

Dance ↔ *Graphein* On Nexus and Body Movements An Introduction

This book was born with the aim of systematizing and offering to researchers and the public at large a broad textual description and photographic documentation of Analivia Cordeiro's production from 1973 to 2022. As such, it can be considered a sort of catalogue raisonné. Her first large solo show in Europe, at ZKM | Center for Art and Media Karlsruhe (Germany), to be followed by her exhibition *Bodygraphies* at the Centro Atlántico de Arte Moderno (CAAM) in Las Palmas de Gran Canaria (Spain), both under my curatorship, provided the great incentive and opportunity to make this ambitious project a reality.

Analivia Cordeiro is recognized internationally above all for her first computer-based video dances created between 1973 and 1976, and also for having developed the computer movement notation system Nota-Anna, programmed together with Nilton Lobo from 1983 onward, on which basis she innovatively deployed a 3D visuality, as well as various spatial-temporal functions. Her production from the 1990s onward, however, has not yet been sufficiently disseminated. Raising awareness about her work of these last phases was another purpose of this book.

This volume is divided into three main parts. The first introduces the artist's work, with a preface by the director of ZKM, the media artist, professor and theoretician Peter Weibel; this is followed by this prologue and an interview I conducted with Analivia Cordeiro over the course of several months in 2022, in which we address various complementary topics of interest not previously covered in the other texts.

The second part is organized in three sub-groups: the first presents a selection of Analivia Cordeiro's main writings between 1973 and 2018; the second is dedicated to the selection of texts

by various authors concerning her work, about which I shall write further along. A set of relevant historical documents and correspondence, mainly from the beginning of her career, is reproduced in the third subgroup.

Throughout her trajectory, Analivia Cordeiro has felt the need to document her works and her reflections about them in texts. The first subgroup of the second part comprises articles by the artist of historical interest today—such as her paper “A Language for Dance” presented at the international conference and festival *INTERACT Machine: Man: Society*, in Edinburgh, 1973; and her article “The Programming Choreographer,” published in 1977 in the *Computer Graphics and Art* magazine—as well as academic essays, in which she treats on questions relevant to her projects, such as: the software Nota-Anna (“Nota-Anna: An Expression Visualization System of the Human Body Movements,” 1998); the video course DuCorpo, created with the aim of democratizing access to body training through dance (“Looking for Cyber-Harmony: A Dialogue Between the Body Awareness and Electronic Media,” 2004); the videographic contents for cell phones and other portable devices called *A alegria de ler* (Joy of Reading), conceived to make free literacy courses available to the public (“Learning to Read and Write Through an Application for Mobile Devices,” 2010); as well as her text “The Architecture of Human Movement” (2018), which concerns a series of computer designed sculptures produced from 2015 onward, lending continuity to her investigations into the tridimensional and spatial-temporal recording of human movements, specifically the bicycle and the volley kick executed by Pelé in 1958, and the martial art yoko geri kekomi sidekick performed by Bruce Lee in the 1960s. Also reproduced here are her writings about

an experience of great personal relevance to Analivia: her stay for several months in 1975, at the age of 21, among members of the Kamaiurá indigenous people, in the Upper Xingú region, state of Mato Grosso. This sojourn deep in the forest was motivated by her curiosity to study primordial dances and body rituals, which she documented in photographs and Super-8 films. This documentary material was exhibited nearly four decades later in the exhibition *Manuara* (“remembrance” in the Tupi-Guarani language) at the Museu Brasileiro de Escultura (MUBE), São Paulo; and concerning it we include two texts by her from 2014: “Manuara Research, Film and Photographs – Living with the Kamaiurá Indians,” and “A Brief Description of the Cycle and Ritual of Kwarup.” We are also reproducing the introductory texts of that show written by Arlindo Machado.

Some of these essays of hers reveal another socio-pedagogical facet of Analivia Cordeiro’s production, an outgrowth of her concern to bring culture to the needier social segments while breaking down the educational barriers so characteristic of societies with a high degree of economic inequality. Such obstacles are manifested in the dominant elitism and in the disparities in regard to access to education that still exist in the world today, regardless of a country’s level of development. It is important to underscore that, parallel to her artistic production, Analivia developed an intense pedagogical activity in the field of dance, having maintained her own dance school Danças Analivia in São Paulo (1980–1985), and having taught in other schools and colleges for 17 years, lending continuity to the legacy of her first dance teacher, the Hungarian-born Maria Duschenes. Having come from England in 1940, in the midst of World War II, Maria Duschenes introduced into Brazil a theory of movement devised by Rudolf von Laban and the Labanotation system, as well as the Dalcroze Eurhythmics method (both methods were fundamental to Analivia’s training in dance). In many of her projects, especially those in videographic format, such as the DuCorpo course, this didactic and/or participative approach forcefully emerges.

The second set of texts, in the second part of this book, consists of articles and essays published by theoreticians and specialists about Analivia Cordeiro’s work. A brief text by Duschenes summarizes the enormous potential that she detected in that 26-year-old dancer: “She does not seek to symbolize anything specific,

just using movement itself as a communication channel... Analivia is an artist who seeks to give a new direction to choreographic art, exploring choreography in computer, video and film, as well as movements drawn from everyday life” (Maria Duschenes, *Analivia Cordeiro – Chamada* [Call], October 25–28, 1980).

Marcelo Leite, in his article published in the magazine *Iris* (1984), underscored the artist’s analytic capacity coupled with her sensibility to forms and innovation, also emphasizing the support from electronic engineer Nilton Lobo in the programming of the Nota-Anna software.

In his text written as an introduction to Analivia Cordeiro’s book *Nota-Anna – Electronic Notation of Human Body Movements Based on the Laban Method*, published in 1998, computer scientist Luis Velho emphasized “how ambitious Analivia Cordeiro’s proposition is, and the considerable challenge it represents, which has been faced by many others with a relative degree of success.”

The text written in 2010 by Arlindo Machado—one of the theoreticians of media art and communication most representative of Latin America—completes this survey of Analivia’s production up to that year. In his text *Body as a Concept of the World*, Machado masterfully summarized the main lines of Analivia’s artistic research that she laid down throughout her nearly four decades of work. He mentions an essential aspect little noted previously: that although she is the daughter of an important 20th-century visual artist, Waldemar Cordeiro—one of the pioneers of computer art in the international context—Analivia has developed, since the outset, a very distinct and personal trajectory centered on the idea of *embodiment*. And, without a doubt, Machado was right in noting that her works signified “the first Brazilian attempt to think about the language of video and how the body issue interacts with electronic art.”

