

Scale, Rhythm and Melody in the Music of Brazilian Indians¹

Thesis presented by
LUIZ HEITOR CORRÊA DE AZEVEDO

for the competition for the chair of

NATIONAL FOLKLORE

at the National School of Music of the University of Brazil

RIO DE JANEIRO
“Jornal do Commercio”

RODRIGUES & CIA.

1938

¹ Translated by Peter Fry and revised by Rafael José de Menezes Bastos.

Two hundred copies of this thesis have been printed numbered from 1 to 200. Those numbered 1 to 50 were sent to the National School of Music of the University of Brazil in accordance with Article 5 of Law No. 114 of 11 November 1935. Those numbered 51 to 200 are available for circulation but may not be sold.

Having the privilege of living in a family in which the Indian problem is Religion, I write on this page the names of

Inspector ALBERTO JACOBINA, *of*

LIEUTENANT COLONEL VICENTE DE PAULO VASCONCELLOS

And that of

MARIA LUIZA

in whose heart there is always a little of this music.

The data presented in this thesis belongs to the second Point of the Programme of the Chair in National Folklore of the National School of Music at the University of Brazil: “ARTISTIC MANIFESTATIONS OF THE ABORIGINES. THEIR MUSIC”.

Luiz Heitor Corrêa de Azevedo

I

The music of Brazilian Indians, as all music among primitives, is characterized by the constant repetition of a short motif more characteristically rhythmic than melodic. KARL VON DEN STADEN refers to the “invariable monotony of the singing, of the rattles and of the stamping of the feet of the Bacarairis (42, vol. XXXVII, p. 82); but adds that it was exactly this uniformity that impressed him and attracted his sympathy.

How can we characterize the music of our Indians? On which scales and rhythmical principles is it based? Is it based on a series of five sounds, without minor seconds, known as the pentatonic scale that is characteristic of the most remote musical cultures of the planet? Does it contain smaller intervals than the semitone as in the music of the East? Does it distinguish between strong and weak timing? We will try to put a modicum of order into these and a few other issues. We will observe them studiously but not without questioning LUCIANO GALLET, who, in his *Estudos de Folclore*, doubts the legitimacy of the musical notation through which travellers and ethnographers have recorded specimens of indigenous music which is the basis of our study.

He refers specifically to the musical examples from *Rondônia* brought by ROQUETTE-PINTO and transcribed by Mr. ASTOLFO TAVARES from the collection of phonograms brought to the National Museum by the Rondon Mission², GALLET affirms that the notation “completely falsifies the configuration and structure of the music of the phonograms (11, p. 44). And, after listening to those very phonograms, concluded that the music of the Indians differs from ours in the following ways (11. P. 44):

2 Nine of these phonograms are on the important CD *Rondônia 1912: Gravações Históricas de Roquette-Pinto*, that resulted from research by Edmundo Pereira and Gustavo Pacheco, who also authored the excellent notes accompanying the CD. It was produced around 2005 (there is no date on the CD itself), with funding from Petrobras, as part of the Collection of Sound Documents of the National Museum, Rio de Janeiro (Note by Rafael José de Menezes Bastos).

1. The scale, which seemed to him to be formed of different intervals from ours; quartertones, perhaps;
2. As a consequence, the harmonic system was also distinct. He claimed to have heard songs in various voices in counterpoint in ways which are in no way similar to anything we might imagine;
3. A rhythmical structure that bears no relation to ours.

We shall concentrate on the first and third point, since the second is not contentious. All who study the history of music know that the people of the monodic periods also employed the accompaniment of multiple voices, whose principles could not be exactly gauged because of the lack of convenient notation (and because this was left to the improvisation of the singer or player). So there is no reason to be amazed at these rudimentary and unconscious attempts at aboriginal polyphony (from the point of view of the simultaneity of the sounds) that have indeed been occasionally observed by Mr. ASTOLFO TAVARES himself (34, p. 324 onwards).

II

Would the notation of the phonograms in the National Museum be really false if there were smaller intervals within them than the semitone, but which it had been impossible to include in the transcription?

The notation of the music of primitives is very complex because of the lack of fixity of such music not only in melodic design but also in relation to the exact pitch of the sounds. Indeed, ERICH FISCHER warns us that the absolute pitch of sounds is generally without value in the songs of primitives (apud 22, p. 305, note 2). And in a curious study of what he called *evolutionary tonality*,³ JOSEPH YASSER, after observing that primitives are unable to produce the more or less defined pitch of the musical scale separately and successively, “without recourse to the uncertain portamento of one sound differing from another”, alleges that it is for this reason that one gains the false impression that the [primitives] utilize very *subtle* intervals.⁴

Indeed, while YASSER claimed that the Greeks codified melodic

3 JOSEPH YASSER. *La tonalité évolutive*. *La Revue Musicale*, Paris, no. 181 (Février 1938), p. 98

4 Id. Id., p. 104.

principles based on quarter tones, CURT SACHS, the great researcher of ancient and oriental music, noted that “an exact division of the semitone in two quartertones is impossible”, claiming that in the case of the Greeks, it was a case of “small changes of tuning recognized by the laws of the theory when performers raised or lowered their voices involuntarily while executing a particular melody.”⁵

On the other hand, JULIEN TIERSOT in studying the music of black Africans⁶ and finding that the conclusions reached “pourraient être considérées comme placées à la base de la musique universelle et en affirmer les immuables lois”, affirms the inexistence of the “mythical interval of the quarter of a tone”. “All that exists, – he said – in Africa as elsewhere, are people who sing without tone and with out of tune instruments; from time to time this might constitute an approximation to quarter tones but not as a system as such.”

So, as we analyze the phonograms of indigenous music we must be aware of the inexactness of the singer, the absence of melodic fixity, which would make the piece different on a second recording. We must try to deduce the anatomy of the musical scale through these floating sonorous vestments, the true melodic skeleton, reduced for analytical necessity, to the immutable expressions of our own music.

We do not in any way believe in the existence of quartertones in Amerindian music; the impression is created by deviations of tuning and portamentos between undefined sound pitches. MARIO DE ANDRADE confirms this point of view in his *Compendium of the History of Music* [*Compêndio de História da Música*], when, after observing that the sound of the music of the primitives is “not too clear in the midst of dragging portamentos” declares: “I verified the existence of such processes among the Brazilian Indians in the National Museum phonograms “(1. P. 13).

On the contrary, primitive music doesn't even have semitones. The smaller interval than the semitone goes one step further than diatonism and chromaticism. It is a theoretical refinement whose rigorous agreement with musical practice has not been definitively proven. It is not likely therefore that

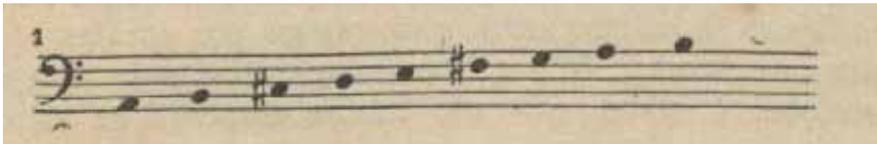
5 CURT SACHS, *La musica en la Antigüedad*. Barcelona. Edigitorial Labor S.A. p. 108.

6 JULES TIERSOT, *La musique chez les Negres d'Afrique*. In *Encyclopédie de La Musique et Dictionnaire Du Conservatoire*. Première partie, vol. V. Paris, Librairie Delagrave, 1922. P. 3.224

quartertunes would have been introduced instinctively and without grammatical speculation into the music of our primitives.

