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Making

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The experimental music of Hermeto Paschoal e Grupo (1981–93): a musical system in the making¹

This article looks at the musical principles employed in the unique musical system developed by the Brazilian composer and instrumentalist Hermeto Paschoal. It focuses upon the analysis of a selection of pieces produced between 1981 and 1993, the period in which the composer worked with a group of five musicians in an ensemble called "Hermeto Paschoal e Grupo". I show how some of the harmonic, melodic, rhythmic and timbral elements of his music were derived from his intuitive childhood experimentations with the sounds of his environment. In later life they would develop into the musical use of unconventional sound patterns, such as those produced by everyday objects, environmental and animal sounds and human speech. I conclude with a discussion of how the composer defines the "authenticity" of his work in terms of a dichotomy between the "natural" and the "conventional", embracing both the music as sound and the social sphere of musical production.

Introduction

Hermeto Paschoal is a highly paradoxical figure within Brazilian popular music. Although he is an albino with considerable visual impairment, he claims that much of his music was inspired by visual images. His first musical experiences included the traditional improvised styles of north-eastern Brazil, such as *côcos*, *emboladas* and *repentes*. Today he creates complex compositions that often demand of the performer a high level of music literacy. While structuring his work around such popular Brazilian styles as the *baião*, the *frevo*

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¹ This paper is based on my MA dissertation, presented in April 1999 at the University of Rio de Janeiro, under the supervision of Dr Martha Tupinambá de Ulhôa, to whom I am especially grateful. It has been translated into English by Suzel Ana Reily.

and the *choro*, his music borders on contemporary art music and free jazz, in its use of dissonant harmonies, polyrhythms, unconventional timbres, atonal improvisations, aleatory techniques and other such resources (cf. Calado 1990). Having taught himself to play a vast array of instruments, Hermeto – as he is commonly known in Brazil² – has been referred to as a "witch" or "shaman" (*bruxo*) in the national press, and his public figure is surrounded by an aura of exoticism, which has made him the target of considerable criticism in orthodox quarters. Yet this playful and eccentric artiste, a rather picturesque virtuoso who plays duets with chickens, dogs and pigs, has also gained international recognition, having composed for symphony orchestras in New York, Berlin, Denmark and France (Rodrigues 1990).

Since his childhood, Hermeto has made music drawing on the sounds of nature, of domestic objects and of human speech, that is, on that which is most prosaic. In his music he draws on the familiar, rendering it exotic. His concept of atonality contrasts with mainstream views:

I am the opposite of many schools ... There are many people who think c, e, g, c is natural, but it isn't; it's just conventional ... For me, if you do: [sings] B^{\downarrow} , e', a^{\downarrow} , e, B^{\downarrow} , a, this is natural ... The atonal is the most natural thing there is.³

(interview, March 1999)

By drawing on his acute sense of pitch, he reproduces everyday sounds and combines them with the instrumental sounds of a band, a chamber ensemble or a symphony orchestra, thus integrating the sonic and the musical in a unique fashion. His main tool as a mature musician has been his heightened aural perception.

In this paper I deal with Hermeto Paschoal's musical principles and musical system, focusing upon works produced between 1981 and 1993. During this period Hermeto worked with a group of five musicians in an ensemble that was called "Hermeto Paschoal e Grupo". These highly proficient musicians brought their skills to bear upon the unique aesthetic universe of the north-eastern composer. The musicians in this quintet were: Itiberê Luis Zwarg (electric bass, tuba and bombardon⁴), Jovino Santos Neto (piano, keyboard, flutes), Antônio Luís Santana – or Pernambuco – (percussion), Carlos Daltro Malta (saxophones, flutes, piccolo) and Márcio Villa Bahia (drum kit and percussion).

I shall be dealing with two inter-related issues. The first pertains to Hermeto's *experimental* musical principles: their sources, development and most salient features. To address this issue I discuss Hermeto's childhood experiences and the musical influences he encountered during his professional career. The second issue pertains to how these musical principles were

² It is common practice in Brazilian academic writing for extremely well-known public figures, such as Hermeto Paschoal, to be referred to by their first names. This practice will be followed in this article.

³ The note sequence is an approximation of the call of a Brazilian bird known as uirapuru.

⁴ A bombardon is a brass instrument, related to the tuba, common in Brazilian brass bands.

transformed into a musical system by Hermeto and the musicians working with him during the period under investigation. This is addressed through a reconstruction of the processes of creation and music-making by Hermeto Paschoal e Grupo and through the analysis of a selection of the ensemble's pieces that exemplifies Hermeto's experimental techniques.

I base my notion of experimental music on that of Paul Griffiths:⁵

One generally uses the word experimental to refer to music that is significantly removed from the styles, forms and genres that have been canonized by tradition – except by the experimental tradition. Some composers, particularly those of the late 1960s and early 1970s, when experimental music was at a height, made a useful distinction between the vanguard, who worked within the tradition and the accepted channels of communication (opera houses, orchestral concerts, universities, radio companies, recording studios) and the experimental composers, who preferred to work in other ways.

(Griffiths 1995:150)

Griffiths refers to experimental music within the art music world, but his definition can also be applied to popular music, and it is particularly appropriate to the work of Hermeto Paschoal, not only because his experimental style diverges from the traditional and the conventional, but also because the sphere in which he operates is neither the sphere of the avant-garde nor that of the popular. Indeed, Hermeto maintained few links with *tropicália*, a clear example of an avant-garde movement in Brazilian popular music. In fact, Hermeto has had to struggle to create a space in which to bring his artistic and commercial project to fruition, even within the sphere of instrumental music, which also includes the *choro*, bossa nova, jazz and other styles.

In the final section of this article, I look at how Hermeto has come to articulate his innovative musical practices to a discursive framework that defines its "authenticity". While at its most orthodox, authenticity is invoked to make a claim for historical or cultural accuracy, it has become a common trope of much wider significance, circumscribing the core values associated with particular musics (and other forms of cultural expression) (cf. Stokes 1994:7, Taylor 1997:21–8). For Hermeto, the "authenticity" of his work is marked through an opposition between the "natural" and the "conventional", 6 in a manner that is capable of encompassing the regional, the national, the international and the universal.

⁵ See also Nyman 1974.