Another text by Arlindo Machado, written as an introduction to the above-mentioned exhibition *Manuara*, discusses how Analivia has worked in ways akin to visual anthropology when she documented the rituals and choreography of the Xingú indigenous people during their Kwarup ritual, at a time when the tribes did not willingly allow outsiders to photograph and film their activities, and long before the “media invasion (television, in particular)” in their territories.

Lastly, we include an essay by Mariola V. Alvarez, a researcher from the United States

specialized in Latin American art from the 20th and 21st centuries and, particularly, in the history of abstract art in Brazil. In *Machine Bodies* she offers a contextualization of the artist's first works in relation to the preceding and coetaneous international scene. She focuses mainly on the analysis of *M3x3*, which, in her words, "proposes a world in which human physical and conceptual effort re-shape themselves in relation to machines."

The third part of this book is dedicated to Analivia's artistic production. The decision to order her works chronologically seeks to situate the reader within the dialectics of her creative process. It is up to the reader to mentally establish the interesting formal, conceptual and aesthetic nexuses that link her works from different stages, which can connect, for example, a study of movement by computer carried out in 1982 with a sculpture produced in 2020.

A brief biography, her resume, and a bibliography conclude the publication.

Analivia Cordeiro's fluency in the production of nexuses between a diversity of elements is something she has possessed since a very young age. A family photo taken when she was a baby shows her crib, with a mobile hanging above it—actually, a replic of a kinetic sculpture by Alexander Calder (fig. 1). According to Analivia, this dance of elements metaphorically influenced her worldview from the outset.

Her two childhood drawings reproduced on page 141 were made at the age of five and six. The tangled lines are like the notation of the paths of the movements of butterflies in flight, configuring a sort of aerial dance. Lending visibility to the intrinsic relationship between space, body movement and writing was to become transversal to all her future artistic work. For example, in her video *Ar* (Air, 1985), she explores gesturalities—arms and legs create visual images in space—and since 2017, her gestural paintings probe the space of the paper in the series *Dancing on the Paper*.

The nexus between gesturality and the visuality of the tracing of movement in space is evident in another drawing made in 1960, in which she depicts a spiral in space, defined by lines that circulate in parallel, fractionated into elements of different colors. Constant transformation and the cyclical nature of the rhythms are fundamental to understand any dance, including the dance of the universe. This would be reflected in

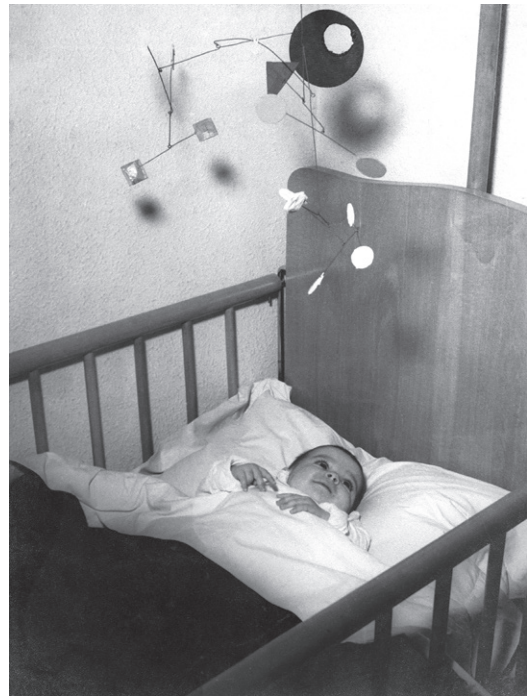


Fig. 1
Analivia Newborn, 1954. Photograph, 20 × 15 cm.
Unknown photographer

future works, as in the choreography of her video dance *E* (which for visual reasons could perhaps be better written as a lowercase *e*), 1979, which is based on the spiraling circulation of bodies, as shown by the graphic notation of the movement of dancers in the space (see figure on p. 211).

Another suggestive connection can be established between her experiments involving dances performed with lights and Labanian movements, captured by a photographer in 1966, probably by chance, and their materialization in future choreographies, in which the dance of lights in a completely dark scenario is central, as it is, for example, in *Trajétórias* (1984), performed by 10- and 11-year-old schoolgirls, or *Micron Virtues* (1992), in which microswitches are attached to the dancers, which they turn on and off during the performance. These are only a few examples of how the notion of nexus became, from very early on, part and parcel to her way of thinking, practicing and feeling.

As a transdisciplinary and experimental artist par excellence, Analivia Cordeiro's intense and constant research into the movement of the human body was and continues to be decisive for her work in a wide range of areas: dance, movement notation, choreography and computer-designed choreography, performance, photography, sculpture and painting, as well as in the field

of media art—video art (video dance, computer-based video dance), multimedia, telematics and mobile art—as well as participative and interactive art installations. The nexus she established, linking techniques and styles of contemporary dance with the visual and audiovisual arts, has permitted her to develop a hybrid language of a very singular quality.

Since the 1970s, her projects, investigations and works have made use of a wide range of different technologies, involving both computers and telecommunication (including Internet and mobile platforms) in step with her inventions. In 1987, years before the emergence of Internet in daily life, she produced *Slow Billie Scan*, a telepresence dance transmitted by slow scan television between a city in Brazil and one in the United States. Although a normal occurrence in the low-tech SSTV system of that time, the interferences in the images during the slow-scan transmission (8–12 seconds per image) provided aesthetic qualities of cuts, distortions and superpositions of images during the transfer of data, which were documented in video. Analivia's choreography considered these effects on the bodies of the two performers—Lali Krotoszynski and herself—while it also played with the randomness inherent to this sort of remote data transmission.