III

Indeed the quartertone is totally absent even in instrumental music, where it should have been found. On the contrary, the sounds produced by indigenous instruments reveal a clear identity with our own musical system, reproducing perfectly tuned thirds, fourths, fifths and octaves, dividing the octave into sounds, which are related to one another in the same way as our own tonalities.⁷ For example, the Pareci flutes in the National Museum (catalogued as 11.218, 11.220 and 11.224) can be divided into three types—low (*zoratealô*), medium (*teirú*) and high (*zaolocê*)—and together they provide the following scale (34, p. 136):



So what we have is the octave divided into five tones and two semitones just like our own diatonic scale. OTÁVIO BEVILCQUA has this to say after examining the syrinx in the ethnographic collection of the National Museum (5, p. 11): “the Brazilian syrinx shows the clear notion of the classification of sounds in order of pitch; the sentiment of the intervals where relations are simpler, for example true octaves, fifths and true fourths, while also major and minor thirds and even major seconds are interestingly tuned. The minor second, as in many analogous cases, did not enter into the cogitations of our forest dweller instrument makers. What is quite clear is the sensitivity for

7 One should note here that MARIO DE ANDRADE’s supposition that “primitive peoples build instruments with the simple intention of obtaining Sound, but not always specific sounds”(1. P. 13), is difficult to sustain in the light of some well studied cases: it cannot be accepted as an absolute and immovable principle (this was not the intention of the author who formulated a *hypothesis* and not a *conclusion*). In a study to which we will return later, O. BEVILACQUA says (5, p. 8): “The obvious musicality of the instruments we have observed forces us to repel the hypothesis of arbitrary fabrication. On the contrary, any existing defects should be attributed to technical deficiency due to the difficulty of overcoming problems of construction”. The scale is not a consequence of the possibilities of the instruments; the instrument must itself obey the demands of previously existing musical intervals.

the initial sounds of the harmonic series, classified in the natural consonant harmony Even more advanced formations of natural harmony are present (chords of the diminished fifth and the dominant seventh)”.

So, even forgetting the lack of melodic fixity and the clear passage of one sound to another that is common to all primitive music we may suppose that the songs of Brazilian Indian are based on the same scales as our own. Clearly we don't want to insinuate that they utilized major or minor scales or had a notion of tonalities; what is important is only the heptaphonic scale, formed by five tone and two semitone intervals regardless of the order in which they are placed in relation to one another. The melodies that we shall now study leave no doubt about this.

IV

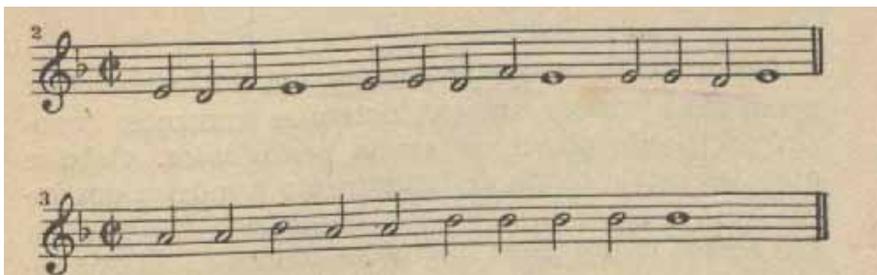
Let us now provide a number of facts that indicate the principles upon which the nature of the melody of the forest dwellers is based.

As we have seen, they possess a complete (*heptaphonic*) scale; this is indubitable and can be demonstrated by the possibilities of certain instruments and through the large number of melodies that have been recorded as phonograms or noted by ethnographers. The range of these melodies however rarely exceeds one octave.

The pentaphonic scale⁸ of primitive people seems not to have been used by Brazilian Indians for we find the semitone in almost all their melodies, even in some of the most rudimentary ones with only two or three notes. These are the songs observed by JEAN DE LÉRY in his *History of a voyage to the land of Brazil* (18, pp. 128 and 214)⁹

8 As mentioned above this is a defective scale of five tones without any semitones. It is made up only of intervals of major seconds and minor thirds.

9 Example no. 3 is cited with due reservation, since the old editions of LÉRY's work do not all use the same notation. In the French editions of 1585, 1595, 1600 and 1611, *F* and *G* appear instead of *A* and *B flat*. In fact there are many differences in these old editions; and there are frequent mistakes in the placing of the keys of *C* in the pentagram in conflict with its key signature For this reason I chose the Latin edition of 1586 and the fourth French edition of 1600; in both the musical texts are clearer and in versions which I judge more authentic. It is curious to not that in his chapter on Art in the book *Le Brésil en 1889*, organized by SANTA-ANNA NERY for the Universal Exhibition in Paris (31, pp. 546-7), EDUARDO PRADO transcribed all the musical themes from LÉRY's work, giving them an appearance that is absent in the editions in the National Library of Rio de Janeiro with which I have carefully compared them. Subsequently, PEREIRA DE MELLO (29, p. 11), CERNICCHIARO (7, p. 29), LUCIANO GALLET (11, p. 43), etc., have reproduced slightly different texts from those that appear in the cited editions. It is quite possible that EDUARDO PRADO who was an astute bibliophile might have based his examples



(the first of which gave VILLA-LOBOS the theme for one of his *Trois Poèmes Indiens*, for voice and orchestra) and the ritual scream of the Parecís, in phonogram no. 14.598 in the National Museum (34, p. 328), endlessly repeated by two masculine voices:



Even so, exceptionally in certain melodies, maybe the purest and oldest, one can find sonorous formations that appear to originate in the *pentaphonic scale*. It is known that this scale was the basis of the music of the Incas¹⁰; it is possible therefore that it had been transmitted to our Indians through pre-historic migrations which brought certain aspects of that great civilization to this part of the continent.¹¹ Such are, for example, the Pareci songs on phonograms ns. 14.594 and 14.595 of the National Museum collection:

Ualolocê (34, p. 324)

on another edition that he found in Europe (even so less authentic than the first ones). Of these the National Library of Rio de Janeiro possesses no less than 11, printed between 1578 and 1611.

¹⁰ See the studies of MARGERITE BÉCLARD-d'HARCOURT. "On peut déterminer d'une manière certaine l'échelle déficiente pentatonique en usage avant la venue des Espagnols chez les anciens civilisés de l'Empire des Incas", she says in one of her studies (*La musique indienne chez les anciens civilisés d'Amérique*. In *Encyclopédie de la Musique et Dictionnaire du Conservatoire*. Première Partie, vol. V. P. 3.354)

¹¹ According to TIERSOT, the pentaphonic scale may in fact be found throughout the world (op. Cit., p. 3.207)

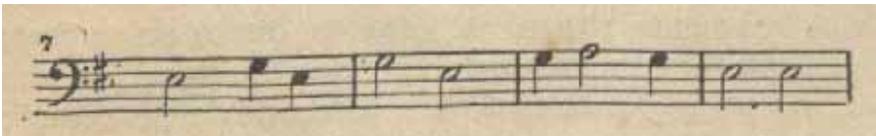


and *Teirá* (34, p. 328)



These songs with the melodic line impregnated with exoticism (as a consequence of their defective scale) excited the interest of our composers, and are part of their most successful compositions. VILLA-LOBOS brought the *Teirú* to the first of his *Trois Poèmes Indiens*, for voice and orchestra; and from the *Ualalocê* he created an extremely sensitive harmonization for voice and piano.¹² The words of this last song were used by MARIO DE ANDRADE to compose a short yet intense poem, which LUCIANO GALLET put to music under the title *Pai do Mato* (*Father of the Forest*), again ably using the Pareci musical motif.¹³

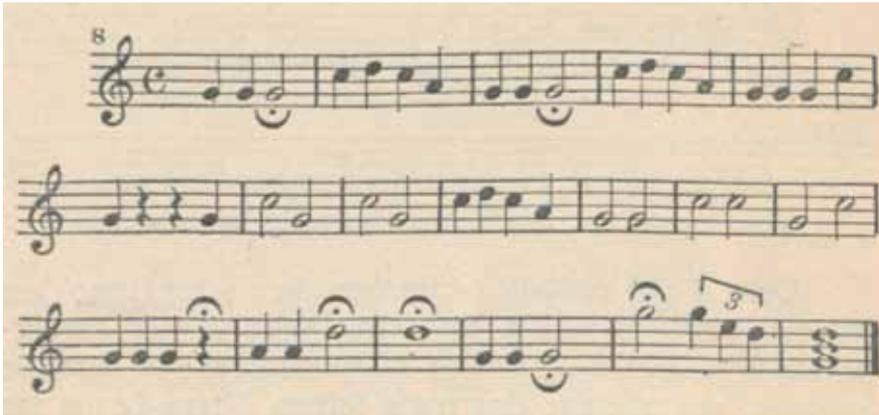
The song of the Aparais cited by Dr. ARNOLD DEUBER in his study on the music and musical instruments of these Indians is probably also derived from a pentaphonic scale. (10, p. 321):



12 H. VILLA-LOBOS, *Ualalocê. Legende des indiens Parecis chantée et dansée pour fêter la chasse*. In the album *Musique Brésilienne Moderne*, Rio de Janeiro, 1937 (an edition for publicity and not commercialized)

13 LUCIANO GALLET, *Pai do Mato* (for voice and piano). Text by MARIO DE ANDRADE. Rio de Janeiro, Carlos Wehrs & Cia.

just as the following melody of a dance of the Miranha, which was listened to by SPIX and MARTIUS over a century ago (38, p. 14, note 9):



V

The seven-note scale is not the only trait shared by our musical system and the melodies of Brazilian Indians. However strange it may seem some of their melodies display the sentiment of chords that originate in the harmonic series (as we have seen as illustrated by O. BEVILACQUA in relation to the syrinx of the National Museum) and from tonality in general.