⁶ This line of inquiry was suggested by Suzel Reily in her comments on an earlier draft of the paper. I also take this opportunity to thank her for her meticulous and highly judicious editorial work and translation, which have contributed significantly toward the final version presented here.

From Lagoa da Canoa to the international scene

Hermeto Paschoal was born in Olho D'água, Alagoas, a small village near the town of Lagoa da Canoa, in the municipality of Arapiraca, on 22 June 1936. At the age of seven, he had his first performance experiences in the company of his father, an accordion player: he played the *pifes* (reed pipes), which he made himself as a child from local reeds, and he composed short pieces by beating on scrap metal from his grandfather's blacksmith's workshop. At around the age of eight or nine he began playing his father's eight-bass accordion (*sanfona de oito baixos*), also know in the north-east as the *pé de bode* (literally, goat's hoof), for local social dances.

In 1950, his family moved to Recife, the capital of the state of Pernambuco. With his brother, José Neto, Hermeto began to play for a local radio station, the Rádio Tamandaré. Over the next 15 years or so, Hermeto would teach himself to read and write music ⁷ and to play both 32- and 80-bass accordions, piano, flute, sax, bass, guitar, percussion and other instruments. He began his professional career as a practical musician, performing *choros*, *frevos*, *baiões* and *serestas* for regional radio stations, and he played in trios and jazz quartets and in dance and night-club ensembles in Recife, Rio de Janeiro (1958) and São Paulo (1961). Sharp perception, intense instrumental practice of a varied repertory and close observation of the work of radio singers, instrumentalists, arrangers and orchestra conductors, such as Clóvis Pereira, Guerra-Peixe and Radamés Gnatalli, allowed Hermeto to learn slowly the arts of instrumentation and arranging. The song festivals in which he participated as a performer and arranger between 1967 and 1970 consolidated his skills in the reading and writing of music as well as his practical skills as an arranger.

In 1966, Hermeto had his first (official) experience as a composer and arranger, 8 when he joined the Trio Novo (New Trio), which then became Quarteto Novo (New Quartet). His participation in the Quarteto Novo represents the mid-point in his career, marking the transition from an instrumentalist contracted by radio stations and night-clubs to an arranger and composer of international renown. Besides Hermeto (flute and piano), the Quarteto Novo included the musicians Heraldo do Monte (viola caipira) and electric guitar), Téo Barros (guitar and bass) and Airto Moreira (drum kit and

⁷ Even though already in 1952 the musicians of the radio stations of Recife and Caruaru were impressed by Hermeto's absolute pitch, they refused to teach him how to read music because of his visual impairment.

⁸ The track, "O ovo" (The egg) seems to have been the first of Hermeto's compositions to be recorded on disk; cf. *Quarteto Novo* (1993 [1967]) in the discography. I say "seems to have been" because, according to the pianist Jovino, there are some recordings of Hermeto with the regional group Pernambuco do Pandeiro (1959) and with the ensemble of his brother, José Paschoal Neto, as well as with Sambrasa Trio and Som Quatro. However, I have not been able to locate any of these rare recordings to establish whether any of the tracks on them are attributed to Hermeto.

⁹ A variety of viola common in south-eastern Brazil, especially the interior of the state of São Paulo.

percussion). The group dissolved in 1969. Hermeto told me that the nationalist agenda of the band's leader, Geraldo Vandré, was one of the main reasons for the group's short existence: "When I played a real modern chord, people would criticize it: 'no jazz chords'. But they weren't jazz chords, it was my head that called for them. Music belongs to the world. We don't own it. To want Brazilian music to be only from Brazil is like trying to put the wind in a bag and no one can put sound into bags" (interview, March 1999).

In an effort to give Vandré's musical project international exposure, Hermeto went to the USA in 1970, where he recorded his first solo album in 1971.¹⁰ He claimed that he went to the USA with his unique way of working in an effort to alter the trend that led Brazilian musicians to feel obliged to be instructed by their North American counterparts. The trip was an important turning-point for Hermeto, consolidating his career. In the USA he received recognition for his skills as an arranger, writing for orchestras and big bands, and he was recognized also by musicians of international renown, rapidly finding space in the musical scenarios of North America and Europe through his virtuosic improvisations on piano, flute and saxophone and his arrangements and original compositions. It was the heterogeneous mixture of jazz and free jazz¹¹ with north-eastern Brazilian oral traditions, along with virtuosic performance techniques and arrangements that combined big band with viola caipira, percussion and an orchestra of tuned bottles, which secured a special place for Hermeto in North American and European music circles. He did not simply hitch a ride on one of the many commercial labels of the international culture industry; he created his own style, an anti-label, which did not fit any of the existing categories, such as folk music, popular music, art music, samba, bossa nova, jazz, free jazz and so on. Indeed, he claims that he does not respect the boundaries of any genre, of any style or of any experimental project.

Nowadays I understand that the media do not embrace serious work. And this is true all over the world. This is why great musicians, like Herbie Hancock, Chick Corea, all friends of mine, even Miles Davis, despair ... They followed the trends, as though people hadn't been appreciating what they were doing. I think differently ... I'm with the people who want me. The people who want me are not the ones who are looking for what they might want. They are the people who want to want.

(Gonçalves and Eduardo 1998:51)

After several international adventures, in 1980, at the age of 44, Hermeto returned to Brazil, where, after a few attempts, he established a permanent group of musicians who performed continuously in Brazil and abroad from 1981 to 1993. During this period they recorded six albums and established themselves in the international arena.

¹⁰ See the cover notes of Hermeto Paschoal: Brazilian adventure (1971).

¹¹ This term was coined by the North American saxophone player Ornette Coleman in 1967, to refer to a new type of jazz with atonal and asymmetric improvisations, which also made musical use of noise. Cf. Berendt 1987:36–46 and Litweiler 1984:31–4.

Hermeto Paschoal e Grupo (1981–93): co-existence, rehearsals and the work environment

Over a 12-year period the daily routine of the members of Hermeto Paschoal e Grupo consisted of collective rehearsals from Monday to Friday between 2 and 8 p.m., preceded by individual practice sessions in the morning, in which the musicians studied their parts. With Itiberê, Jovino, Pernambuco, Carlos Malta and Márcio, Hermeto had, for the first time, a group of performers working together for several years on a daily basis. In 1981, Itiberê was 31 years old, Jovino, 27, Carlos Malta, 21, Márcio, 23. Their dedication to their work undoubtedly derived from their admiration for Hermeto Paschoal, 12 and playing in his band not only provided them with a unique learning experience and an opportunity for personal development, it also gave a significant boost to their own careers.