From 2015 onward, she applied her knowledge acquired with Nota-Anna to the creation of computer-designed sculptures. Today her software is being used in the programming of projects with artificial intelligence and mobile systems, as in the recent BodyWay Nota-Anna app, 2022, an optical motion capture application conceived together with Nilton Lobo over the course of two years and slated for release during the exhibition at ZKM Karlsruhe (fig. 7). With this AI algorithm, they provide users around the world with the possibility to capture, visualize and analyze the movements of their entire body based on videographic images that are prerecorded or made at the moment with their cell phone. The images are transformed nearly in real time into stick figures, without the need of using tracing sensors, body markers, detectors, exoskeletons or special clothing. The playful and communicative aspect—for example in sharing

the results on the social networks or using them in games—is one of the project's components.

Despite her exploration of different media, Analivia has never considered them an end in themselves. Even while recognizing that the instruments and supports used in the production process are never neutral in their effect, Analivia has always considered them tools for her investigations into the potentials of artistic manifestation of the body and of its movements, as well as channels for the dissemination of interhuman communication. For example, her computer-based video dance *M3x3* (1973) situated her as a forerunner of video art in Brazil and Latin America, and as one of the pioneers in the programming of a computerized notation system to be used in choreography designed specifically for the camera and for creating the instructions to guide the film crew in shooting the performance. Nevertheless, her main aim was not limited to the use of a computer tool; she went much further, introducing random elements in the notations and conceiving an effective method for defining the compositional convergence between the choreography of the movements of the bodies and the instructions for their filming by the video cameras; she consequently focused her research on questions of an aesthetic-conceptual nature. (I will return to this theme later in this text.)

From a conceptual point of view it is relevant to introduce a brief historical overview. The first experiments with computer-designed choreography were made and put into practice beginning in 1964 by Jeanne Beaman, Paul LeVasseur,¹ A. Michael Noll, and Francisco Sagasti. In 1965, Paul LeVasseur published in *Impulse Magazine* the article “Computer Dance – The Role of the Computer,” followed by a text by Beaman, a dancer, choreographer and student of Martha Graham, titled “Implications of the Dance,” both of which are widely cited in the related literature.² They argued that the introduction of randomness in the arts had awakened interest for the use of the computer in choreographies, and stated that, “Instead of tossing coins we have used the computer to the same effect because it can quickly juggle a great complexity

1 See “Computer-programmed choreography,” in Jasia Reichardt (ed.), *Cybernetic Serendipity – The Computer and the Arts* (London: Studio International, 1968), 33.

2 Paul LeVasseur, “Computer Dance – The Role of the Computer,” and Jeanne Beaman, “Implications of the Dance,” *Impulse – Dance and Education Now*, Annual of Contemporary Dance (San Francisco: Impulse Publications, 1965), 25–28.

of variables.”³ They recognized, however, that in the generation of the “random dances” the computer was “neither discerning nor creative,” although the quickness of computer processing was a factor to consider in the use of this tool. In 1967, Sagasti together with William Page began to develop a computer program for composing choreographies for various dancers.⁴ A model of choreography generated by this system was applied in a dance workshop in early 1968 by the experimental dance group of Pennsylvania State University. Also in 1967, Noll published the article “Choreography and Computers.”⁵ In that three-page text, the engineer and computer artist referred to the difficulties inherent to handwritten choreography notations and considered the resource of film recordings (actually, a computer-animated film with stick figures), which, although it preserved the general conception, presented problems in determining the individual positions of the dancers and in the bidimensional representation on the plane.

As mentioned above, in 1977 Analivia published her text *The Programming Choreographer* in the North American magazine *Computer Graphics and Arts*, in which she discusses her researches and works made since 1973. The year 1978 saw the publication of the article “The Computer in Choreography,” by John Lansdown, one of the pioneers of computer graphics, who had presented and watched *M3x3* during the Edinburgh Conference and Festival of 1973, which he organized (see the reproduction on p. 135). In that article he indicated that “computer-aided choreography illustrates some basic relationships between the computer artist and the computer procedures he employs to achieve certain artistic outcomes,” and mentioned that “more recently Brazilian choreographer Analivia Cordeiro has used programs to generate dances and their television coverage.”⁶

In general, they all share the opinion that the use of algorithmic resources allowed for the introduction of new processes, but that the creation of innovative dance forms based on technology would involve another sort of challenge. Precisely in this sense, the approaches to

technology based on the world of dance made by Jeanne Beaman and by Analivia Cordeiro differed from the proposals by Sagasti and Noll. As dancers, they were informed by their practical experience in dance, they were familiar with the real needs and concerns of the body expressions and languages, of performance and improvisation, as well as with the aesthetic exploration of compositional and scenic aspects. Analivia went a step further, insofar as she designed the computer-assisted choreography not for the stage, but for performing in front of the video camera. In contrast, Noll, according to what he clearly expressed in his article, was absorbed by the solution of graphic and representational problems, which he called “choreographic programming languages,” and his attention was limited to the solution of techno-functional questions of the tool used in the process of choreographic notation.

Another relevant historical question regards the relationship between film and dance—called dance-on-film, dance for the camera, cine-dance, choreo-cinema, screendance—and, especially beginning in the 1970s, between video and dance. The first ones had as their main predecessors the experimental historical productions of the 1920s, for example those by Germaine Dulac, René Clair, Fernand Léger and Dudley Murphy. The pedagogical film documentary *Wege zu Kraft und Schönheit* (1925), by Wilhelm Prager and with screenplay by Nicholas Kaufmann, took body health as its central theme and included scenes dedicated to the studies of movement and of dance, which enjoyed the participation of Rudolf von Laban and his dance group. Laban found in cinema an ally for the visualization and dissemination of his dance method and notation system he had been developing since the 1910s. He believed that his *kinetography* could also be used in the elaboration of screenplays of movements by actors for cinematographic productions, avoiding the ambiguities inherent to oral communication. In 1928, a conversation between him and cinema critic Lotte Eisner was published in the magazine *Der Film-Kurier* with the programmatic title “Film und Tanz gehören zusammen”

3 Ibid, 25.

4 Francisco Sagasti and William Page, “Computer Choreography: An Experiment on the Interaction Between Dance and the Computer”, *Computer Studies in the Humanities and Verbal Behavior* (Vol. III, Nr. 1, January 1970), 46–49.

5 A. Michael Noll, “Choreography and Computers” (*Dance Magazine*, Mouton, January 1967), 41, 43–45.

6 John Lansdown, *The Computer in Choreography* (London: *Computer Magazine*, August, 1978), 19–26 (page 19 is reproduced in this book).