In this chapter, then, it is important to remember that it is very unlikely that tribes exist in Brazil that are wholly virgin of direct or indirect contact with the civilized people of the coast. The work of catechism was extremely active and reached far and wide from the first years of the Discovery; on the other hand, it was common for the tribes themselves to travel throughout the country, carrying and transmitting to other ones elements of Black and European culture. And since the Indians' well-known penchant for Music—commented upon by all chroniclers of the first centuries and contemporary travellers—was soon revealed and exploited intensively in the centres of catechism, it is not difficult to imagine that with their excellent hearing and facility for learning music they appropriated from European songs, or imagined others in the European mode spreading them throughout the forests where they were incorporated into the collection of traditional melodies, maybe modifying the structure of some of them.

Among the Parecis of the extreme West, for example, ROQUETTE-PINTO

managed to gather one of these melodies to which we referred above, almost entirely constructed on the notes of an E major chord (34, p. 326):

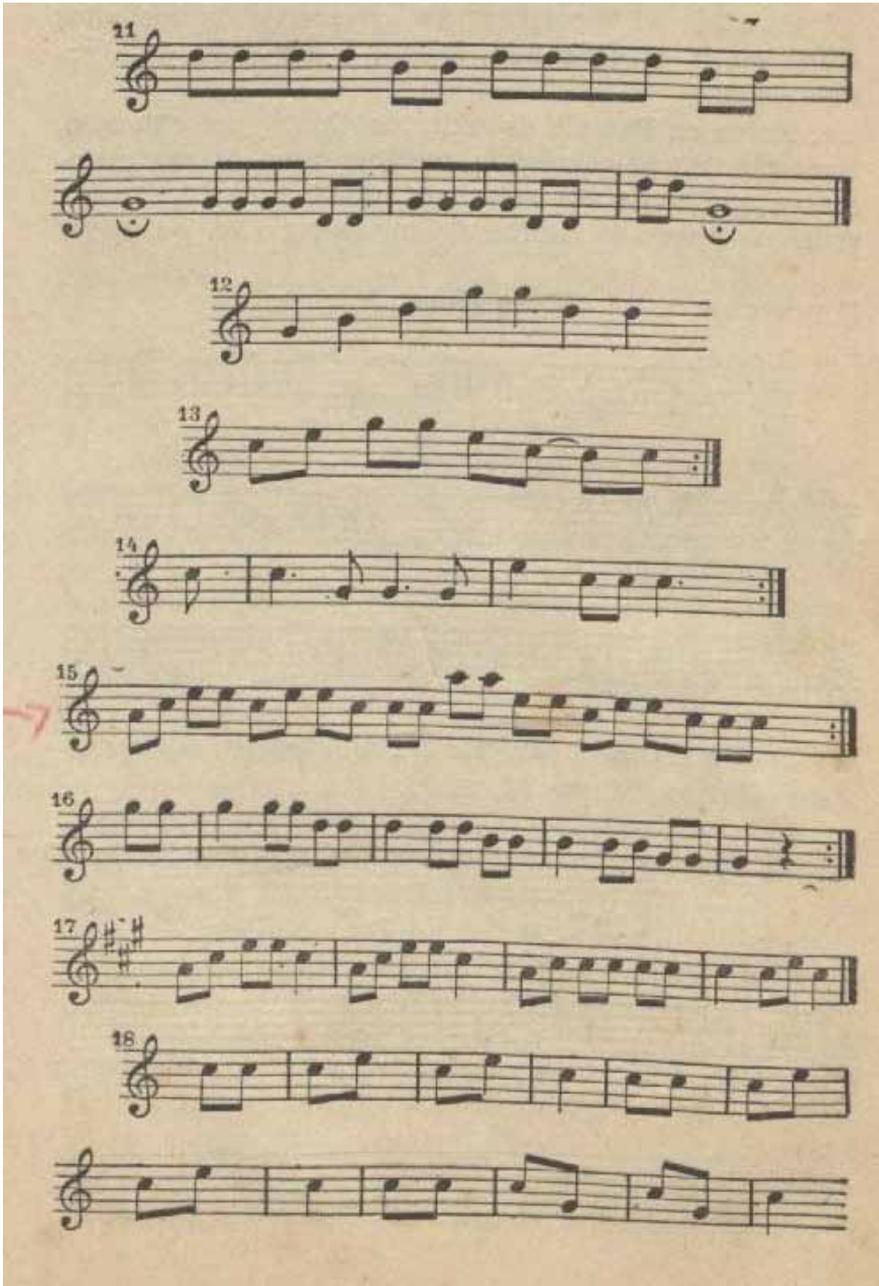
Phonogram no. 14.596, National Museum



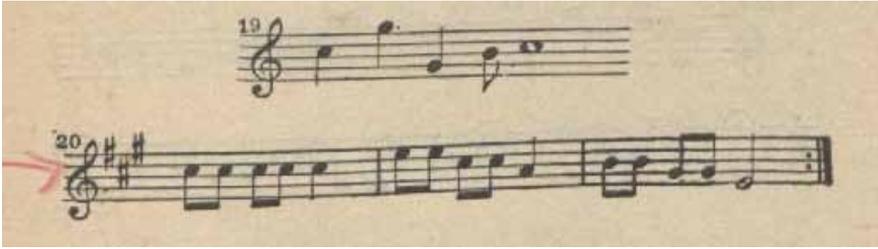
SPIX and MARTIUS also gathered melodies in these conditions (38, p. 12, n.3):



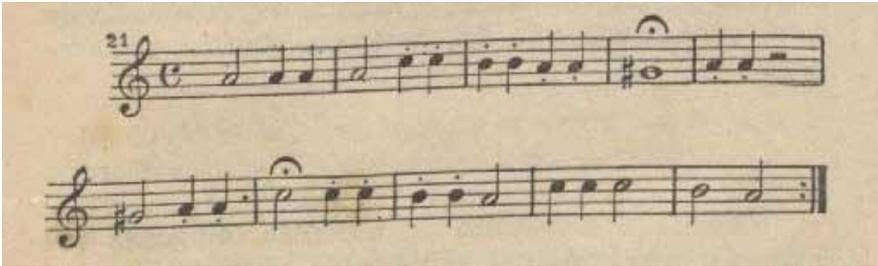
In MANIZER's study (22, pp. 317, 318, 319, 322 and 324) we find a whole series which one might call true vocal exercises...



Still more curious however is to discover in some melodies an indisputable sense of tonality, showing attractive functions to some sounds and setting out the basic tonic and dominant chords. As an example here are two fragments noted down by MANIZER (22, pp. 316 and 309):



and the following melody perfectly pitched in the key of A minor and gathered by SPIX and MARTIUS (38, p. 13, n. 8):



In MANIZER's substantial study there is a transcription of a song with a modular character reproduced here simply as a curiosity since it is impossible to generalize from it simply because it is the only specimen with these characteristics that we have and because as in other melodies gathered by MANIZER the influence of European music is more pronounced than in other revelations of autochthonous musical sentiment. This scientist worked only with Indians who had regular contact with white people, some of them in villages at the outposts of the Federal Government's Service for the Protection of Indians (much usually known through its acronym, SPI). When analyzing the melodies he left us we should not brush aside the strong possibility of additions and deformations due to the influence of European music. This is the melody in question. It evolves from F major to E flat major with a transition through D flat major! (22, p. 319):

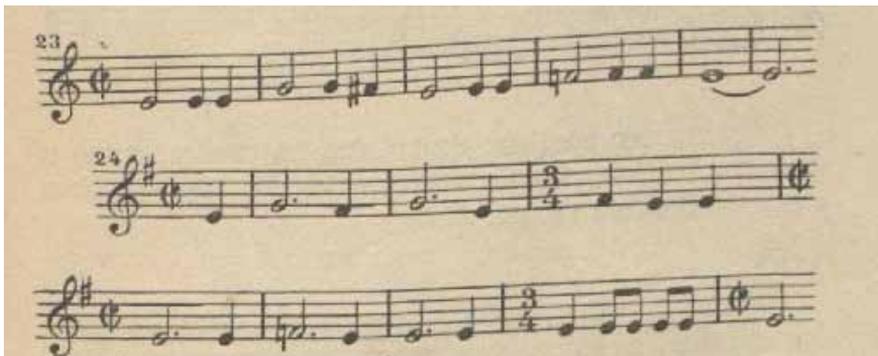


In general terms though KARL GUSTAV IZIKOVITZ in a recent study of musical instruments of South American Indians (15, p. 415) believes that these primitives have shown themselves quite conservative in their musical ideas. "External influences", he says, "have been by no means totally destructive".