They were so committed to their work that all the members of the band moved to the vicinity of Hermeto's house in the distant neighbourhood of Jabour, Rio de Janeiro, so they would not lose time with transportation to and from rehearsals. This close and continuous co-existence tightened friendship and family bonds amongst the members of the band, and it also allowed Hermeto fully to develop his experimental language. Furthermore, Hermeto was able to push the musicians to an ever higher level of musicianship, transforming each composition into an étude, constantly requiring them to master the ever greater technical demands he placed upon them.

Like artisans, Hermeto Paschoal e Grupo did not divide their music-making between a composition prepared in advance and performance as the follow-up. Composition, improvisation, arrangement and rehearsals were integrated into a single simultaneous process. ¹³ Compositions and arrangements were not prepared beforehand by the composer; rather, they were created through improvisation during rehearsals, and then they were put to paper by the musicians. These scores were then used by the musicians in future improvisations, such that the whole process was characterized by a continuous tendency toward the unexpected and an element of surprise.

The musicians were also invited to participate as co-creators in the arrangements. In time, details regarding the dynamics, tempo, phrasing and so on of the pieces in their repertoire were defined by the musicians during rehearsals without Hermeto needing to be present. As the Grupo acquired a methodology, an effective mode of collective musical practice and a vast repertoire from which to work, Hermeto removed himself from the role of rehearsal supervisor. While the musicians rehearsed (and arranged) on the second floor, Hermeto composed (and improvised) in another part of the house. ¹⁴ Thus, Hermeto's

¹² In 1981 he was 45 years old and already had considerable national and international experience, having played with such musicians as Ron Carter, Chick Corea, Miles Davis, Art Farmer, Herbie Hancock, Wayne Shorter, Joe Zawinul and others.

¹³ This observation was made by Elizabeth Travassos during the defence of my dissertation.

¹⁴ Even today Hermeto composes almost one written piece of music a day. Because of this old habit, the six LPs recorded by Hermeto and Group between 1981 and 1993 represent only

"school" was not limited simply to the development of the Grupo's instrumental techniques; during their 12-year co-existence, the musicians in the Grupo enhanced their skills on the instruments they played when they entered the band, they learned to play new instruments and they also became arrangers and composers in their own right. The period of my research concludes in 1993, when two members – the pianist Jovino Santos Neto and the saxophone player Carlos Malta – left the group to begin solo careers of their own. 15

Features of the musical system

Eclecticism, timbral research and improvisation

By challenging traditional musical labels and boundaries, Hermeto Paschoal places his musical system between the worlds of popular music and art music. At times his innovations stretch the formulaic parameters of the popular, and at others he employs excessively popular techniques within the structural parameters of art music. Thus, Hermeto Paschoal's experimental project is unique. He has created a very personal musical system, in which dissonant harmonies and jazz-like improvisations are mixed with modal melodies and rhythms from north-eastern Brazil. Yet his music is multi-directional, also drawing upon elements common to contemporary art music, such as clusters, systematic dissonances, polychords, polyrhythms, unconventional uses of conventional instruments and the exploration of noises and timbres derived from a varied percussive arsenal of diverse sound objects.

His array of arrangements explores various instrumental combinations in very complex musical structures. In an excerpt of "Arapuá" (a type of bee) (Figure 1), ¹⁶ for example, Hermeto superimposes four distinct textural layers: (1) the right hand and (2) the left hand of the piano, (3) the electric bass and the baritone sax (whose rhythms are practically identical) and (4) the *jererê*. ¹⁷ Polyrhythm takes place in all the layers: the right hand of the piano is in triplets and the left in dotted quavers; the sax and the bass perform slower rhythmic figures and are constituted primarily of contrary movement. The *jererê* plays a rapid line of binary rhythmic divisions, in which the syncopated accents are

a fraction of the repertoire he composed over these 12 years. Indeed, Jovino has over 1,000 pieces he composed during this period.

¹⁵ See the discography, which lists some of their output.

¹⁶ A piece recorded on the album *Brasil universo* (1986). All of the examples presented in this article were derived either from manuscripts obtained from Hermeto and other members of the group with regard to their work between 1981 and 1993 or from transcriptions made from recordings of this period.

¹⁷ The *jererê* is an instrument made by Hermeto and Márcio out of four plastic food containers of different sizes.



Figure 1 "Arapuá" - measure 23 and 24 (0' 35" - 0' 38")

reminiscent of the rhythm of the *maculelê*. ¹⁸ Systematic dissonances are created by the chromaticism of the left hand of the piano together with the polymodalism of the bass and sax lines and the whole note scales of the right hand of the piano (in the last three beats of each measure), in which the voices criss-cross in the medium and low regions.

If one is to assess the ways in which Hermeto experiments and innovates within his musical system it is necessary to take note of the limitations he imposed upon himself. One example of this has been his refusal to use synthesizers, computers, samplers and other forms of modern musical technology. Despite his research into the use of new timbres and sounds, Hermeto rejects sound machinery, taking a stance that could be considered conservative, by restricting the use of electronic technology solely to the amplification of such instruments as the piano and electric bass. ¹⁹ Instead of exploring new technological resources, he has focused his creative energy upon the innovative use of a varied and entirely unconventional timbral arsenal, which consists of sound objects, such as pans, teapots, basins, bottles, sewing machines, hub caps, rattles, bells, animal horns, whistles, toy instruments, gas cylinders and much more.

Another important feature of Hermeto Paschoal's music is improvisation. Here the influence of North American jazz is unquestionable, though Hermeto's improvisations are not limited – as in traditional jazz – to a melodic reinvention of a given harmonic structure. In "Magimani Sagei", for example, on the album *Hermeto Paschoal e Grupo* (1982), he superimposed bass and

¹⁸ The maculelê is an Afro-Brazilian stick-dance from the north-east of the country.