(Film and Dance Belong Together),⁷ in which he referred to his experiences in the field of cinema, most of which have unfortunately disappeared. In 1929, he collaborated with Wilhelm Prager in the film *Drachentöter* (The Dragonslayer) and wrote scripts for didactic dance films, such as *Das lebende Bild* (The Living Image).

Most likely influenced by the ideas of her teacher, in the 1940s Maria Duschenes—Analivia’s dance teacher who, as mentioned above, introduced her to the Laban Method and to Dalcroze Eurhythmics, and conveyed to her the fundamentals of contemporary dance—produced dance-for-the-camera films together with her husband Herbert Duschenes, and subsequently disseminated those pieces to her students. The aesthetic and visual solutions of these experimental films corroborate the creation of choreographies especially conceived for the camera, concentrating on details of movements, for example, on hand movements in the foreground.⁸

Although there are many examples, few artists and/or filmmaking choreographers actually managed to abandon the visual manner of filmed dance and to develop processes for the integration of both languages. In order to create a new “object” of art on an audiovisual support, both cine-dance and video dance needed to go beyond the mere recording of the choreographic experience in situ (which approximated it more to documentation). It is understood that, beyond the movements (choreography), the music/audio and the scenery, the camera takes played a fundamental role, and the film editing and postproduction interfered directly on the work’s concept and final aesthetics.

This concern was not new. It was present in the first film experiments of visual music—some with the character of visual dance—in the 1920s and 1930s (Hans Richter, Viking Eggeling, Walther Ruttmann, Norman McLaren, etc.), that managed to break away from the typical narrativity of commercial cinema to enter into the world of time-based visual art. In 1930, in his book *Film als Kunst* (Film as Art) and, later, in a 1938 text written in Italy, “Nuovo Laocoonte” (A New Laocoön: Artistic Composites and the Talking

Film), Rudolf Arnheim had posed the question of whether film would only reach the status of art once it had abandoned the need of reproducing objective reality and the aim of capturing the de facto world. However, few people involved with dance for the camera understood the difference between the *Weltbild* (image of the world) and the *Filmbild* (filmic image) and were thus able to move beyond the mere plane of registering the choreographic performance.

This set of challenges is what Analivia Cordeiro faced at that time.

Her first experiment with dance for the camera took place together with the Clyde Morgan company, in the piece *Improvisação estruturada* (1972), filmed in the studio of TV Cultura de São Paulo. Analivia was 18 years old and noticed the lack of synchronization between the dancers’ performance and what the camera operators were filming. Disappointed with the final result, this is what prompted her to start looking for a method to establish a nexus between the two.

The most important precedent she found in her family environment: through her close contact with her father’s works, she was attentive to the potential of technology used in computer art. Another previous experience had taken place in 1968 during her first trip to Europe with her family. Together with her father, she had visited an exhibition which is emblematic today, *Cybernetic Serendipity*, curated by Jasia Reichardt, at the Institute of Contemporary Arts of London. It should be remembered that the exhibition included computer graphic pieces, computer-generated pictures, machines and environments, computer poems and texts, but also computer dance, computer programmed choreography (Jeanne Beaman) and computer-animated movies. For Analivia, a 14-year-old youth, it was a special experience that she still remembers today. Thus, from a young age, her relationship with technology developed in a natural way.

In this context of seeking new languages for dance, Analivia’s attention was especially called to *Triadisches Ballett* by Oskar Schlemmer together with Albert Burger and Elsa Hötzel, in which they applied vanguard Bauhaus ideas

7 Lotte Eisner (interview with Rudolf von Laban), “Film und Tanz gehören zusammen” - Aus Anlaß des Tänzerkongresses, Essen, 21-26 Juni (*Film-Kurier* 143, 16 June 1928), n.p.

8 I refrain from mentioning other historical references related to the field of dance for the camera from the 1940s onward (Maya Deren and Talley Beatty, Norman McLaren, etc.), and of video dance mainly from the 1970s onward (Nam June Paik, Charles Atlas, etc.) considering that these are already discussed in another text in this book.

of confronting the natural and organic with the mechanical, technical and designed, and of overcoming realism through abstraction and geometric shapes. The configuration of the costumes and the scenographic space (*Raumtanz*) through the combination of colors, sounds, lights and shapes (*Formtanz*) was accompanied by the choreography and the movements (*Gestentanz*).⁹ In Analivia Cordeiro's own words, "Duschenes showed me the film of a ballet performance by Schlemmer, which was available for consultation at Goethe-Institute in São Paulo. I later returned to watch it various times, until I memorized the movements. As I was alone in the projection room, I stood up and began to imitate the movements of the dancers of the *Triadic Ballet*."¹⁰ A great deal of caution, however, is needed when pointing to him as the main influence in the conception of Analivia's first video dances. Differences in the conception, aesthetics, choreography, scenography (especially the configuration of the space), and costume design between the two proposals are more than evident. Undoubtedly she shares with the *Triadic Ballet* the importance given to the number three—*trias*, from late Latin—especially in the $M_3 \times 3$ matrix conception (fig. 2). Three implies the overcoming of duality, refers to the three mathematical coordinates of space, as well as to the three movements and the three colors of the ballet. The prominence of the relationship between numbers and choreographic and scenographic creation has remained, since then until today, a fundamental principle of some of Analivia's work. Moreover, the application of essential geometric shapes, such as the square, the triangle and the circle, to the movements and spaces of Cordeiro's first video dances had as antecedents—besides concrete art—the proposals of both Laban and Schlemmer. Another common point was the inventiveness of the nonorganic movements as an antithesis of the mimic gestures and virtuosic technique of classical ballet, which in the choreography by Burger and Hötzel was also due to the limitation of performance imposed by the volumes and design of the sculptural

costumes. (However, other artists had already conceived proposals regarding these mechanized movements, such as those of the dadaist Hugo Ball in 1916, which were doubtlessly much more groundbreaking in the formulation of the human-machine problematics.) Nonetheless in the case of Analivia's first video dances, more than mechanization or automation, the dance style in tandem with the type of video editing convey the feeling of a *programming* of bodies. The initial input and the information generated in the output coincided for the (con)formation of languages (computational and corporal). The artist specified in her paper "A Language for Dance" written in 1973 and sent to the *INTERACT* event in Edinburgh: "The timing of each shooting gives the spectator the sense of programmed rhythm. The shooting times are measured according to a G. P. (geometrical progression), ordered at random."¹¹

In other words, Analivia's programmatic proposal succeeded in developing new methods of artistic work based on two precedents: first, from the perspective of choreographic notation, she started from Laban and tried to systematize his method through computer programming. Thus, she created a codification of movement in space for a multidimensional and multidirectional "technical gaze" (the "eye" of the video camera(s)—that is, of the cameraman or TV director—in union with the dancer's "reading" technique translated to body movements). Second, while Schlemmer's ideas of "tänzerische Mathematik" (*Mathematics of Dance*, 1926) conceived the body as a "Mechanismus aus Zahl und Maß" (mechanism of number and measure), for Analivia the elements that contribute to the staging of the dance for the camera—bodies, movements, costumes, set—are approached as "artifacts" that construct and at the same time are part of the space.