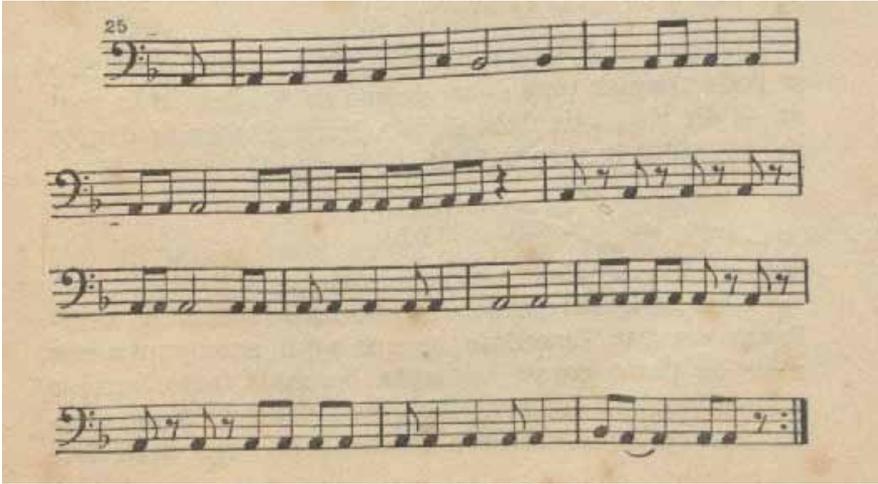
VI

There is a large number of indigenous melodies that avoid conjunct motion, proceeding systematically by intervals of thirds, fourths, fifths sixths and the octave. The examples we have given provide abundant proof of this. MANIZER himself says: "the third is visibly preferred" (22, p. 320). One might think that in such cases the melody had suffered a determining influence from primitive and deficient instruments, which were unable to emit certain contiguous sounds. But this is not to subordinate the musical principle to an arbitrary and anarchic construction technique for instruments. This technique (we recall what was said in a footnote on page 21) can be *deficient* without being *arbitrary*; OTÁVIO BEVILACQUA stressed this point in a quotation we transcribed there.

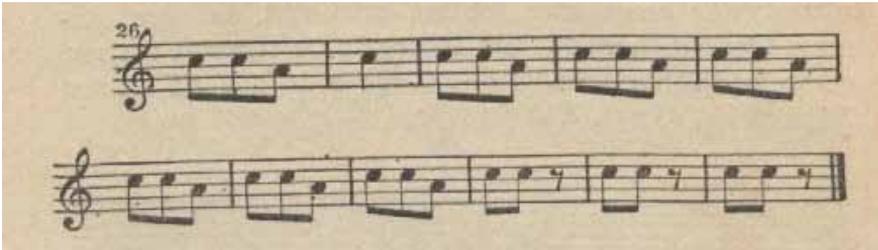
On the other hand, even though the Indians have a complete seven note scale, they often do not use it in their songs, preferring not to go beyond timid extreme limits which are defined only by an interval of a minor third as in phonograms nos. 14.600 and 14.605 from the National Museum (34, pp. 330-1):



and in the men's song of the Borôros heard by KARL VON DEN STEINEN, that is soon converted into a monotonous recitative on one note (40, p. 381):



Melodies (better we should say: *rhythmical motifs*) in two notes are common. MANIZER (22, p. 312) gathered the following one, which is very active in its rhythmic essence:



Even songs with just one note occur, like the one D. ANTONIO COLBACCHINI registered in his work on the Borôros (8, p. 114):



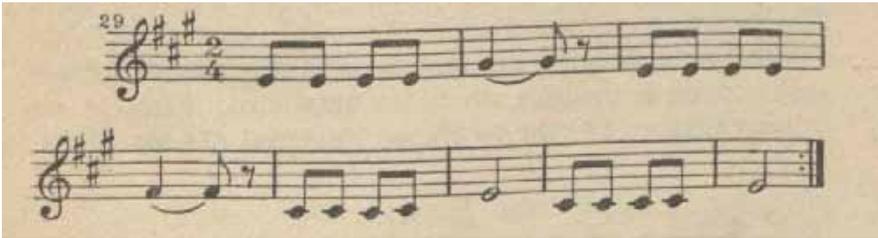
MÁRIO DE ANDRADE observes correctly “that you can’t call a thing like this Music. It is nothing more than diction, made horizontal within a defined sound value”. (1, p. 4).

VII

In the Pareci melodies reproduced by ROQUETTE-PINTO in his *Rondônia* (and which we follow closely here because it is the most important and best known of Brazilian contributions to the Amerindian musical ethnography) the succession of the most frequent sounds is probably a pentaphonic scale with a missing fifth degree:



Within this scale the previously cited *Ualalocê* and *Teirá* (examples 5 and 6) and phonogram no. 14.607 (34, p. 332) are transposed a descending major second.



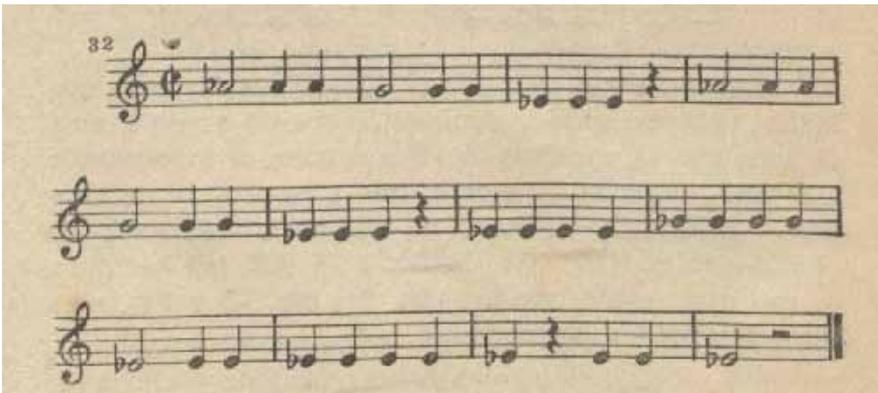
Chromaticism can be seen in various melodies appearing indissolubly united to the series of notes that constitute them (that is it is incorporated into the very essence of the scale; not the result of eventual alterations that emerge in the course of the melody). In the case of phonograms nos. 14.600 and 14.605, for example) which have already been cited (p. 31, examples 23 and 24), this series of notes is as follows:



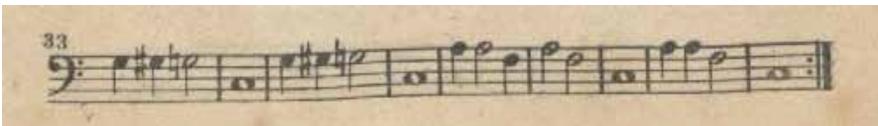
And for phonogram no., 14.599 (34, p. 329) it becomes a true *chromatic tetrachord* in the style of Greek theoreticians:



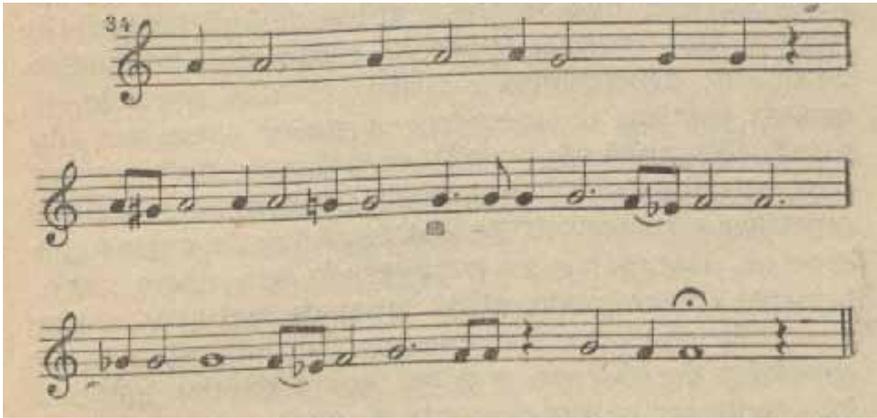
In the cases we have cited so far there is less chromatism (that is the tendency to pass from one note to another by the ascending colouring from the inferior or the descending to the superior than the alteration of certain degrees, with the intention of converting certain melodic passages from major intervals to minor ones. The fluctuation between *major* and *minor* in one of the melodies in *Reise in Brasilien* by SPIX and MARTIUS is a significant example. It is a prolonged melody clearly in the key of C major in which the sixth note though, A, which appears only once is flattened. This kind of chromaticism is one of the most important processes in the melody of Brazilian Indians. We see it in phonogram no. 14.599 of the National Museum (34, p. 329):



as well as in the already cited nos. 14.600 and 14.605 (examples 23 and 24). We provide the following Aparai melody because of its chromatic nature (in the true sense) reproduced from the study of Dr. A. DEUBER (10, p. 321):



And also this Taulipangue song gathered and studied by HORNBOSTEL (13, p. 436, n. 28):



VIII

Having concluded these simple observations on the nature of indigenous melody and its relations to the scale, we can now move on to the study of the rhythms to which it is subordinated and to which it owes a great part of its emotional force.

We have stated since the beginning of this thesis that “the music of Brazilian Indians, as with all music among primitives, is characterized by the constant repetition of a short motif more characteristically rhythmic than melodic.” This would be a global definition of the most ancient and rudimentary forms of musical manifestation; and the truth which it contains led to HANBS VON BUELOW’s celebrated aphorism so often cited and commented in such diverse ways: “in the beginning was rhythm”. MARIO DE ANDRADE observes that such pre-eminence “was natural because Rhythm is not just part of Music, but also of poetry and the dance”(1, p. 4).

Among the forest dwellers of Brazil, who have not yet known poetic forms, musical rhythm was associated exclusively to the dance. Certainly there was a sort of declamation of magical or ritual formulae in musical language, as well as the transition from the *spoken* to the *sung* as MANIZER points out (22, p. 305) “every time that emotion gets stronger”; in these cases, however, we can legitimately affirm that one is referring less to an undetermined rhythm, in the style of Gregorian chant psalmody, rather than to a dependence on verbal rhythms supposing the pre existence of organized poetic metres. The greater part of musical manifestations were linked to the dance; it had to be, since the dance is rhythmically regular, constituted by repeated

formulae and susceptible to analysis in the light of our own conceptions. Dance cannot be understood without perfect determined and active rhythm that can incite and maintain the regularity of the movements. Thus, we are able to affirm *a priori* that indigenous rhythms cannot be very different from our own.

The use of percussion instruments, particularly the stamping tubes (*bastões de ritmo*)—called *taquaras* in the old chronicles (apud 16, first column)—makes stronger our certainty. The *bastões de ritmo* were par excellence the instruments used by the Indians for their dances; indeed the very nature of these instruments shows us that their purpose was to accentuate one of the rhythms of the dance with the desired regularity.¹⁴ With this supposition we approach the notion of strong and weak accents, which, as we have already seen, is not the only notion that exists in primitive music, which we are studying, in the same way as it is not the only one we should take into account in the erudite music of Europe. Its origin is infallibly linked to the development of popular dances or popular poetry in certain languages.

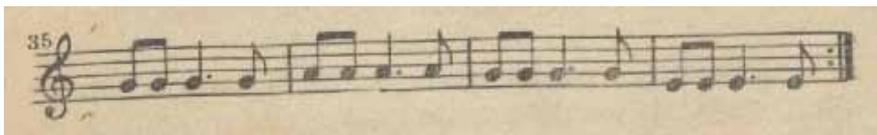
The remarks of travellers or explorers who maintained close contact with the Indians and tell of the presence of such rhythmical processes in their music are most important. KARL VON DEN STEINEN, for example, heard a Bacairi sing “beating the measure gently with his foot” and affirms that the “rhythm was very *marked* and *clear* (42, vol. XXXVI, p. 158). We can easily imagine what this great European who was so scrupulous in his observations wanted to say when he used the expressions *marked* and *clear*. The rhythm to which he referred was as marked and clear as the military marches of his own land or the finales of Italian opera in the nineteenth century...Of this there is no doubt.

Three centuries earlier, one of the first Brazilian chroniclers had said that the Indians “have such a sense of ordered rhythm that at times a hundred men dancing and singing in a line, one behind the other, come to an end together with a bang as if they were all in the same place” (6, p. 176). And LÉRY (20, p. 228) describes the happiness he felt “oyant des accords si bien mesurés d’une telle multitude, et surtout la cadence et le refrain de la balade».

All you have to do is glance at certain rhythmical formulae that can be

14 “There is the *toré-maracá*, which is a tree trunk which has in the centre a net which ends in rattles of the same fruit and which it marks the bars as it hits the ground.” (3, p. 54)

found in aboriginal music to understand the correctness of an interminable series of similar observations.¹⁵ We should remember the phonogram already cited no. 14.607 (example 29) and the round song observed by MANIZER (example 22):



Of course, not all the music of the Indians, even that which has vigorous rhythm to which we have referred, is as perfectly put together. The ternary phrase is common, that is a rhythm of three strong accents (or three bars if we want to use the terminology of civilized music); example is the beautiful song *Teiru* of the Pareci, and the phonogram 14.599 of the National Museum (examples 6 and 32).

MANZIER reproduces a phrase in which the second part doesn't correspond to the first, so that the rhythmical movement leavened by a process which has nothing barbarous about it and was employed many times by the European classics who owe it some of their most beautiful and developed melodies¹⁶ (22, p. 315):



In this other example, reproduced by the same ethnographer, and which has a most beautiful melodic turn, the rhythm is superiorly free, there not being any correspondence between one and other parts of the phrase (22, p. 320):

¹⁵ Il ritmo dei canti é fortemente accentuato dal rumore assordante dei bapo”, says P. COLBACCHINI (8, p. 114); *bapo* is the same thing as *maracá*; “In the dances, the cadence of the steps is encompassed by the singing” (3, p. 53). And SPIX and MARTIUS, in songs and dances of the Puris, note “a rhythmical movement in three time” (37, vol. 1, p. 345).

¹⁶ Cf R.R. SPALDING, *Manuel d'Analyse Musicale*. Édition française par M. Firmin Boz. Préface de M. ADOPHE BOSCHOT, membre de l'institut. Paris, Payot, 1927. P. 71 onwards.



IX

At this point we should turn to a certain type of syncopation that is used systematically in indigenous music and which consists of a short anticipation of the notes destined to be about melodic repose (end of parts of a phrase, of complete phrases etc.). Researchers have registered this quite frequently; it appears in Teirú (example 6), in the ritual screaming of the Pareci (example 4), in a short motif among the Botaocudos revealed by MANIZER (example 13) and in phonogram no., 14.595 (34, p. 325):



Another process which is dear to the melodies of the Indians (and which is related to what we have just described) is the repetition of the same note or repose once or twice as a kind of confirmation, transforming in feminine the ending which was before masculine. We seem this in the oft cited Pareci song of Teirú (example 6), in phonograms no., 14.596 (example 9) and 14.599 (example 32) and in many other fragments which it would be repetitive to transcribe.

Sometimes this repetition is reinforced by a second voice as you can see in the notation of the Pareci song in phonogram no. 14.597 (example 43) and in phonogram no. 14.596 (example 9).

It is possible that the insistence on repeating certain notes—as well as anticipating some of them thus leading to syncopation—is related to the notion that some sound values are more important than others. As they would be

fundamental to the melody they have a more rigorous stability. We may conjecture also that only these sounds could be produced by the rudimentary accompanying instruments with their limited resources.¹⁷

The song I have already cited (example 15) and registered by MANIZER is truly interesting in its syncopated rhythmic movement, understood in the apparent equality of value in its quinary division.

