

Metric-rhythmic ambiguity in the dances of Central-Northern Sardinia

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In central-northern Sardinia dance was, and still is, accompanied by the *cantu a tenore*, an oral-tradition polyphony in four parts for four male voices. Among the principal characteristics of this musical form we find: the text is expressed by the only soloist voice (*sa boghe*) accompanied by the non-sense syllables of the other three voices (*su tenore*), the guttural timbre of the two lowest voices (*su bassu* and *sa contra*) and the fact that every village preserves its own tradition, which is distinguishable based on the composition of the repertoire, the timbres of the voices, the macrostructural organization, the movements of the parts and the use of certain not-sense syllables [Lutz 2003]. These local specificities notwithstanding, in numerous villages some dance songs present striking particular metric-rhythmic relationship between the soloist (*sa boghe*) and the rest of the choir (*su tenore*). The aim of this research is to propose an analysis of this relationship.

The object and the method

Apart from some rare exceptions, the dances are sung with texts in hendecasyllabic or octosyllabic metre. The analysis presented here, takes the latter into consideration [1]. When dealing with the *cantu a tenore* it is necessary to keep in mind the fact that, quoting Francesco Giannattasio, «any musical event in circles of oral tradition implies [...] a certain rate of "variation", that is a possible (or rather inevitable) alteration of the repertoire that intends to be reproduced» [Giannattasio 1998:168]. The analysis does not refer therefore to a single piece, but it has rather the purpose of determining the model of which the single performance is nothing but one of the possible reproductions [Lortat-Jacob 1987 and 2005]. The aim is to identify the elements on which the grammar of the musical event is based and therefore the entire rules, culturally distinguishable and not detailed by the singers, which contribute to define sounds, rhythms, technical gestures etc.

The nature of the object imposes a methodology of analysis that integrates different perspectives. The initial research was based on listening to a corpus of recordings [2] and on their analysis using specific softwares; the resulting data was subsequently compared with the opinions of the singers and the dancers. A further comparison to an instrumental version of the dance proved useful. Eventually, some of the extra-musical aspects of the performance, such as the dance and the gestures of the musicians, were taken into consideration.

Sa boghe: the soloist

The octosyllabic verse is set to music with a unique rhythmic model that can vary slightly depending on the village, the individual chorister, the context or the specific performance.

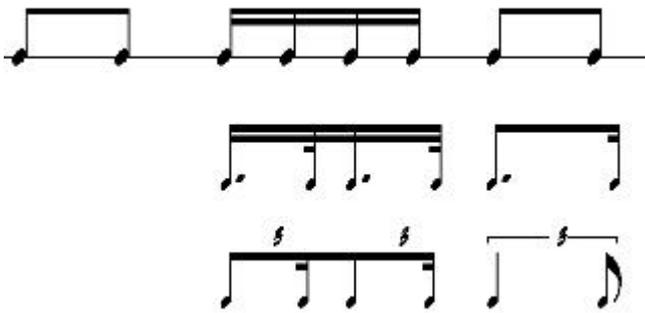


fig. 1

[Dorgali. Ballu `e tres passos \[ES. AUDIO 1\]](#)

[Fonni. Ballu sàrtiu \[ES. AUDIO 2\]](#)

[Orgòsolo. Ballu tundu \[ES. AUDIO 3\]](#)

A six-beat structure with a binary subdivision is evident when listening; it is also confirmed by the tonic accents of the octosyllabic verse that, as known, fall as a rule on the 3rd and 7th syllable.



fig. 2

Such a rhythmic figure, even if it shows analogies with the accent structure of $\frac{3}{4}$ of written western notation, presents fundamental differences. If $\frac{3}{4}$ is characterized by the succession of the accents Strong weak weak, the rhythmic figure of *sa boghe* is characterized by an accent structure in which the third beat is particularly marked (S w S). Not only when listened to, this result is also highlighted by a computer analysis. With Speech Analyzer V 2.73 software [3] we can see the magnitude of the waveform. As Fig. 3 shows, it is evident that the third beat, coinciding with the seventh syllable of the poetic verse, is particularly marked if not even the strongest accent.