Analivia Cordeiro faced various challenges in the conception and realization of $M_3 \times 3$,¹² $0^0 \leftrightarrow 45^0$ (the first two versions), *Gestos* and *Cambiantes*—computer-based video dances produced between 1973 in 1976. She tried to

9 Schlemmer was interested in the proposals for new dance by Émile Jaques-Dalcroze, who with his "Rhythmischen Gymnastik" aimed to renovate the language of dance. With students of this choreographer, the dancers Burger and Hötzel, Schlemmer began to work in 1913 on the first ideas that led to *Triadisches Ballett*, which premiered nearly a decade later, in 1922 in Stuttgart.

10 Correspondence between the author and Analivia Cordeiro, 2022.

11 Analivia Cordeiro, *A Language for the Dance*, 1973, 4 (see her paper reproduced in this book; the original is deposited in the ZKM Karlsruhe archives).

12 For a more detailed description of $M_3 \times 3$, see the text in this book dedicated to this piece in the *Works* section.



Fig. 2
M3x3, 1973. Computer-based video dance.
 Mono-channel video 4:3 (black and white,
 sound). Video still frame.

harness the three elements that the above-mentioned investigators and artists had separately approached: the audiovisual language linked to dance, or to video dance with computer-designed choreography, and with computerized screenplay for the camera. Therefore, a production with these characteristics was not only limited to the programming of a notation system for generating guide notes for the choreography based on a clear concept, but was also aimed at resolving a series of other relevant questions to reach a satisfactory audiovisual result.

From a conceptual and formal perspective, her clear choice of anti-narrativity was manifested in the linear discontinuity, a way of preventing the choreography's subjection to a sequential expressive structure of movements or scenes. This is also due to the factor of randomness implemented in the algorithm that defined the dance's notation. Besides the work's conceptual and formal design, to mention the main points (which I will letter for easier reading), she aimed to: (a) develop a method that would be empirically applicable to a symbolic language; (b) explore the spatial-temporal configuration from the cameras' point of view to avoid the typical front-on view of the observer in regard to what is happening on the stage (in this sense, diagonals and orthogonals assume special relevance in the pieces, as does also the use of various cameras situated at different angles) or, in the case of *Cambiantes*, simulating a rupture of the format's characteristic rectangular frame; (c) establish a parallel

between the geometry of the dance dynamic and the spatial and scenographic design, in the case of *M3x3* for example, the clear delimiting of a matrix on the floor with nine spaces measuring 1.5×1.5 meters each, and with two vertical separating lines centered on the walls; (d) conceive the visual elements of the scenography and of the costume design in a way that goes beyond mere analogy and manages to fuse or blend shape, figure and plane; through the artifice of contrasts coupled with gestaltic inclusivity she sought to go beyond the background/figure antimony; (e) interweave the audio aspects with the body gesturalities; (f) link the random selection of movements, made by the program, with the real dance and the human creativity proper to the moments of the dancers' improvisation; (g) perhaps the most innovative of all, as mentioned above: link the visual aesthetic solutions with the new choreographic conceptions based on the use of computerized notation to define not only the choreography of the movements but also the cameras' positioning and framing in regard to the dancers' movements. As Analivia Cordeiro argued in her paper "A Language for Dance," her programming method for coding dance took into account: "1. the camera as [spectator dynamics]; 2. the movements of the dancer; and 3. the output as the members of the team performance program, including dancers and technicians, software and hardware."¹³ Last but not least, the film editing and postproduction came into play. All of these aspects were planned, created and

13 Ibid. 4.



Fig. 3
Analivia Cordeiro at the Bat-Sheva Seminar on the Interaction of Art and Science, Jerusalem, 1974. © Vladimir Bonačić Archive, ZKM | Karlsruhe.

solved by Analivia Cordeiro in her first five video dances.

Two other impasses are worthy of mention: in São Paulo, due to the limited access to videographic technology, the only possibility for producing videos at that time was in television studios. However, this required a great deal of persuasive effort to make the technicians and director at the studio of TV2 Cultura understand the importance of following the instructions in computerized notation for the cameras and, furthermore, the aesthetic relevance of the accentuated black-and-white contrast she wanted to achieve. Furthermore, an additional effort was also required from the dancers themselves to internalize the choreographic proposals, to admit that it had been a “machine” that created the guide notes to follow, and to “decipher” the computer-generated choreography printouts. A keen observer will be able to note certain signs of incredulity of some dancers during the recordings in 1973.

From an aesthetic point of view, the works of that first stage were materialized from concrete bases. Analivia Cordeiro was incisive in the defense of the contemporary dance style and needed to face a very limited and conservative cultural context in Brazil. This demanded a much sharper capacity for imagination, coupled with firm perseverance. Her great curiosity and her restless and resolute spirit operated in her favor.