X

After analyzing the most developed indigenous melodies to which we have access, we have found a constructive logic whose principles, as we have seen, seem to be the same as the musical sense of men of all countries and all eras. The basis of these principles is *repetition*, which JULES COMBARIEU considers to be one of the laws of ancient magical practices, which passed through to music through the constant use of music, whether vocal or instrumental.¹⁸

Simple textual and undefined repetition is the constructive principle par excellence of the music of these primitives, who were contemporaries, let us not forget, of the practices of musical magic.¹⁹ But it is also interesting to note that in certain songs, the repetition is *elaborated*, that is, transformed or enriched by a certain number of resources which are analogous to those which we employ in our own music. We will now dwell on this question since it is of true interest and may only be conceived if we understand that the sense of organization of the world of sounds, of the relation and symmetry among musical figures, developed identically, even among the most distant peoples, similarly to what happens with ornamentation, according to the hypothesis that has already been formulated by CHARLES FRED. HARTT

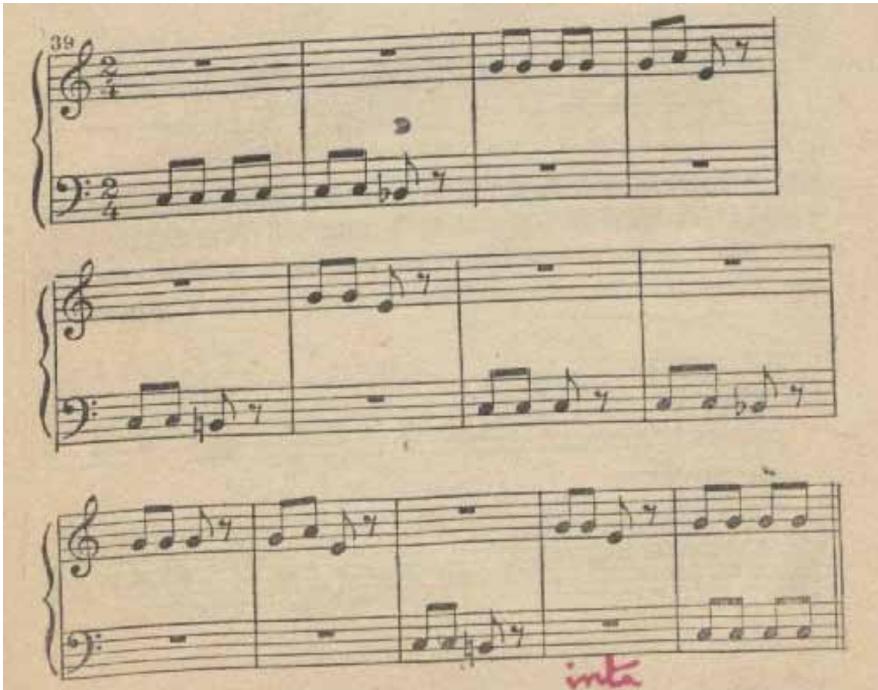
17 Thus hypothesis whose verification needs a quantity of better data than we have at hand, suggests the solution to a fundamental problem of indigenous music, which is that of the modalities of their scales, a topic we briefly touched upon a few pages earlier. It is worthwhile observing that the sounds that are reinforced by the second voice (or by the instruments) seem even on superficial examination to be resting points of the melodies; they are also the *initial* and *final* notes of these songs.

18 JULES COMBARIEU, *Histoire de La Musique. Des origines au début du XXe. Siècle. Avec de nombreux textes musicaux.* 4^a. Edition. Paris, Libraire Armand Colin. Tome I, p. 38. "On peut attacher à la magie musical le principe de la technique du rythme", he says on this issue.

19 LÉRY's songs (examples 2 and 3) and the phonogram no. 14.598 (example 4) are pure formulae for the enchantment and invocation of the spirits.

(24, p. 241)²⁰. Otherwise we will not be able to understand why these barbarians use the same resources that have served for the development of our musical ideas.

Let us look, for example, at the perfect sense of equilibrium of this song registered by KARL VON DEN STEINEN (40, p. 381) which was sung by Borômen and women:



The women repeat a perfect fourth [in a note to this edition the reader has inserted here a fifth above, exactly the same rhythmic design that had been performed before by the men; and the song proceeds with the breaking down of the primitive rhythm in similar figures, produced with the most

20 The Canadian naturalist, Charles Frederick Hartt (1840-1878), a disciple of Agassiz, travelled five times to Brazil between 1865 e 1874. In 1876 he moved permanently to Brazil where He became director of the National Museum of Rio de Janeiro. He is the author of the first research on Marajoara ceramics and a theory about its evolution that was widely red in the US during the 1870s. This theory was subject to new interpretations during the Vargas era when Luiz Heitor's thesis was defended. At this point in the thesis he refers to number 24 in the bibliography which addresses this very question. For more information on Hartt, see Daniela Kern, *Da vida para a história: a redescoberta de Charles Frederick Hartt na Era Vargas*, accessed on 06/06/2011 <http://www.eeh2008.anpuh-rs.org.br/resources/content/anais/1212359228_ARQUIVO_DavidaparaahistoriaDanielaKern.pdf> (Note by Rafael José de Menezes Bastos).

sensitive instinct of order and proportion.

The repetition of the *varied* motif as a base of a wider melodic development can be found in this Guarani *theme* cited by MANIZER (22, p. 314):

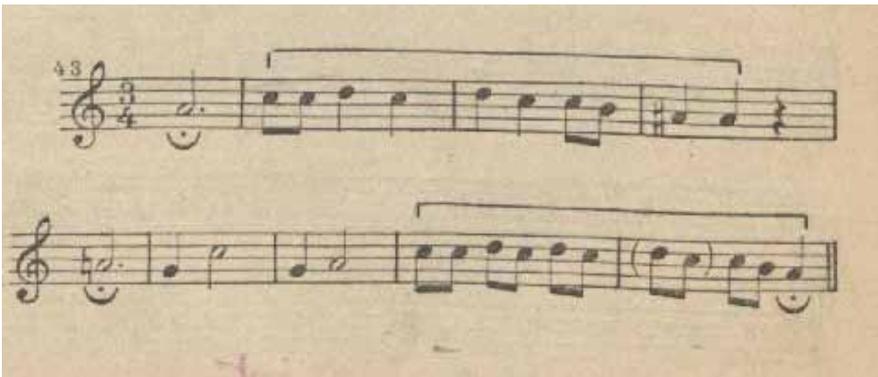


and thus modified in the repeat:



until the version cited above (example 36) emerges with the addition of the last bars.

In one of the songs collected by SPIX and VON MARTIUS (38, p. 14, n. 11) the motif is repeated by diminution:



By drawing attention to these particular examples, it is not suggested that they constitute familiar processes that are conscious to indigenous music. Even so, apart from demonstrating the universality of musical

conception, they also show without any doubt the excellent musical nature of the aboriginal psyche.

XI

In order to see how far the sense of balance and the developmental logic of indigenous songs has reached, let us now attempt an analysis of what is perhaps the most beautiful of them all: *Nozani-ná*, phonogram no. 14.597 of the National Museum (34, p. 327), harmonized by VILLA-LOBOS²¹ and which became the principal theme of one of the most beautiful pages of Brazilian symphonic music, the poem *Imbapara* by O. LORENZO FERNÂNDEZ.



21 H VILLA-LOBOS, *Chansons Typiques Brésiliennes depuis des chants Indiens, jusqu'aux Chansons populaires du Carnaval Carioca harmonisées par* No. 2. Paris, Editions Max Eschig.



For ease of expression, we refer to *bars*, metric entities that have nothing to do with indigenous music. They are indicated only to facilitate reading.

The motif of this song has three bars. The last one is made up of the repetition of the final note in accordance with the process we have already noted. The final fragment of the motif is repeated in an amplified form in bars 4 and 5. Then there is a repetition of the motif (bars 6 to 8) and the second part of the period replies to the first in a most natural and gracious melodic curve (bars 9 to 11); this time, however, instead of repeating the end of this phrase in measures 12 and 13, the same fragment which has already been the ending of the initial motif reappears. Keeping symmetry with the first part of the period, in which, after the expansion, the entire phrase is repeated, this second part maintains the same organization. (bars 14 to 16) Then comes the most amazing passage which is amazing because of the processes it uses gradually to simplify and reduce to a simple rhythmic formula - without melodic elevations (bars 19 and 20) - the head of the second phrase, followed by the repetition of the final note. The amplification of the first motif reappears (bars 23 and 24), and the song ends with the initial fragment of the second phrase but altered and with a final repeated note.