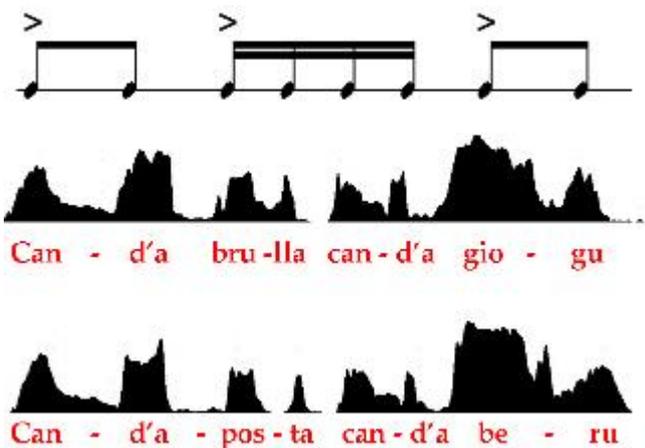


fig. 3

[[ES. AUDIO 4](#)]

The attempt made in the past [Montis 2000:84] to subscribe forcibly the rhythmic figure of *sa boghe* in a bar of $\frac{3}{4}$, making the seventh syllable coincide with the first beat of the bar, doesn't seem to be an acceptable solution, in so much that it doesn't meet with the singers' point of view. They clearly express the idea of a cycle that coincides with the poetic verse; accordingly the model hypothesized by Montis would not be consistent with their way of considering the rhythm of the dance and its cyclical recurrences.

Su tenore: the accompanying choir

From listening to the corpus, it emerges that the three components of the choir: *bassu*, *contra* and *mesu boghe*, propose different rhythmic figures from village to village and from dance to dance; however, they can be categorised into two great families. Assuming that the term *corfos* is used to identify an intervention of the choir, from one silence to the next, dances in which *su tenore* delivers only long *corfos* belong to the first family.

[Orgòsolo. Ballu tundu. \[ES. AUDIO 5\]](#)

Whereas dances in which long and short *corfos* alternate belong to the second family [4].

[Dorgali. Ballu `e tres passos \[ES. AUDIO 6\]](#)

In both cases, isolating the part of *su tenore* from that of *sa boghe*, rhythmic figures with ternary organization emerge. This is also confirmed by the computer readings: in the ballu *sàrtiu* of Fonni (NU) the magnitude graph highlights the first and the fourth note as those with a greater intensity.

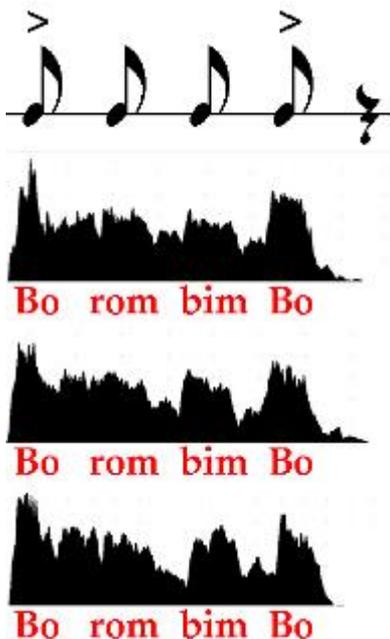


fig. 4

[Fonni. Ballu sàrtiu, su tenore \[ES. AUDIO 7\]](#)

As Arom states, observing the complexity of the concept of accents, «for there to be rhythm, sequences of auditive events must be characterised by contrasting features» [Arom 2005:1094]. In the case of the ballu sàrtiuof Fonni the ternary organization is confirmed by the principal elements that can make such contrast perceptible:

- variation of the dynamics, evident in the magnitude graph;
- variation of the timbre, use of the syllable "BO" on the first and fourth note;
- variation of the pitch: the *mesu boghe* moves between the fifth [scale degree], in the first three notes, and the third scale degree in a major scale in the last note [5].

Sa boghe and su tenore: the metric-rhythmic ambiguity

It is important now to understand the relationship between the rhythmic figure of *sa boghe* and that of *su tenore*. It is indeed this relationship that produces the metric-rhythmic ambiguity, which is the subject of this study. It is enough to listen carefully to realise that both the rhythmic figures underlie the same beat. But how do they synchronize with each other? Theoretically there are three different possible combinations depending on whether the strong accent of *su tenore* corresponds to the first, second or third accent of *sa boghe*. From the analysis of the corpus it is possible to extrapolate a general rule, a founding element of the grammar of the dance songs: in all the dances with a octosyllabic metre, regardless of the village and of the chorister, the solution selected is always the same: the strong accents of *su tenore* coincide with the second and the fifth beat of *sa boghe*, corresponding to the second and the seventh syllable of the poetic verse.