¹⁹ The only exception to this is an old Yamaha DX 7 synthesizer.

percussion ostinatos, several dogs barking and a person imitating Amerindian words,²⁰ to construct the "harmonic base" of the piece, over which several flutes (bass flute, C flute, piccolo and bamboo flutes) improvise freely, integrating their timbres with the dogs' barks and the onomatopoeia and grunts of the voice through mordents, glissandos, trills and multiphonic resources, such as singing into the flutes in conjunction with the production of pitches.

Improvisation in Hermeto's work is not restricted to the jazz model and it should not be understood only in the context of performance, as it is also employed at the compositional and aesthetic levels, for one of Hermeto's main stylistic features is the systematic and spirited search for the unexpected. And this marked characteristic of his work is reflected both in his performances and in his compositions. As Jovino said to me: "It is necessary to compose and write music as though it were an improvisation and improvise as though the music were written out" (interview, June 1997).

Animal sounds

Along with his use of unconventional instruments and his unconventional use of conventional instruments, the use of a wide variety of animal sounds, "tuned" to the music, has become a stylistic signature of Hermeto's work. In "Cores" (Colours) on the album *Hermeto Paschoal e Grupo* (1982) (Figure 2),

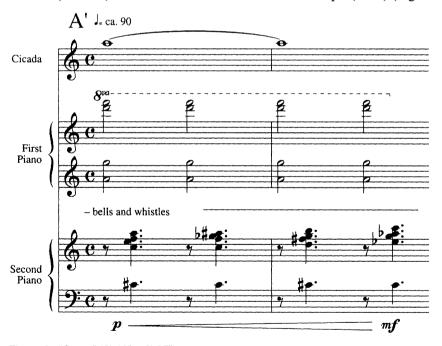


Figure 2 "Cores" (2' 18" - 2' 25")

20 During his childhood, Hermeto was in continuous contact with Amerindians, since his native town, Lagoa da Canoa, is very close to Palmeira dos Índios, which is still an Amerindian enclave in the state of Alagoas.

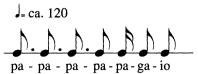


Figure 3 "Papagaio Alegre" (from Lagoa da Canoa, Município de Arapiraca (1984)



Figure 4 "Papagaio Alegre" (0' 59" - 1' 15")

Hermeto superimposes the sound of a cicada (tree cricket) over the instrumental sounds of the band, treating the cicada as a high pedal tone around the a" range. While the first piano and the left hand of the second piano remain on the same pitches, the cicada's whistling is in micro-tonal fluctuations and the right hand of the second piano ascends chromatically, in syncopations.

In Figures 3 and 4, from "Papagaio alegre" (Happy parrot), Hermeto overlays the band's performance with a recording of the calls of Floriano, his pet parrot, at the approximate range of bb', which is chanted to the rhythm of the *maracatu*. ²¹ The bass is in a C mixolydian mode with an augmented 11th, ²² while the piano adds a diminished 9th and an augmented 9th (db and bb) to this modal C scale, forming a symmetrical scale. The sax rises in triads, forming dissonances of parallel 7ths and 9ths with the left hand of the piano and descends in the symmetrical scale.

Another example of the use of animal sounds can be found in the piece "Arapuá". If one forms a chord by distilling the arpeggios of pedal notes in measures 1 to 16 of this piece, one sees why Hermeto related the piece to the deep buzzing sound of the *arapuá* bee. (See Figure 5.)



Figure 5 "Arapuá" - measures 1 - 16

The thick, rough timbre, the buzzing of the baritone sax in the lowest register of the instrument and the cluster formed by the juxtaposition of the notes of the other instruments also in their lowest registers makes it difficult for the listener to detect exact pitches, and the effect of this sound mass lies between harmonic sounds and noise, in a manner similar to the sounds produced by a swarm of bees. This dialogue between noise and music, between inharmonic and harmonic sounds, is crucial to the understanding of Hermeto's experimentalism. In "Arapuá" he does not superimpose the sounds of animals over the instruments of the band as he does in "Cores" and "Papagaio alegre"; rather, he uses the instruments themselves to sound like animals.

Musics of the environment

I am inspired more by other things to make my music. I did not study music to compose ... My inspiration comes from paintings, from the timbre of a voice.²³

²¹ The maracatu is a north-eastern Afro-Brazilian dance tradition.

²² The modal scale with the diminished 7th and the augmented 11th is typical of Brazilian north-eastern music.

²³ Statement made in an interview conducted by Luiz Carlos Saroldi on the programme "Ao vivo entre amigos" for Rádio MEC.

Despite his visual impairment, Hermeto frequently employs visual terminology to speak about his music, and he claims that when he began to compose as a child in Lagoa da Canoa, he drew on images rather than music.

The relationship between sound and image and the musical use of natural and everyday sounds take many forms in Hermeto's musical system. For example, in "Série de arco" (Archer series) from the 1982 album *Hermeto Paschoal e Grupo*, he uses music to recreate the rhythms, the ascending and descending planes and the contracting and expanding motions of the choreography of Olympic archery as performed by Jovino's sister (Figure 6).

Contrasts in pitch correspond with rhythmic contrasts. For example, already in the first two measures of the piece, over the pedal in fifths of the left hand, the motif in semiquavers of the right hand of the piano is constituted of fourths with adjacent seconds and has a descending movement, while the demisemiquavers in the third and fourth beats of the first measure and the 12-note divisions in the third and fourth beats of the second measure are polychordal structures and have ascending (measure 1) and alternating

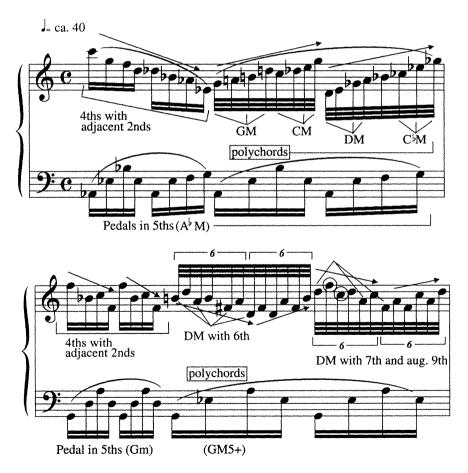


Figure 6 "Série de arco" (first and second measures) (0' 00" - 0' 10")

(measure 2) movements. The direction of the motifs is indicated by arrows in the transcription.