From the outset, her aesthetic approach in her choreographies and video dances included the suppression of the typical pathos of the plots of ballets. The artist balanced the planned

unfolding of the dance through the computerized notations with the controlled improvisation of performance without letting herself be carried away by theatricality of the gesture, though while also preserving the moments of intensity. The attention she gave to the designated space evinced a clear intention to deconstruct the traditional notion of stage. In some cases, the visual elements that composed the scenarios tended to create close parities with the dancers’ bodies. In other cases, the formal solutions of the (video) choreographies showed more daring motivations: to make the space and the bodies of the action completely disappear, placing the dancers’ bodies in utter darkness, so that the dance of lights takes on a leading role, as in *Micron Virtues*; or transforming the very surface of the body, the skin, into a space over which the dance of the camera glides, as in the video choreographies of the *Carne* (Flesh) series. In her video dance *Gestos* (Gestures), there is no scenario; the artist eliminated the stage—the *Zwischenraum*, the intermediate space that usually separates the public from the place of the performance. She thus situated the camera operators within the visual field of the recording at the same level as the performers, something rarely seen in the 1970s, especially in art pieces. By dehierarchizing their roles, she integrated the cinematographer into the work. The space was emptied of any accessory except the TV monitor, which emitted in a closed circuit, in real time, what one of the cameras was recording. The absence of a conventional stage thus allowed more proximity for the observer while also opening two possible layers

of reading. In the late 1960s, investigations by international artists with closed-circuit systems in audiovisual installations were incipient and locally restricted—as was the case of Frank Gillette, Les Levine, Bruce Nauman, Peter Campus or Peter Weibel, concerning which Analivia had no news in Brazil. The way she used closed-circuit video in the context of video dance was, therefore, truly innovative.

It should be remembered that all of her first computer-generated video dances were carried out before her stay for studies in New York beginning in 1976 and, therefore, predate her direct contact with the contemporaneous aesthetics of Cunningham, Alwin Nikolais, Viola Farber, Jeanette Stoner and Gus Solomons Jr. in New York. Her only previous experiences with more cutting-edge contemporary dance had been in 1968, when she watched a presentation by the Cunningham Dance Company in Rio de Janeiro (which she mentions in our interview), and in 1971, when she was taking a course taught by Albert Reid in São Paulo in Cunningham's dance technique.¹⁴ In 1976, still in São Paulo, she attended the dance course given by Kelly Hogan, a disciple of Martha Graham.

Here it is fitting to make a second parenthetical remark about a question that involves a certain paradox. On the occasion of Cunningham's retrospective at Walker Art Center and at the MCA of Chicago, in 2017, it was clearly stated that he was the first choreographer in the world to use a computerized system of movement notation in the creation of choreographies. The same affirmation was made in a documentary about Cunningham directed by Alla Kovgan, produced in 2019 to coincide with the 100th anniversary of the dancer's birth, and various dance theoreticians have reiterated this assertion. It has been documented that his first choreography in which he used a dance notation software, called LifeForms, was *Trackers*, in 1991. However, among his students at his Dance Studio in New York between 1977 in 1978 he had an artist—Analivia Cordeiro—who had already been using computer-designed choreographies since 1973 and had already produced various

computer-based video dance works, years before she participated in the video dance workshop with Charles Atlas and Merce Cunningham Dance Studio in 1978. Since 1973, Analivia's pieces had been shown in important international events that brought together personalities active in the arts at that time, for example, in the international conference *INTERACT Machine: Man: Society*, in Edinburgh (1973), at the Bat-Sheva Seminar on Interaction of Art and Science, in Jerusalem, Israel (1974) (fig. 3), at René Berger's seminars at Université de Lausanne, Switzerland (1974), at an exhibition at the Institute of Contemporary Arts of London (1974), at the International Conference Computer & Humanities/2, University of Southern California, Los Angeles (1975), at the 20th American Dance Guild Conference, introduced by Jeanne Beaman, at the Massachusetts Institute of Technology (MIT) in Cambridge (1976), and at the WGBH TV Public Station, in Boston, which in 1976 broadcasted a television program in which *M3x3*, *Gestos*, and *0°↔45°* were shown, to cite only a few examples of the channels of that time in which her video dances appeared (fig. 4).

Needless to say, the history of art should also be rewritten in a way that avoids the mere reconfirmation of preconceptions that still exist today, consistent with geocultural power strategies. Or perhaps they are due to unawareness (which is another form of disinterest typical of hegemonic thought) concerning the artistic production in other countries outside the axis of those who dominate the art market. With his characteristic keen insight, Waldemar Cordeiro observed that “every image is a problem of art criticism. Criticism knows next to nothing about this subject.”¹⁵

Getting back to the previous theme: besides her training in various dance styles and techniques—from Laban, passing through Graham, up to the more contemporary ones of the time already mentioned—from the standpoint of the visual arts, Analivia Cordeiro had absorbed various notions developed by Waldemar Cordeiro in his theories and works, and also by the group of artists and intellectuals around Brazilian

14 Dancer Albert Redi was part of the Merce Cunningham Dance Company between 1964 and 1968, and traveled with it on an international tour in 1964, together with John Cage, David Tudor and Robert Rauschenberg.

15 Waldemar Cordeiro, “Transcription of Waldemar Cordeiro's Speech” at the NT5, Zagreb *Tendencias 5* Symposium, The Rational and the Irrational in Contemporary Art, June 1973 (*Waldemar Cordeiro Fantasia Exata*, São Paulo: Itaú Cultural, 2014), 530.

concrete art. This circle defended the notion that art had nothing to do with the reproduction or expression of forms (*Gestalten*) that were preexisting and independent of artistic activity, but rather that art's starting point and end purpose were situated in the creation of forms ("die Schaffung der Gestalten," according to Conrad Fiedler). Most likely, in the revisionist process of the more radical and somewhat inconsistent statements focused on the intended objectivity of his first phase, Waldemar Cordeiro, beginning in 1964, redefined his stand concerning what he denominated as "arte concreta semântica" (semantic concrete art), as well as other questions raised around what he called *arteônica*—beginning in 1968, his last artistic stage—dominated by investigations into computer art.

The notions of Gestalt were as important for the visual arts of that environment and time as they were for dance, and Analivia drank from the two fountains, filtered and leveraged by the concretist thought. Just remember that the first frames of the two faces painted black in $M_3 \times 3$ are a discreet "homage" to the Gestalt principles, which belies any attempt to explain them in relation to the current identity theories, so much in vogue.

Elements of pop art, of performance art, and even combinatorial techniques emerge especially in *Gestos* (1975). In other words, Analivia demonstrates that she had interiorized and become confident of this "resemanticizing" path of concretism (as Augusto de Campos would say), to avoid falling into a purely formalist abstraction (which would invalidate some theoretic interpretations in this sense of her work) while working in keeping with the tenets of "nonfiguration," to use one of Waldemar Cordeiro's terms.