XII

E. DELEAU (9, p. 138) observes that “due to fight for survival, the savage’s auditory organ is developed to perceive all but not to have the faculty of analyzing notes.” This state of affairs results in the lack of precision in the

emission of vocal sounds to which we have already referred, and which led to the belief in the use of quartertones as propounded by LUCIANO GALLET.

From all that we have written in these pages, it is clear that we have entered into contradiction with some of the affirmations of the much missed composer and researcher who was so prematurely taken from our midst. In effect, we prefer to think that the supposed “diverse intervals of our; quartertones, perhaps”, heard by LUCIANO GALLET in the phonograms of the National Museum, are nothing less than the result of the mobility of sound among the primitives, who rarely emit sounds at a clearly classifiable and constant pitch. And we believe that their scales (excepting the small number of pentaphonic melodies) are analogous in their form to our own.

We reached this conclusion by studying the melodies that have been transcribed by various scientists and travellers and through the observation of musical instruments able to reproduce, at least together, all the notes of these scales. But this is not all; the aborigines join to the sentiment of the scale the sentiment of the relations of intervals, offering us diverse forms of singing constituted only by the notes of major or minor chords and also instruments that reproduce these intervals which originate in the harmonic series perfectly in tune.

We do not deny the precariousness of the musical texts drawn from works of ethnographers who collected them by ear and without specialized modern techniques.²² We are convinced, however, that in spite of all this they transmit the general structure of indigenous melody with sufficient clarity. SPIX and MARTIUS, for example, immediately recognized the perfect similitude of the songs of the Purís with the melodies that JEAN DE LÉRY had noted in the first century of colonization. “Pone must admire that fact”, they write “that the songs that LÉRY noted more than two hundred years ago among the Indians in the region around Rio de Janeiro are so similar to the ones we noted here.” (37, 1st. vol., p. 345, note 7).

And, in general terms, it is worthwhile noting that the musical texts

22 IZIKOVITZ observes (15, p. 400): “The invention of the p[hone]graph has enabled us to photograph music which our ears, accustomed as they are to the European tone system, cannot comprehend at once. The pitch of the tones can then be exactly measured by a tonometer”. It is worthwhile remembering however that the same passage, registered on another occasion, can show variations that invalidate the scientific precision of the tonometer. The *subtlety* of certain intervals in primitive music is more a case of insufficiency than of acoustic refinement; and it is not rare for melodies to be repeated differently by the same or other individuals.

transcribed successively by JEAN DE LÉRY, SPIX AND MARTIUS, KARL VON DEN STEINEN, NICLAU BADARIOTTI, BARBOSA RODRIGUES, ROQUETTE-PINTO, COBALCCHINI, MANIZER KOCK-GRUNEBERG, F. SPEISER, etc. used the same kind of notation.

MANIZER registered the songs that he heard with the help of a violin; and, in his magnificent study referred to so many times in these pages he left no doubt of the seriousness and relative precision of his musical notation; after establishing the melody with certainty, he says, he reproduced it by singing it while a third party confirmed the fidelity of the imitation (22, p. 304)

It is clear—and we have affirmed this already—that by pointing to the identity of indigenous scales to our own we do not intend to conclude that there is total identity between the two musical systems. Western civilizations have possessed the scale of seven tones since time immemorial and with it have built the most diverse constructive theories of their sound world. It is certain, however, that this scale represents (if the Indians did not borrow it from the first Europeans to arrive here) a surprising stage in the musical development of peoples whose culture remains in the Neolithic era. In spite of its magnitude, Inca civilization for example had still not reached the stage of the *heptaphonic scale*, which is current among our Indians.

On the other hand, we cannot admit the idea that indigenous music possesses a “rhythmic order with no relation to our own”, as LUCIANO GALLET has claimed. The easy rhythmic notation of certain songs could not have embarrassed the explorers for on the contrary is absolutely identical to our music.

Of course this observation should not be generalized; but the descriptions in all the books of travels and ethnography on the measure way in which the Indigenes gave rhythm to their songs and dances—shaking their rattles to the empty sound of the beating of their *bastões de ritmo* (which clearly marked the dominant rhythm)—give us indications that our observations cannot be brushed aside and that they contradict the thesis of LUCIANO GALLET. It would be more correct to admit a duality of rhythmical processes; there would be songs (especially the *poracés* – sung dances) that are based on regular rhythmical formulae like our own, and freely recited songs for ritual purposes, among which only the pitch of the notes was important, the duration depending on the will of the singer.

Our insistence in challenging LUCIANO GALLET’s conclusions should not be considered disrespectful of the dear memory of this special friend who

was so prematurely taken from us.

Apart from the necessity of recovering the authority of the musical texts we have cited, we believe that our free attitude is the finest homage we can pay to the work of a man who valued the rights of intelligence and serenely and sincerely oriented debates of opinion.

This is the case of the problems we have put forward in this thesis and which the author far from considers definitively resolved. He merely brought his contribution based not on dogmatic conclusions but on hypotheses that resulted from so many sources that only future more systematic research will tell us whether they are valid or not.

Bibliografia

Warning – To avoid long footnotes, the references are indicated by numbers, each one corresponding to a work cited in this BIBLIOGRAPHY; the page reference follows in italics and in brackets. E.g. (1, *pg. 3*), isto é, Mário de Andrade, *Compêndio de História da Música*, etc., pg.3.

1. ANDRADE (Mário de), *Compêndio de História da Música*. Segunda edição. São Paulo, L. G. Miranda, 1933.
2. BADARIOTTI (Nicolau), *Exploração no Norte de Mato Grosso, região do alto Paraguai e planalto dos Parecis. Apontamentos de História Natural, Etnografia, Geografia e impressões*. São Paulo, Escola Tipográfica Salesiana, 1898.
3. BARBOSA RODRIGUES (J.), *O canto e a dança silvícola*. Revista Brasileira, Rio de Janeiro, 1881. Tomo IX, pg. 32.
4. BARBOSA RODRIGUES (João), *Rio Jauaperí. Pacificação dos Crichanás*. Rio de Janeiro, Imprensa Nacional, 1885.
5. BEVILACQUA (O.), *A sirinx no Brasil. Exame de exemplares pertencentes à coleção do Museu Nacional do Rio de Janeiro*. Revista Brasileira de Música, Rio de Janeiro. Vol.IV (1937) 1º /2º fascículos, pg. 1.
6. CARDIM (Fernão), *Tratados da terra e gente do Brasil*. Introduções e notas de Batista Caetano, Capistrano de Abreu e Rodolfo Garcia. Rio de Janeiro, J. Leite & Cia., 1925.
7. CERNIOCHIARO (Vicenzo), *Storia della Musica nel Brasile dai tempi coloniali sino ai nostri giorni (1549-1925)*. Milano Stab. Tip. Edit. Fratelli Riccioni, 1926.