In the original manuscript transcription, Hermeto related each musical segment to a specific aspect of the overall choreographic sequence. In very small letters over the score, he indicated the spatial and temporal co-ordinates of the choreographic movements as they changed. The musical dialogue with the imagistic matrix organically structures the piece through stark contrasts between motives with (poly)rhythmic, melodic-harmonic configurations and specific directions.

An example of the way in which Hermeto incorporates the sound environment into his musical system can be noted in the repertoire he refers to as "music of the aura". In his "music of the aura", speech is perceived by the musician in terms of its rhythmic-melodic contours. To compose "Aula de natação" (Swimming lesson), for example, he recorded a lesson given by his daughter Fabíola, a swimming instructor, in the swimming pool of his home in January 1992. He then transcribed a section of the recording, notating the durations and the pitches in the speech of the teacher and the children. On the CD Festa dos deuses (1992), the track begins with the original recording of the swimming lesson, in which one hears the voices of the teacher and the children and the sound of the water in the pool. Then the same section is heard again with a piano doubling each of the notes of the spoken voices. As though it were an asymmetric "given song" from the rhythmic point of view, the atonal "melody" is accompanied by chords on a harmonium. The non-tempered pitches of the voice together with a tempered instrument reveal how our perception is culturally conditioned and how this conditioning anaesthetizes our perceptions.

According to Hermeto, "music of the aura" functions like a camera; it registers the "image" of sound that was hitherto invisible, thus presenting the musicality – or aura – of that which is not conventionally heard as music, such as the sounds of the human voice or of animals. However, the image is not simply a register of sounds, since the musician always creates something in the act of developing his "sono-photography". The aural musician is the photographer, the developer and the creator, simultaneously. He is the one who captures the sonic moment through the recording, who develops the negative of the captured sound, decodifying the pitches, durations, timbres and intensities of the speech, and who creates, transforms, filters and modifies the sonic image, imprinting his own imagination on the final result.

But how exactly did Hermeto come to generate these unconventional characteristics of his musical system?

Hermeto Pachoal's musical principles

The iron rods already had something to do with aural music. My mother was talking to a friend of hers and suddenly I said: "Mother, she is singing," and my mother, "My son, what's this? are you crazy?"

So between the ages of 45 and 50 I became worried, thinking I had a hearing problem. Could this sound of the aura that I have perceived since childhood, that people are singing instead of speaking, could it be only in my head that this happens?

(interview, March 1999)

To explain the "hybrid" characteristics of Hermeto's music, I had assumed initially that he must have had extensive formal musical training. Yet in my very first interview with Jovino Santos Neto, this assumption was strongly contested. Since I had taken it for granted, I expected that my task would be simply to establish the dates of his training, the names of his teachers and the institutions in which he had studied. I was entirely wrong in my assumptions.

According to Jovino, even though Hermeto's harmonic procedures are almost entirely based upon triads, they cannot be reduced to the superpositioning of triadic structures in a non-functional manner. Jovino suggested that they may have been derived from the eight-bass accordion (or $p\acute{e}$ -de-bode), which was the composer's first instrument after the reed flutes and scrap iron of his childhood. The $p\acute{e}$ -de-bode has two button systems: the first generates single notes and is used to produce melodic lines; the second produces major, minor and dominant chords for the accompaniment. Because it is not chromatic, the eight-bass accordion is quite limited. Jovino said that, in his childhood, Hermeto would go to his grandfather's scrap yard, and as he played different bits of iron, he searched for their fundamentals and partials on the accordion.

So he would take those bits of iron and he would hit them; he would do [imitates the sound of iron], and he looked for the harmonics of those pieces of iron on the little accordion: what the notes were, because a bell, a piece of iron, when it is hit, has various notes; it gives the principal, the fundamental, and a whole harmonic series, which depending upon the characteristics of the iron, will be completely atonal or not.

(interview, June 1997)

Jovino refers to acoustic terminology which requires some explanation.²⁴ When it vibrates, a sounding body does not produce just one note, but a whole series of notes derived from its fundamental, which are called harmonics or partials. The note we hear is the fundamental frequency of the other notes (the harmonics or partials), which are higher and often have less amplitude (volume) than the fundamental frequency. Harmonics and partials are both components of a particular fundamental frequency. We distinguish these components by the type of sound spectrum in which they are found. A spectrum is a group of sound components constituted by the fundamental frequency and its harmonics or

²⁴ I thank Dr Maurício Alves Loureiro, one of the examiners of my MA dissertation, for his observations on the use of acoustics and psycho-acoustics in Hermeto's work.

partials. I shall use the term "harmonics" in dealing with sounds in a harmonic spectrum, and "partials" for sounds in an inharmonic spectrum. Thus, sound can be understood as a three-pronged continuum: pure sound,²⁵ which has no harmonics or partials; sounds within a harmonic spectrum; and sounds within an inharmonic spectrum (Smalley 1986).

Because of the emphasis placed on pitch in the tonal system, which consequently requires tempered intervals, most musical instruments in the west, with the exception of some percussion instruments, produce a harmonic spectrum. In this type of spectrum, the harmonics are proportionally related to the fundamental frequency by multiples of whole numbers; this allows us to hear the fundamental clearly and at a well defined pitch. The harmonics meld into the fundamental, affecting only its colour, or timbre. The timbre of a sound depends upon the material of the sound source and its form of attack, as well as the relationship between its spectral components. In inharmonic sounds, such as those produced by bells, iron and metal objects, most natural and everyday noises and so on, the ratios of the partials to the fundamental are not divisible by whole numbers, as they are in harmonic sounds; thus they produce very different harmonic spectra. In these spectra it is very difficult for the listener to identify the fundamental frequency of the sound.