She was also aware at that time of the concern of the socio-scientific thought in relation to the second Industrial Revolution and to the beginnings of the postindustrial stage, whose forms of

production, work and mass communication were modifying the social and individual behaviors, as well as the forms of consciousness (and of the unconscious). Cybernetic theory and the human-machine relationship were still being pondered in various sectors, and at that time found expression and ample debate in the arts and in new discourses of the Franco-Germanic informational, communicational and cybernetic aesthetics, with recognized impact on the circle of artists and intellectuals in São Paulo and Rio de Janeiro.¹⁶

Analivia, however, introduced into her investigation a new reflection focused on the implications for the human body of the effects deriving from that moment of sociocultural transition, a theme that was very much relegated by the intellectual circuit of concretism and also that of computer art and of informational aesthetics. It is also necessary here to relativize some interpretations that have ventured into projecting politicized discourses on the work she produced in her first artistic stage, attributing meanings related to the military regime that then reigned in Brazil. One does not have to be a specialist in the theory of the image; a good observer will perceive that her central artistic focus was not precisely to convey any sort of moralist criticism in the sense of what today is encoded under the mandate (if not the mantle) of the politically correct, which is, beyond being anachronistic, parasitic. Or, as her father used to say: "Art does not express, it is."¹⁷

The choreography of the above-mentioned *Gestos* (1975), also recorded in the studio of TV2 Cultura de São Paulo, can be considered a case apart, marking an experimental turning point in relation to the geometricism of the previous video dances. The bases for generating the choreographic elements were selected from printed mass communication sources, such as magazines of fashion and current events. The clippings of human figures or from news articles, brought

16 It is worth mentioning the close relationship that the theorist of information aesthetics Max Bense had with Brazil and the circle of concretists from São Paulo and Rio de Janeiro. Concerning Bense's relationship with Brazilian art and intelligentsia, see Claudia Giannetti, "Tropisches Bewusstsein: Zwischen cartesianischem Projekt und Schöpfungsentelligenz" in Elke Uhl / Claus Zittel (eds.), *Max Bense – Weltprogrammierung* (Berlin: Springer Verlag, 2018), 169-180. It should also be borne in mind that Analivia Cordeiro personally knew other key thinkers of cybernetic and informational aesthetics, such as Herbert W. Franke, Manfred Mohr and Abraham A. Moles, as well as artists like John Whitney, Frieder Nake and Michael Noll, attending together with them the Bat-Sheva Seminar on the Interaction of Art and Science in Jerusalem (1974) and later events. For information on informational aesthetics, see: Claudia Giannetti, *Estética digital – Sintopía del arte, la ciencia y la tecnología* (Barcelona: ACC L'Angelot, 2002), German transl.: *Ästhetik des Digitalen. Ein intermediärer Beitrag zu Wissenschaft, Medien- und Kunstsystemen* (Vienna/New York, 2004); summary in English in: *Aesthetics of the Digital* (Karlsruhe: ZKM Center for Art and Media Karlsruhe & Goethe Institut, Germany, 2005): http://www.medienkunstnetz.de/themes/aesthetics_of_the_digital/.

17 Waldemar Cordeiro, "Concretismo" (*Revista Módulo*, Rio de Janeiro: Avenir, 1959).

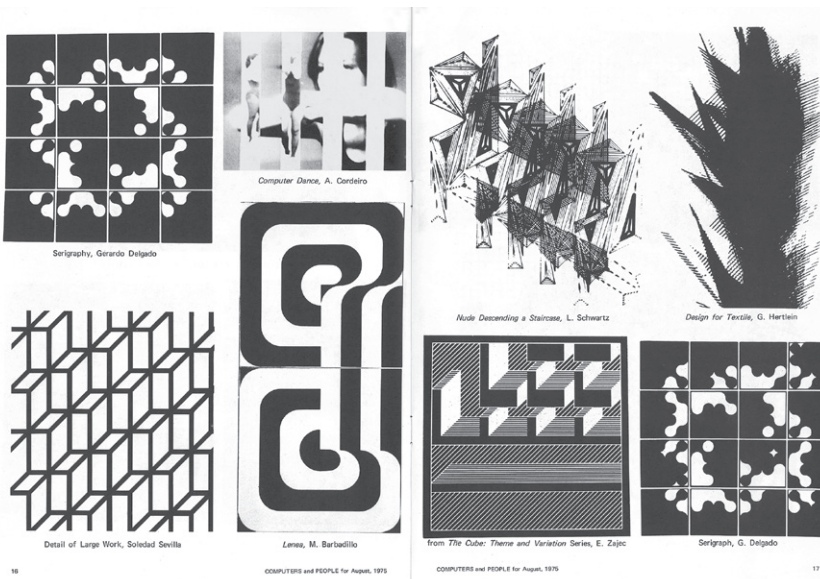


Fig. 4
Thirteenth Annual Computer Art Exposition, 13th
Annual Art Issue for *Computers and People*,
Vol. 24, No. 8. Newtonville: Berkeley Enterprises,
August 1975, 8–9. © Archive ZKM | Karlsruhe.

together randomly and numbered, served as a substrate for the notation program. With this input, the algorithm generated, also randomly, the notations for the dancers' motions and their movement through the space. According to the artist, even though the types of gestures mimicked everyday, trivial movements, nothing was improvised during the execution of the dance. The conscious choice for the artificial and circumstantial ran against the grain of dramatic eloquence. The music by John Cage used in this piece, *Variations IV* (1963), was juxtaposed without any dialoguing intention. Originally used in the piece *Field Dances* choreographed by Merce Cunningham—which Analivia had seen in Rio de Janeiro in 1968—the musical score was also based on random spatial interplays. There was no aesthetic or dynamic of collage in either the notations or the choreographic fragments used by Analivia, just as the piece by John Cage had no aim of being a sound collage. Body and sound gestures are dissimilar and yet coexist in the space of the recording studio creating, harmonies within disharmonies.