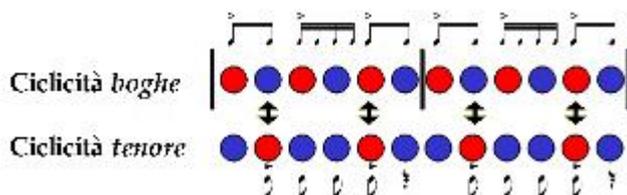


fig. 5

Most of the rhythmic ambiguity therefore derives from this combination of accents: of the 6 beats at the base of the rhythmic figure of *sa boghe* stresses the first, the third and the fifth of the six beats at the base of its own rhythmic figure, whereas, the second and again the fifth are accented by *su tenore*.

The relationship between the two rhythmic figures can be shown effectively with the aid of a video, where the beats of *sa boghe* and *su tenore* are numbered respectively at the top and at the bottom. [6] The first video shows a fragment of ballu lèstru performed by a Bitti (NU) choir; a dance in which short corfos and long corfos alternate.

- [See VIDEO 1](#) -

The second video shows a fragment of ballu tundu of Orgòsolo (NU); in which *su tenore* performs exclusively longcorfos.

- [See VIDEO 2](#) -

From the *cantu a tenore* to the accordion

This particular metric-rhythmic pattern goes beyond the confinements of the *a tenore* way of singing and constitutes one of the structural aspects that has characterised the dances of central-northern Sardinia since the last decades of the nineteenth century. At the beginning of the first decades of the twentieth century, the diatonic accordion, an instrument that goes side by side with the *cantu a tenore* in accompanying the dance, was introduced in Sardinia. By listening to and observing an accordion player one realises that the right hand plays some melodies based on the 6 beats with binary subdivision (as *sa boghe*), while the left hand follows the organization with ternary subdivision (as *su tenore*). In video No. 3 the accordion player Gianluca Boi of Siurgus Donigala (CA) plays ballu cabillu [7]. On the left side we can see the numbering of the beats similar to that of *sa boghe*, for the melody performed with the right hand; on the right side the numbering highlights the ternary subdivision, similar to that of *su tenore*, that leads the left hand both in the gesture (change in direction of the bellows corresponding to the strong accents) and in the harmonic choices: C (single note) / C major / C (single note) in closing and G major / F (single note) / G major in opening.

- See [VIDEO 3](#) -



fig. 6

The choreutic

The basic step in Sardinian dance, removed from the ornamentations such as the rapid movements of the point of the foot or the doubling of the skips, develops its periodicity in six beats. What the dancers consider "a step" is distributed in the six beats that drive *sa boghe* according to the scheme of the supporting foot R-L-R-x-L-x. Inside this cycle, the "battuta", that is the placing of the left foot on the fifth beat, is of particular importance,

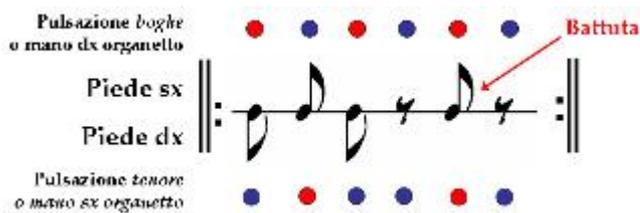


fig. 7

Once more this rhythmic figure preserves the same ambiguity: the steps of the right foot plus the battuta follow the accents of *sa boghe* (1st, 3rd and 5th pulse), while those of the left foot follow the accents of *su tenore* or, for the accordion, the opening and closing of the bellows.

- [See VIDEO 4](#) -

Metric or rhythmic ambiguity?

