the

Greek verb *syro* (“to drag”) [5]. The Syrtos Kalamatianos dance in 7/7 time is called *Kagelli*, or simply Syrtos in the region of eastern and western Roumeli [6].

With regard to *Syrtos Peloponnesus* (Kalamatianos) Andreopoylos [8] notes “I transcribed Syrtos Peloponnesus in 1895. All the Peloponnesians danced it with twelve steps needed for the song phrase... Syrtos Peloponnesus is an old Peloponnesian dance and is today performed all over Greece under the name *Kalamatianos* or various other names. I did not encounter this dance in the Greek islands. The dance took its name from the song of Kalamatianos in 7/8 time”.

Romeos [10] also discussed the origin of the term *Kalamatianos*: “Almost all believe that this dance was initially danced only in Kalamata, and that later it was propagated in Messinia, and then in other parts of the Peloponnesus”. This opinion appears to be justified because many other names of Modern Greek dances are testimonies to their local origins, e.g. Megaritikos, Cretan, Kerkyraikos, Macedonian, Haniotikos, Samiotikos, Koyllouriotikos, and Zagorisios. If, however, we examine the lyrics that accompany formally the Kalamatianos dance, the etymology of the dance name appears different:

*If you go to Kalamata  
And you come back,  
Bring me a bandanna,  
To put around my neck*

Kalamatianos, according to Holden and Vouras [11] “remains for the Greeks the most popular and best known of all their folk dances, not only at home but wherever they have emigrated in the world”. According to Amargianakis [12], “Syrtos Kalamatianos is the most widespread Greek dance. Although it comes from the geographical region of Sterea Ellada, according to S. Baud-Bovy it is the name *kalamatianos* which has become the most acceptable one, because when musicians played it, they referred to mantillas from Kalamata in their lyrics in order to distinguish this dance from others”.

Nikos Bazianas [13] claims that “In the case of the Syrtos dance, the rhythm is often confused with the dance because they share the same elements. In Kalamatianos the first basic steps are shortened. Rhythmically, however, the difference is considerable. Syrtos is *tetrasimos* (with a four-beat

rhythm), while Kalamatianos is *eftasimos* (with a seven-beat rhythm)”.

By referring to the ancient Greek dactyl and Kalamatianos dance, Georgiadis [1] a professor of musicology from the Universities of Heidelberg and Munich observes that “...the direct relation of this Modern Greek rhythm to the ancient rhythm of daktilos or epitritos is obvious. The seven time values of kalamatianos are rhythmically organized as 3:2:2, while with their inversion (2:2:3) the result is another kind of musical accompaniment and another type of dance (Mantilatos, Antikristos)”.

Studies of the Syrtos Kalamatianos dance have been concerned with musical recordings, descriptions and dance steps patterns. Very few studies [14] have taken a professional musical and kinetic approach to the dance. The present study was inspired by the need of more systematic teaching of the most popular Greek dance to international audiences. Its main aim was the analysis of the rhythmical and kinetic components of Syrtos Kalamatianos in order to determine their mutual relationship to be able to express the genuine form of the dance using rhythmical numeration.

Rhythmical elements are the necessary coordinates in a rhythm used to determine time relations. In this study the rhythmical elements were the musical meter (time unit, measurement movements) the tempo and the rhythmical form [17]. Kinetic elements are the smallest analytical units of a dance [15]. These are the smallest elements of movement which are recognized as antithetical by followers of a specific dance tradition. Although pointless by themselves, the kinetic elements are the basic construction units of a dance of specific tradition [16]. Rhythmical numeration is the numerical description of the rhythm-kinetic relationships derived from the comparison of kinetic duration and rhythmical values. They are described and verbally expressed during teaching of dance movements in two ways, as the first (1<sup>st</sup>) and the second (2<sup>nd</sup>) rhythmical numerations [17].

#### *Research aim*

The study aimed to determine, using the analysis of rhythmical and kinetic elements of the dance, the relationship between the rhythmical and kinetic elements of Syrtos Kalamatianos, and express this relationship by means of the 1<sup>st</sup> and 2<sup>nd</sup> rhythmical numerations as resulting from the

comparison between the time value of the rhythmical elements and duration of the kinetic elements. With the organization of the rhythm-kinetic dancing motives, the complete rhythm-kinetic structure of the dance can be described and verbally expressed by means of rhythmical numeration.