Since Hermeto claims that he discovered the acoustic properties of sound from his experimentation with iron rods, it is worth taking a closer look at how harmonics and partials are produced by this material. Jonathan Harvey (1986) has investigated the sound spectrum produced by the great tenor bell of Winchester Cathedral. Along with the fundamental, it emits a powerful secondary note of attack at 347 Hz (f'), with a strong beat (cf. Harvey 1986:175–90). "Beats" are the result of two simultaneous sound waves of slightly different frequencies.²⁶

According to Harvey's spectral analysis one notes the presence of the minor and major thirds, in which the minor third has the greatest amplitude (volume). With the sound spectrum of the secondary note of attack (347 Hz or f') overlapping the fundamental frequency (c), the oscillating modules of the partials become very complex at the moment of attack, and it is only as the sound decreases and the higher partials decrease in volume that one hears clearly the lowest frequency of the spectrum. This effect, which is common to the sound of bells, cymbals, gongs and metal objects generally, is called the "mask" effect, in which other partials momentarily conceal the fundamental frequency. If in harmonic spectra the pitch of the fundamental frequency is perceived clearly, in the inharmonic spectra of bells, the spectral components are differentially extended in time.

²⁵ The "purity" of pure sounds, however, is rather abstract, because as soon as pure sounds vibrate in the atmosphere, they are modified by the means of sound diffusion, by the acoustic conditions of the space in which they are heard and by the auditory system.

²⁶ Beats are psycho-acoustic effects that occur differently for each sound register, and they also depend on the instruments or sound sources which produce them. On "beats" and the "mask" effect, see Cogan 1976:370–85.

As fractional relations between the fundamental and its partials increase, we have what is understood in acoustics as "noise". In noises, the multiples of the partials are so irregular that it is virtually impossible to identify a single pitch (as in harmonic spectra) or even this pitch along with a few of its partials (as in the inharmonic spectra of bells, iron and metal objects). The notion of colour in noises is linked to their frequency regions. A large frequency band produces "white noise", while narrow frequency bands are known as coloured noise.²⁷

Jovino claimed that Hermeto began to develop his harmonic system when he attempted to transpose the inharmonic sounds he produced by hitting bits of scrap iron against each other onto the eight-bass accordion, both in the form of triads and as isolated notes. Hermeto later confirmed this proposition in an interview I conducted with him:

When I was small, around eight or nine years old, I was playing *forró* and it was like this: my brother played the eight-bass accordion and I played the tambourine, and then we exchanged. We played for dances, weddings, and when I played the eight-bass I "bent" the eight-bass. ²⁸ Then many people would run up to me and say: "Take this white fellow away; let his brother play and he can play the tambourine, because he [Hermeto] is playing some very crazy music". *I derived them from iron, from the sounds I got from hitting iron, those harmonies* [my emphasis].

(interview, March 1999)

See, for example, the beginning of the first movement in the piece "Ferragens" (Scrap iron) (Figure 7), written for piano solo, in which Hermeto attempts to reconstruct musically the sound environment of percussed iron.

The melody of the right hand is made up of a series of 11 different notes, and it has been harmonized with chords with adjacent seconds; the chords are undefined from the tonal point of view and they bear no functional relation to

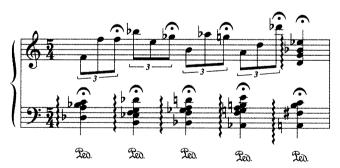


Figure 7 "Ferragens" (first measure)²⁹

^{27 &}quot;White" and "coloured" noises are part of a German acoustic terminology coined in the 1950s. Cf. Stockhausen 1996:141–9.

^{28 &}quot;Bending" is a term used in popular music to indicate the introduction of strange notes into a specific harmonic or melodic context.

^{29 &}quot;Ferragens" was composed, but not recorded, during the period under investigation.

the notes of the melody. These clusters are idiomatic, playing a double role, firstly as a sound mask, hindering the perception of pitch, and secondly, through their ambiguity they blur the boundary between harmony and timbre. The harmonic profile constructed through the major and minor adjacent seconds and other dissonant intervals is similar to the morphological spectrum of coloured noise, because of the beats produced by these intervals when the chords are attacked. In these "beats" the frequencies are close to one another and they oscillate rapidly and unequally, causing a "tremolo" effect similar to the sound of the bell of Winchester Cathedral. In "Ferragens", the perception of the fundamental frequency, which is harmonic from the acoustic point of view, corresponding to the functions of the tonic in establishing hierarchy within the tonal system, gives way to the coloured effect of noise spectra and to the morphology of granulated sounds.³⁰

The characteristic soundscape of bells (an attack followed by a long decline) is also present in "Ferragens", since each of the chords of the lower staff is played only once, and they are added to the notes of the right hand, which are also played only once. The last of the three notes of each triplet is prolonged at the will of the performer (see the fermata), as are the arpeggios, both sounding simultaneously during the decline of the sound. The pedal of the piano is kept lowered until the performer moves to the next beat, such that the sound produced by both hands is held and prolonged, creating a bell-like effect.

In Figure 8, also from "Ferragens", a tonal relation between the triads (E minor, G major and C major) of the right hand is prevented from being established, for they are obscured by the dissonances of the dense harmonic texture. Furthermore, the presence of strange notes (in the squares) played after or within the triads also serve as a distraction, affecting the perception of the triadic structures. The notes of the melody are not dependent upon the notes of the chords in the lower staff and they refer to the secondary notes of attack common to the sound of bells. As in the mask effect, in which the fundamental frequency is obscured by its partials, in "Ferragens", we lose sight of the original simple – triadic – elements of complex vertical combinations. The inharmonic spectra of

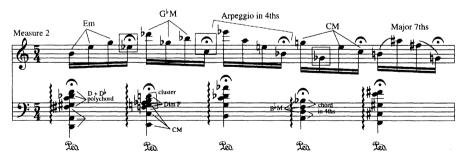


Figure 8 "Ferragens" (second measure)

³⁰ Granulated sounds can be obtained in many ways: by rubbing or scratching a sound object; instrumentally through clusters, percussion rolls and trills; through rapid and continuous attacks separated by short pauses; electronically by superimposing close pure sounds at rapid and irregular speeds, etc.

percussed iron are, in this measure, culturally *filtered* by the composer through the triads, which have been harmonically superimposed on to polychords, clusters, chords and arpeggios of fourths and other dissonant combinations.

"Ferragens" is a good example of how Hermeto manages the pure soundnoise continuum. As in the previous example, "Arapuá", in "Ferragens", he achieves an interpretation of the different types of sound spectra, diluting the boundaries between inharmonic and harmonic sounds, between the universes of the sonic and the musical. Similarly, Hermeto wrote the chord below (Figure 9) for the coda of "Cores" in an attempt to transpose to the piano the inharmonic partials of a percussed iron rod, which he was able to distinguish with his acute aural perception.