So far I have spoken generically about rhythmic figures purposely avoiding the problem of the distinction between metre and rhythm. At this point it is necessary to ask ourselves if the ambiguity identified must be considered of rhythmic nature or of metric nature. Do we find ourselves in front of a polymetrical or a polyrhythmical music? The clear distinction between rhythm and metre is a greatly complex matter. The debate is ongoing both in musicology: Cooper and Meyer have already asked the question: «What came first, the chicken or the egg? Is it the rhythm that determines the metre or the metre that determines the rhythm?» [Cooper and Meyer 1960:96] and in ethnomusicology; one thinks of the studies of Simha Arom [1991] and of Kofi Agawu [1995] on African polyrhythm or of Martin Clayton [1997 and 2000] on the rhythmic organization of Hindustani music.

In the case of *a tenore* dances, if the concept of "metric" is accepted as it is generally considered in musicological vocabulary, as the way to order the metre in a hierarchized frame of reference (the bar), the ambiguity would seem to be of a metric nature: for *sa boghe* and *su tenore* underlie two different systems of reference based on the same isochronic beat and organized in cycles through a hierarchy of accents. Such hierarchy is systematically respected in the realization of the rhythmic figures.

But if we consider, in agreement with Nattiez, that such a concept of metre «is typical of western culture» and that «things are not always so» [Nattiez 1987:119], accepting accordingly the idea that «metre is - in the experience of what is lived by the body - that which the rhythm spontaneously reminds us of, according to rules individual to every culture» [Nattiez 1987:125], the matter becomes more problematic. In fact, if we try to understand that «which the rhythm spontaneously reminds us of» by asking the choristers, accordion players and dancers "to beat the time" while they are listening to a dance song, we will get some significantly heterogeneous answers. As Fig 8 shows, the answer vary from the three accents of the six beats of *sa boghe* (cases a. and b.), to the beating of the six beats without the idea of a numerically ordered cycle. Some, rather than marking the isochronic beat, mark the 4 beats of the dance step with their hands (case d.) and others still mark the beat numerically dividing it into groups of 4 (case e.).

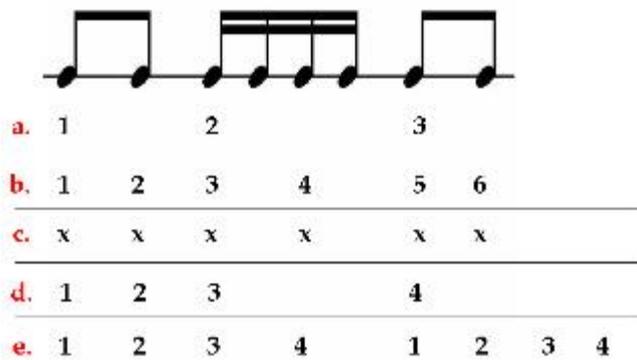


fig. 8

On the basis of this simple experiment, there would not seem to be a unique and shared system of metric reference to which performers and dancers make reference. The phenomenon would seem to be primarily of a rhythmic nature: singers and dancers consider a rhythmic figure, a pattern that contains in itself accented and non-accented elements. They reproduce such pattern and possess a non-explicit grammar that determines the possibilities to vary it, but this does not relate to a system of reference based on underlying hierarchized isochronic beats, therefore with a metre.

Although further investigation would be necessary to lean towards one hypothesis or the other, the fact remains that the rhythmic ambiguity explored in this study, verifiable in the *a tenore* dances and in the accordion playing, in the dance steps and in the gestures of the players, presents itself as a fundamental element on which the dances of central-northern Sardinia are based.

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Notes

1. This choice was made for two reasons: first of all the fact that the dances with texts in octosyllabic metre are present in the greatest part of the villages in which *a tenore* is sung and secondly for the fact that the rhythmic treatment of the eight syllables by *sa boghe* is nearly uniform in the whole area.
2. The corpus is constituted in good part by the published material [Macchiarella and Pilosu s.d.] and by unedited recordings created by me.
3. Software developed by SIL (Summer Institute of Linguistics) and available from www.sil.org.
4. Although the three voices of *su tenore* do not always proceed in a homorhythmic way, in this study they will be treated in their completeness considering the most meaningful accents that emerge from the collective execution.
5. The tonal centre corresponds to the note produced by *su bassu*.
6. In the top part the numbers 1, 2 and 3 indicate the three beats accented by *sa boghe* (corresponding to the little red balls of figure 5); in the lower part all the beats of *su tenore* are indicated with the accented ones being highlighted (little red balls of figure 5).
7. With this denomination the performers of southern Sardinia identify the dances typical to the central-northern area.