## METHODS

The data used in the study were written sources and recordings of dances performed by the dancing group of Y.M.C.A. of Thessalonica, supervised until 1970 by the professor of physical education and teacher of traditional dances, Vavritsas Nikolaos. The following analyses were used in the study:

### *Organization of rhythmical elements*

The rhythmical type of the dance and rhythmical parameters were recorded during the rhythmical and kinetic analysis. The recording was based on musical transcriptions made by musicologists and other researchers with the use of theory and methodology of folk musicology. Rhythm-kinetic analysis describes the relationship between rhythmical and kinetic elements by which every movement is chronically determined, in order to obtain a specific and countable time value.

Ethnomusicology, according to The New Grove Dictionary of Music and Musicians [18], deals with the “living” music of verbal tradition outside the limits of urban European artistic music. It is a branch of musicology and anthropology. Its methodology include: 1) data collection and documentation, 2) transcription and acoustic analysis, 3) taxonomy, systemization, 4) social function, 5) historical overview, 6) ethics, 7) conclusions. More specifically, the following analyses were used in the present study:

1. Rhythm-musical metre. The rhythmical type of the studied dance was marked as

$$\begin{array}{cccccc} 4 & 2 & 2 & 5 & 2 & 3 \\ = & + & \eta & = & + & \\ 4 & 4 & 4 & 4 & 4 & 4 \end{array};$$

2. Measurement (time values) of movements of the bar. The number of the dance measurement time values was marked. For example, the rhythm

$$\begin{array}{c} 4 \\ 4 \end{array} = \begin{array}{c} 2 \\ 4 \end{array} + \begin{array}{c} 2 \\ 4 \end{array} \text{ and the rhythm: } \begin{array}{c} 6 \\ 8 \end{array} = \begin{array}{c} 3 \\ 8 \end{array} + \begin{array}{c} 3 \\ 8 \end{array} \text{ are counted}$$

with two movements, and the rhythm  $\begin{array}{c} 5 \\ 4 \end{array} = \begin{array}{c} 2 \\ 4 \end{array} + \begin{array}{c} 3 \\ 4 \end{array}$  is counted with five movements, the rhythm:  $\begin{array}{c} 7 \\ 4 \end{array} = \begin{array}{c} 3 \\ 4 \end{array} + \begin{array}{c} 2 \\ 4 \end{array} + \begin{array}{c} 2 \\ 4 \end{array}$  is counted with seven movements, etc.

3. The tempo. The tempo of the studied dance was marked. In dancing the rhythmical action does not remain constant. It is shaped depending on the musician’s decisions, mental disposal of dancers and other factors. In most cases it differs from dance to dance or even within the same dance, and in some other cases, it stays the same throughout the entire duration of the dance. The tempo of the dance usually accelerates.

4. The rhythmical form. The basic rhythmical form of the musical metre of the dance is the “skeleton” of the time values as performed by rhythmical instruments, e.g. a lute. Musicians do not only execute the basic forms of a rhythm but they improvise, and the forms are expressed rhythmically in coordination with the melodic movements depending on musicians’ imagination and views.

### *Rhythmical and kinetic analysis and rhythmical numeration.*

For the purpose of the analysis a five-column table was compiled:

The 1st column [M.] included the total of the rhythmical and kinetic motives (M1-M2-M3 and so on) analyzed in the frame of musical metre, depending on the extent of the dance. The motive is the smallest group of notes which are commonly repeated. The rhythm and melodic limits of a motive do not have to be strictly determined as long as there are repetitions [19].

The 2nd column [S.] contained the rhythmical forms, of which the internal values of duration were determined during the analysis. The rhythmical form that results from this process is fixed as a rhythmical motive.

The 3rd column [1st] of the table contained the 1st rhythmical numeration. The 1<sup>st</sup> rhythmical numeration of the value of the movement is made according to the rhythmical proportion, i.e. according to the factor of time as it is shaped during the rhythmic-kinetic analysis. Specifically, this numeration is made according to the rhythmical type, the measurement of movements of the metre and the internal shape of time values of the rhythmical form.

The 4th column [2nd] included the 2nd rhythmical numeration. The 2<sup>nd</sup> rhythmical numeration of the value of the movement is made according to the kinetic proportion, i.e. according to the factor of the movement as it is shaped by the total number of the kinetic elements, the time values of which are determined in the rhythm-kinetic analysis.

The 5th column included the description of the kinetic units or elements of the dance. It is realized for the comprehension of the time and place of each movement and does not deal systematically with other qualitative characteristics of movement (e.g. style). The total of two or more kinetic elements shaped in the frame of a musical metre into small kinetic units is fixed as a *kinetic motive*. “The kinetic motive corresponds to a rhythmical motive that is to say to a musical metre...” [20].