Chord formed by the partials of iron rods

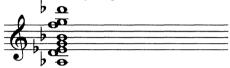


Figure 9 "Cores"

In Figure 10, also from "Cores", Hermeto distributes the notes of the chord formed by the partials of the percussed iron rod on to two pianos (one electric, the other acoustic), further overlaying this "inharmonic" chord played by the two pianos at different registers with the untempered whistle of a cicada and the soprano sax in a ff dynamic in the highest range of the instrument. By using the sounds of animals and of percussed rods in "Cores", Hermeto shows how these inharmonic sounds influenced his experimental musical system. The familiar is made exotic and vice versa, for as we have seen, Hermeto claims that "the atonal is the most natural thing there is".



Figure 10 "Cores" (4' 57" - 5' 10")

It was during his childhood that Hermeto discovered the musical principles that would form the basis of his musical system, but the sound experiences that occurred decades ago in Lagoa da Canoa have been continuously renewed by the composer in the big city. His amplified "aural" perception, which first emerged in childhood, followed him into adulthood:

Up to the age of fourteen I stayed in Lagoa da Canoa, my land, in contact with nature. Everyone thinks that nature is only that. It isn't. It can even be inside a car on Avenida Brasil, in the rush hour during a rain storm. For me nature is everything you see in front of you. It is daily life.

(quoted in Gonçalves and Eduardo 1998:48)

Between the "natural" and the "conventional"

Hermeto grew up with the sounds of such north-eastern popular styles as the embolada, coco, repente, ternos de pífanos, frevo, maracatu, xote, xaxado and many others. But it was also in his childhood that he began to experiment with and develop his unique way of hearing. It was perhaps because of his albinism that the world of sounds became so central to his life from such an early age, since it affected his vision and it prevented him from playing in the sun with other children. To compensate for these limitations, he developed sound games with reed flutes, iron rods and animal sounds, while also engaging in musical activities within the family circle, particularly with his brother and father. Later, in Recife and Caruaru, Hermeto was not allowed to pursue formal musical training, also because of his visual deficiency. Thus, he was self-taught, following a long tradition in the North-east of visually impaired musicians and great popular improvisers, such as Cego Aderarldo, Cego Oliveira among others (Elizabeth Travassos, personal communication). In Brazil's large urban centres, he came into contact with new styles, such as the *choro*, the *seresta*, jazz, gypsy music and so on, as well as with new systems for the social organization of musical production. In this context he developed his techniques as an instrumentalist, arranger and composer. Instead of compartmentalizing the sound worlds and musical experiences he encountered, Hermeto opted to fuse them with one another, superimposing them upon yet other organizational parameters derived from the acoustic properties of sound.

One could argue, therefore, that a number of factors of a biological, psychological, cultural and economic nature contributed toward Hermeto's development as a musician, and toward the ways in which particular unconventional sound patterns would become paradigmatic to his musical system later in life. But what probably began as intuitive experimentation would later develop into a more-or-less coherent, complex and wide-ranging discourse to define the "authenticity" of his innovative musical project, both in terms of its sounds and of the social relations of its production. The key oppositions that emerge with frequency when Hermeto discusses his work

today centre on a dichotomy between the "natural" and the "conventional", embracing both the music and the processes of musical production.

Perhaps one of the first critical moments to mark the contours of this discourse emerged out of Hermeto's experience with Geraldo Vandré, while he was a member of the Quarteto Novo between 1966 and 1969. According to Hermeto, Vandré objected to his use of dissonant harmonies, because they were too jazz-like. Vandré proposed to create "authentic" Brazilian music by drawing on the rural folk material of the country, avoiding any form of external influence. In those politicized years of the military dictatorship anything that served as an icon of the culture of the colonizer – such as jazz, electric guitars, rock 'n' roll, iê-iê-iê, jovem guarda and tropicalismo – could be furiously bombarded by intellectuals, students and artists of the urban left, of which Vandré was an ardent militant (Calado 1997:106-13). However, for Hermeto, who grew up in a rural environment, "folk" culture did not carry the same "authentic nationalist" associations that it did for Vandré. If for the artistic urban middle classes the search for the "national" meant the discovery and preservation of the culture of a distant rural "other", for Hermeto the same project implied confinement and repetition; it was not something one needed to re-invent and produce "artificially".

But just as Hermeto was marking his opposition to Vandré's nationalist "purism", he also rejected the other alternative taking root in the country at the time, namely tropicália, led by Caetano Veloso and Gilberto Gil. Tropicália invoked the Modernist cannibalism of Oswald de Andrade, mixing musics disseminated by radio, records, television and cinema with samba, rumba, baião, pontos de macumba, bolero and rock (Favaretto 1996:106), while drawing also on the vanguard of the art music world and the concrete poets of São Paulo. In 1967, the Quarteto Novo was approached by Gilberto Gil to accompany his song "Domingo no parque" (Sunday in the park), which was competing in a song festival on TV Record (Calado 1997:121–2).³¹ Drawing on a model from the Beatles' most recent LP, Sgt Pepper's Lonely Hearts Club Band (EMI, 1967), Gil intended to combine the basic rhythm of the piece, an afoxé de capoeira, with the north-eastern sound of the Quarteto Novo, an orchestra and an electric guitar. The project was vehemently rejected by the Quarteto, indicating the group's disdain for *iê-iê-iê* and rock music. Hermeto's objections to tropicália, however, rested more heavily upon its carnivalesque celebration of modernity and commercial popular music than on its use of foreign elements.