8. COLBACCHINI (D. Antonio), *I Bororos Orientali "Orarimugudoge" del Mato Grosso (Brasile)*. Torino, Società Editrice Internazionale, s. d.
9. DELEAU (E.), *Le sentiment musicale chez les sauvages*. Revista da Exposição Antropológica Brasileira. Dirigida e colaborada por Mello Moraes Filho. Desenhos de Huascar de Vergara. Gravuras de Alfredo Pinheiro e Villas-Boas. Rio de Janeiro, 1882. Pg. 137.
10. DEUBER (Arnold), *Musikinstrumente und musik der Aparai*. Apêndice à obra de Felix Speiser, *Im Duester des Brasilianischen Urwalds*. Stuttgart, Strecker und Schroeder, 1926. Pg. 320.
11. GALLET (Luciano), *Estudos de Folclore*. Rio de Janeiro, Carlos Wehrs & Cia., 1934.
12. GONÇALVES DIAS (A.), *O Brasil e a Oceania*. Rio de Janeiro, H. Garnier, s. d.
13. HORNBOSTEL (Erich M. von), *Musik der Makuschi, Taulipáng und Yekuaná (Aus dem Phonogramm-Archiv im Psychologischen Institut der Universitaet Berlin)*. Estudo inserto na obra de Theodor Koch-Gruenberg, *Vom Roroima zum Orinoco. Ergebnisse einer reise in Nord-Brasilien und Venezuela in den Jahre 1911- 1913. Unternommen und herausgegeben in auftrage und mit mitteln des Baesler-Instituts in Berlin. Dritter band: Ethnographie*. Stuttgart, Strecker und Schroeder, 1923. Páginas 397.
14. HOUSTON-PÉRET (Elsie), *Chants Populaires du Brésil*. Première Série. Recueillie e publiée par Mme. __ ____. Introduction par Philippe Stern. Paris, Librairie Orientaliste Paul Geuthner, 1930.
15. IZIKOWITZ (Karl Gustav), *Musical and others sounds Instruments of the South American Indians. A comparative ethnographical study by __ ____. Goeteborg, Wettergren & Kerber, 1935.*
16. LEITE (Serafim), *Cantos, músicas e danças nas aldeias do Brasil*. Artigo publicado no *Jornal do Comércio*, do Rio de Janeiro, em 15. XI. 1936.
17. LERI (João de), *História de uma viagem feita à terra do Brasil*. Traduzida em linguagem vernácula por Tristão de Alencar Araripe e oferecida ao Instituto Histórico e Geográfico Brasileiro. Rio de Janeiro, Tipografia Laemmertz & C., 1889.
18. LERIUS (Joannes), *Historia Navigationis in Brasiliam quae et America dicitur. Qua describitur autoris navigatio, quaeque in mari vidit memoriae prodenda: Villagagnonis in America gesta: Brasiliensium victus et mores, à nostris admodum alieni, cum eorum linguae dialogo animalia etiam, arbores, atque herbae, reliquaue singularia et nobis et nobis penitus incognita*. A Joanne

- Lerio Burgundo gallicè scripta. Nunc verò primum Latinitate donata, et variis figuris illustrata. Excudebat Eustachius Vignon. Anno CID ID LXXXVI.
19. LERY (Jean de), *Histoire d'un voyage fait en la terre du Brèsil, dite Amérique. Contenant la navigation, et choses remarquables, veuës sur mer par l'Autheur. Le comportement de Villegagnon en ce pais la. Les moeurs et façons de vivre étranges des sauvages Brésiliens: avec la description de plusieurs Animaux, Poissons diformes, Arbes, Herbes, Fruicts, Racines, et autres choses singulières, et du tout incongnues par deçà: dont on verra les sommaires des chapitres au commencement du livre.* Avec les figures, reveue, corrigée et bien augmentée par l'Autheur. Quatrième Édition, dediée à Madame la Princesse d'Orange. Le tout recueilli sur les lieux, par __ __, natif de la Margelle, Terre de Saint-Sene au Duché de Bourgogne. Por les Heretiers d'Eustache Vignon, 1600.
 20. LERY (Jean de), *Le voyage au Brésil (1556-1558).* Avec une Introduction par Charly Clerc. Gravures d'un anonyme du XVIe siècle. Paris, Payot, 1927.
 21. LERY (Jean de), *História de uma viagem feita à terra do Brasil.* Tradução ordenada literariamente por Monteiro Lobato. Rio de Janeiro, Companhia Editora Nacional, 1926.
 22. MANIZER (H. H.), *Música e instrumentos de música de algumas tribus do Brasil. Segundo notas e observações pessoais e o material do Museu de Antropologia e de Etnografia, anexo à Academia das Ciências da Rússia.* Tradução de A. Childe. Revista Brasileira de Música, Rio de Janeiro. Volume I (1934), 4º fascículo, pg. 303.
 23. MATTOS (Aníbal), *Arte colonial brasileira.* Belo Horizonte, Edições Apolo, 1936.
 24. MATTOS (Aníbal), *Das origens da Arte Brasileira.* Belo Horizonte, Edições Apolo, 1936.
 25. MÉTRAUX (A.), *La civilization matérielle des tribus Tupi-Guarani.* Paris, Librairie Orientaliste Paul Geuthner, 1928.
 26. MÉTRAUX (A.), *La religion des Tupinamba et ses rapports avec celle des autres tribus Tupi-Guarani.* Paris, Librairie Ernest Leroux, 1928.
 27. MONTEIRO DO AMARAL (Claro), *Usos e costumes dos índios Guaranis, Caiuás e Botocudos.* Revista do Instituto Histórico e Geográfico Brasileiro, tomo LXIII, segunda parte, pg. 263.
 28. PEREIRA DA COSTA (Francisco Augusto), *Folclore Pernambucano.* Revista

- do Instituto Histórico e Geográfico Brasileiro, tomo LXX, segunda parte, pg. 5.
29. PEREIRA DE MELLO (Guilherme Teodoro), *A música no Brasil desde os tempos coloniais até o primeiro decênio da República*. Baía, Tipografia de S. Joaquim, 1908.
 30. PINTO (Estevão), *Os indígenas do Nordeste*. Segundo tomo, Organização e estrutura social dos indígenas do Nordeste brasileiro. Edição ilustrada. São Paulo, Companhia Editora Nacional, 1938.
 31. PRADO (E. da Silva), *L'Art*. Capítulo XVIII da obra *Le Brésil em 1889*, publicada sob a direção de F. J. de Sant'Anna Nery para a exposição Universal de Paris a realizar-se neste ano. Paris, 1889. Pg. 519.
 32. RIVASSEAU (Emílio), *A vida dos índios Guaicurús. Quinze dias nas suas aldeias (Sul de Mato Grosso)*. Tradução e ilustração do autor. Prefácio do prof. Pierre Deffontaines. São Paulo, Companhia Editora Nacional, 1936.
 33. RODRIGUES VALLE (Flausino), *Elementos de Folclore Musical Brasileiro*. São Paulo, Companhia Editora Nacional, 1936.
 34. ROQUETTE-PINTO (E.), *Rondônia*. Terceira edição aumentada e ilustrada. São Paulo, Companhia Editora Nacional, 1935.
 35. SANTA-ANNA NERY (F.-J. de), *Folk-lore brésilien. Poésie populaire. Contes et legends. Fables et mythes. Poésie, musique, danses et croyances des indiens*. Accompagné de douze morceaux de musique. Préface du Prince Roland Bonaparte. Paris, Perrin et Cie., 1889.
 36. SOARES DE SOUZA (Gabriel), *Tratado descritivo do Brasil em 1587*. Edição castigada pelo estudo e exame de muitos códices manuscritos existentes no Brasil, em Portugal, Espanha e França, e acrescentada de alguns comentários por Francisco Adolfo Varnhagen. Terceira edição. São Paulo, Companhia Editora Nacional, 1938.
 37. SPIX (J.B. von) e MARTIUS (C.F.P. von), *Viagem pelo Brasil*. Tradução brasileira promovida pelo Instituto Histórico e Geográfico Brasileiro para a comemoração do seu centenário. Tradutora, d. Lúcia Furquim Lahmeyer, bibliotecária do Instituto; revisores, o dr. B. F. Ramiz Galvão e o prof. Basílio de Magalhães (que também foi o anotador). Quatro volumes. Rio de Janeiro, Imprensa Nacional, 1938.
 38. SPIX UND MARTIUS, *Brasilianische Volkslieder und Indianische Melodien*. Musikbeilage zu ___ _ _ Reise in Brasilien. S. 1. n. d.
 39. STADEN (Hans), *Viagem ao Brasil*. Versão do texto de Marpurgo, de 1557,

- por Alberto Loefgren. Revista e anotada por Teodoro Sampaio. Rio de Janeiro, Publicações da Academia Brasileira, 1930.
40. STEINEN (Karl von den), *Unter den Naturvoelkern Zentral-Brasiliens. Reiseschilderung und Ergebnisse der Zweiten Schingú-Expedition.1887-1888.* Zweite Auflage des Volksausgabe. Berlin, Geographische Verlagsbuchhandlung Dieter Reimer (Ernst Reimer), 1897.
 41. STEINEN (Von den), *Entre os Borôros.* Tradução do capítulo XVII da obra “Unter den Naturvoelkern Zentral-Brasiliens” pelo prof. Dr. Basílio de Magalhães. Revista do Instituto Histórico e Geográfico Brasileiro, tomo LXXVIII, segunda parte, pg. 389.
 42. STEINEN (Karl von den), *Entre os aborígenes do Brasil Central.* Revista do Arquivo Municipal, São Paulo, volume XXXIV e ss. (ainda em curso de publicação).