*Organization of motives*

The composition of dancing motives was based on the traditional limits in musicology which are constituted by the rhythmical and kinetic motives: i.e. [M]otive 1 + M2 + M3 and so on. When, the organization of dancing motives involves a repetition of the same motives, then the repetitions are respectively numbered, e.g. (M1) X3. The present study analyzed two basic dancing motives.

RESULTS

The results of the analysis of the rhythmical and kinetic elements of Syrtos Kalamatianos revealed a) the relationship between the rhythmical and kinetic elements of the dance; and b) allowed the expression of this relationship with the first and the second rhythmical numeration, thanks to a comparison between the time value of the rhythmical elements and duration of the kinetic elements. The rhythmic-kinetic analysis was carried out on the following levels: a) the rhythm-kinetic motives (M1, M2, M3 etc.) constituted according to the musical metre and the rhythmic and kinetic limits of the dance (Table 2); b) the time values; c) the 1<sup>st</sup> rhythmical numeration; d) the 2<sup>nd</sup> rhythmical numeration; and e) the kinetic motives (Table 1).

**Table 1.** Rhythmic-kinetic analysis and rhythmic numeration

| 1  | 2  | 3   | 4   | 5  |
|----|----|-----|-----|--|
| M. | Σ. | 1st | 2nd | Kinetic elements of the dance form                                   |
| M1 | ♪. | 1   | 1   | Right foot steps to the right counterclockwise.                      |
|    | ♪  | 2   | 2   | Left foot steps to the front of the right foot.                      |
|    | ♪  | 3   | 3   | Right foot steps to the right counterclockwise.                      |
| M2 | ♪. | 1   | 4   | Left foot steps to the right counterclockwise.                       |
|    | ♪  | 2   | 5   | Right foot steps to the right counterclockwise.                      |
|    | ♪  | 3   | 6   | Left foot steps to the front of the right foot counterclockwise.     |
| M3 | ♪. | 1   | 7   | Right foot steps to the right counterclockwise.                      |
|    | ♪  | 2   | 8   | Left foot steps to the right counterclockwise. Right foot is lifted. |
|    |    | 3   | 9   | Right foot steps back to its initial position.                       |
| M4 | ♪. | 1   | 10  | Left foot steps to the left and backwards clockwise.                 |
|    | ♪  | 2   | 11  | Right foot steps back and next to the left foot.                     |
|    |    | 3   | 12  | Left foot steps to the right counterclockwise.                       |

**Table 2.** Organization of motives

| Motive sequence            | M1    | M2    | M3    | M4       |
|----------------------------|-------|-------|-------|----------|
| Rhythmic structure         | ♪.♪♪  | ♪.♪♪  | ♪.♪♪  | ♪.♪♪     |
| 1 <sup>st</sup> Numeration | 1-2-3 | 1-2-3 | 1-2-3 | 1-2-3    |
| 2 <sup>nd</sup> Numeration | 1-2-3 | 4-5-6 | 7-8-9 | 10-11-12 |

*Rhythmic Organization:*

Rhythm: 7/8 = (3+2+2)

Time unit: ♪

Basic rhythmical form: | ♪ y ♪ N ♪♪ |

Tempo (♪ ~ 248) Allegro

## DISCUSSION

The investigation of the relationship between rhythmical and kinetic elements of the Syrtos Kalamatianos dance constitutes a basis for reliable studying and teaching of the dance. The rhythmic and kinetic relationship resulting from the comparison between the kinetic durations and rhythmical values of the dance is represented by the first and second rhythmical numerations. These findings are to some extent related to the results of previous studies [14]. They are significant for the teaching of the dance and can be used to precisely determine and measure the duration of each movement of the dance. Moreover, the obtained study results clearly show the rhythmical organization of Syrtos Kalamatianos.

The investigation of the relationship between dance rhythm and movement is highly significant because these two factors are very closely interconnected. The present study investigated the rhythmical and kinetic components of Syrtos Kalamatianos beyond a mere juxtaposition of its historical and folklore elements. The precise determination of the affinity of rhythmical and kinetic elements of Syrtos Kalamatianos as well as the verbal expression of this relationship by means of rhythmical numerations contribute to the comprehensive research of the dance's transmission. Future research on the organization of rhythmical and kinetic elements of other dances, traditional or modern, would greatly contribute to the development of the theory and practice of dance teaching.

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