Hermeto's conflict with the urban intelligentsia represented by Geraldo Vandré on the one hand, and by Gilberto Gil on the other, marked the path he would forge for himself soon afterwards. The "authenticity" of his project

³¹ The song festivals of the mid 1960s and early 1970s were the stage for heated aesthetic—ideological debates among rival factions within Brazilian popular music. The 1967 festival on TV Record is especially noteworthy in this regard, since it indicated the equilibrium in the confrontation between the *tropicalistas* and the "nationalists": Gilberto Gil's "Domingo no Parque" took second place and Edu Lobo's "Ponteio", which was accompanied by Quarteto Novo, came in first place.

would not be defined by the parochialism of nationalist "purism", by an adherence to technological modernity or by the easy option of commercial "sell-out" (Taylor 1997:23); rather, it would be structured around eccentricity, the (natural) sounds of everyday life and (non-commercial) virtuosity. The first clear signs of this project began to take shape during his time in the USA, where he rejected the chance to take the quick path to (subaltern) stardom, turning down the offer to become the pianist for Miles Davis's fusion band that recorded for the great giant, Sony. Instead, he initiated his career as a composer with a small recording company, writing a piece for 40 bottles to be played by a big band.³²

As noted previously, Hermeto has refused to employ modern electronic technologies, such as samplers, synthesizers and computers. This rejection is grounded in his view that the music industry sells the electronic effects of these and other types of equipment to promote and maintain the low quality of the performers and of the musics reified by the means of mass communication. Furthermore, he has criticized the subordination of instrumentalists and arrangers of regional groups, big bands, chamber ensembles and radio orchestras by the omnipresent figure of the music producer and by synthesized and sampled sound tracks. His discourse illustrates the problematic contrast between the music market of the 1940s and 1950s, when the radio was the most important medium of mass communication and most of the music it broadcast was performed live, and the era of the television, where pre-recorded music predominates.

Hermeto's disdain for commercialism placed him in permanent conflictual relationships with the large multi-national recording companies with which he worked at different times during his career (EMI in 1967; Polygram in 1973 and 1992; WEA from 1978 to 1980). Indeed, the last CD of Hermeto Paschoal e Grupo, *Festa dos deuses*, produced by Polygram in 1992, almost didn't make it to the record shops, because Hermeto broke his contract with the recording company right after it had been pressed, claiming that the company had boycotted its release aboard. Seven years later, Hermeto's CD, *Eu e eles* (MEC, 1999) was launched, with state subsidies, by Rádio MEC, the broadcasting service of the Ministry of Education and Culture; five of the six LPs recorded between 1981 and 1993 were produced by the independent label Som da Gente. These examples indicate some of the problems Hermeto has had in consolidating his artistic project in the commercial arena.

His mode of operation has had consequences for the dissemination of his music by the national mass media. With regard to the radio, his music is restricted to sporadic programmes on non-commercial stations, such as the state-owned Rádio MEC. As far as television is concerned, he occasionally appears for short calls during jazz festivals or for sporadic interviews on a few conventional channels or on cable TV. It is only in newspapers and specialist magazines that he has received greater attention, but even in these media his musical discourse undergoes commercial filtering.

³² The track "Velório" (Wake) on Hermeto Paschoal, Brazilian adventure (1971).

Referred to as a "witch" by the national press, he is generally presented to the public as something of an exotic figure. No doubt he has played upon this image, reinforcing it through his use of colourful clothes (especially his shirts) and by his small rotund stature and his long, unkempt, white hair. The image of primitiveness and spirituality (Taylor 1997:23-8) he represents fuses with the collective urban imagination, and he is perceived as the inhabitant of a natural, pacific and virgin "New World", surrounded by animals and Indians, the prototype of the noble savage or the shaman who speaks with animals through sounds. If, on the whole, newspapers and specialist magazines have treated him with a sympathy that he has even reciprocated through his LP Só não toca quem não quer (Only those who don't want to don't play) (1987), where he dedicated each track to a different journalist, the full range of his critical discourse has not been sufficiently contemplated by the press. In effect, the print media have tended to filter out the heretical aspects of his shamanic persona, reducing them to picturesque eccentricities or to sympathetic caricatures, which go down well with a readership from the exclusive beaches of Rio's South Zone and from the urban middle classes in general (even though Hermeto is not a native of Rio, he doesn't live in the South Zone and he cannot even go to the beach).

Regardless of how he has been portrayed by the media, it was when he established the ensemble Hermeto Paschoal e Grupo that he was finally able to bring his project to fruition in full. Within the group, Hermeto strived to recreate the north-eastern rural tradition of family-based musical craftsmanship.³³ If, on the one hand, this communal orientation to music-making served to strengthen the bonds amongst the musicians, on the other, it marked his rejection of the anonymity of industrial labour and consumer society. Furthermore, Hermeto's style of leadership did not place his collaborators in the role of mere replicators of prepared musical texts; rather he encouraged them to create new roles for themselves. In this way Hermeto Paschoal e Grupo operated collectively as performers, arrangers and composers, creatively subverting established hierarchical systems, while producing music of considerable complexity and virtuosity.

A música livre de Hermeto Paschoal (The free music of Hermeto Paschoal) (1973), Lagoa da Canoa, Município de Arapiraca (1984), Brasil universo (Universe Brazil) (1985), Mundo verde esperança (Hope green world) (1989): these are some of the titles of Hermeto Paschoal's albums. They indicate the local, international and "universal" co-ordinates which he attributes to his music: "local" because it is deeply rooted in the north-eastern rural culture, more specifically, and in Brazilian urban music, more generally; "international" because it is open to styles from around the world; and "universal" because it employs organizational parameters derived from (universal) acoustic principles, however culturally filtered they might actually be.

Using his perception of the "aura" of sound in its pure sound-noise continuum as his primary tool, since childhood Hermeto has photographed sounds which are not conventionally heard as music. As a boy he revealed the contours of the human voice, of animal sounds and of iron rods through

³³ This observation was made by Elizabeth Travassos during the defence of my dissertation.

bamboo flutes and the accordion. By taking alterity as his paradigm, he later transformed the equivalence he perceived between musical sound and noise into a wide-ranging principle, using it to structure his unique musical system. In Hermeto's music a *coco*, a *frevo*, a *maracatu* or a *baião* can be vertiginously mixed with a *choro*, a samba, jazz, free jazz or even high art musical practices in the same way that a noise can be used as a sound with definite pitch, or the other way round. Thus, by creating a symbolic space that superimposes the "natural" and the "conventional", the rural and the urban, the local and the universal, the deterritorializing characteristics in the repertoire of the multi-instrumentalists, arrangers and composers in Hermeto Paschoal e Grupo shifted aesthetic, geographic and economic barriers, affirming the group's singularity within Brazilian music of the twentieth century.

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