Besides the world of dance and arts, her interest in spatial relationships and the dialogues between the human being and his or her various environments derived from her studies in architecture, which she made in parallel with those in dance. This becomes more evident in *Cambiantes* (1976), a piece that evinces greater choreographic, scenographic and videographic maturity, produced before her study trip to New York. The various planes of the recordings on a slight diagonal and at 45° accompany the

movements of the dancers, who for their part play with the geometricism in right angles and diagonals of their gestures, contrasting in some sequences with contracted or distended body movements. Here, the contact of the bodies with the floor, which in $M_3 \times 3$ had already been the object of the choreography, plays a more central role: some gestures are impelled upward from the floor, others collide against the floor or are developed on it. The architecture of the space is transformed through the scenographic design, based on irregular black polygons situated in the corners and in the frontal part, and in black segments arranged diagonally on the white background of walls and floor, reinforcing the sensation of continuity between the two. The intention to dilute the typical frontal view of the stage is reinforced by the costume design, also in black with white stripes and polygons on the legs, arms and backs, uniquely different on each of the four dancers. Both of these designs were planned to create effects of juxtaposition, superposition, and blending in the viewpoint of the cameras and, during the projection, the spectator's visual perception of the environment/space where the dance takes place. In this sense, the conceptual proposal was to visually interfere in the typical rectangular delimitation of the videographic frame. Here, once again, she goes beyond the limits of the background/figure antimony. According to the artist herself, the makeup on the faces bears a link with the geometric body paintings of the Xingu indigenous people, with whom she had stayed the previous year. The dynamics of the video editing accompanies the

transition elements foreseen in the composition of the dance and of the music of the same title composed by Raul do Valle.

With these bases, which are simultaneously diverse and surprisingly solid for a young artist, Analivia Cordeiro carried out an experimental work without allowing herself to be completely absorbed by any of the previous tendencies, while seeking for her own artistic conception. Considering the enormous financial limitations that artists with such innovative projects and ideas faced at that time, in hindsight it is admirable what she managed to produce in the span of a few years with such little resources and support.

Working on the frontiers requires the development of methods of communication between different parts, whether they are “instrumental”—devices and bodies—conceptual, or aesthetic. Achieving success in this dialogue means intertwining the languages, inventing nexuses.

On the occasion of my first direct contact with her work, still recognizing the importance of her technological research, it was precisely this transdisciplinary treatment of languages, her experimental independence, and her aesthetic approach which most caught my attention.

The strong nexus among choreographic and scenographic aspects allows us to see, since the first video dances, the importance of the aesthetics of visual arts in her production. Feeling the need to go beyond the specific world of dance and the spatial-temporal limitations, Analivia resorted to the new languages provided by technologies to bring about an expansion of the body’s domains, its movements, and forms of communication.

In *Ar (Air)*, a video dance from 1985, she worked with visual and spatial tension through the interplay between the actions in the field and off-screen. Part of the dance was executed by her outside the fixed frame of the camera, at its borders. Although the quality of the recording could be better, due to obvious issues of access to professional technological resources at that time, I consider it one of the key works, together with *Cambiantes*, for understanding Analivia Cordeiro’s artistic attitude: using poetic resources to work along the borders of styles, constantly questioning them. Exploring the limits of the visual field to enter the world of the imagination; questioning the supposed perfections and the certain imperfections of human gestuality. The same off-screen resource was used in *Dance on*

the Paper: a large part of the body is absent from the video frame and the final result is a dance of traces left on the spatial cutout (the paper), within which the body disappears although it is implicit.

Her scenographies and choreographies tension not only the physical space (for example the cube in her first works), but also the intimate space of the body explored with and for the camera—as she did in her video art pieces (which she calls *videochoreographies*) from her second phase, such as *Striptease* (1997), *Carne I*, *Carne II* and *Carne III* (Flesh I, II and III, between 2005 and 2009). In these works, the body is transformed into scenario and content, place and object simultaneously. Her images link the sensorial with the sensual through a nearly haptic perception of parts of her body or the dancer’s recorded in extreme close-up. The synesthetic effects suggest a caressing gaze on a sensitive surface. Music, poems, urban and human sounds (with a highlight on breathing and exhalations) create interpolated associations. This organic imagery, counterposed to the aesthetics of her first phase, implies relationships between inner and outer, feminine sensibilities that go beyond the physical object to the point where the technical image is relegated to a second plane.

Starting in 2015, Analivia Cordeiro opened a new path in her research and work, based on the expansion of her single-channel videos in the physical exhibition space through multichannel video installation formats. She recovered the notion of the scene, the place where the actions take place, to once again go beyond it and make it accessible to the public. Facilitating the direct dialogue of people with the projected images became her guiding idea. *M3x3* and *Cambiantes* in installation format, both from 2015, reconstruct the cubic structure of the original scenario, now using three projections—two on the sidewalls and another on the floor—which invite the spectator to enter the imagistic space of the audiovisual projection and to dialogue with the work. With the interactive Nota-Anna-based audiovisual installation *Mutatio: Impossible to Control Just Contribute*, Analivia takes a step further, to integrate the movements of the audience within the computer-generated image. Shown in Paris for the first time in 2019, it offers the spectator the possibility to observe his or her own movements transformed into fields of color and shapes.

In the various facets of her work, the artist has prioritized human contact and, with these

installations, through a somewhat ludic aesthetics, fosters the direct contact between work and public. I would like to mention a statement by Waldemar Cordeiro, which I have cited in previous books of my authorship and which I've always seen as visionary for the time in which it was written, 1972: "The variables of the contemporary art crisis are the unsuitability of the communication media as conveyors of information, and the inefficiency of information as language, thought and action... The obsolescence of the communication system of traditional art lies in the limitation of consumption implicit in the nature of the transmission medium. The limited number of possible appreciators... is less than the quantitative and qualitative culture demand of modern society... Increasing the number of appreciators, the situation of culture becomes more diversified and the feedback more complex."¹⁸ In the different stages of her production, Analivia Cordeiro has remained faithful to the need to develop processes and methods to respond to these concerns with the communication between artwork and the public. Questions that range beyond considerations about materials, techniques and forms and deal with the suitability of the projects to new languages (at the semantic and syntactic level) and to broader understandings (at the consciousness and ideas level). For reasons of consistency, such cares are also part of an artist's ethical responsibilities.

Another fundamental aspect of her artistic work centered on scenic dance and performance should be mentioned: that its preservation is complex due to its ephemeral nature. Except for the choreographic notation of *E*, the artist did not conserve other materials or notations of her scenic dances and performances, many of them based on improvisational processes. There is unfortunately little photographic documentation, which was recovered and reproduced in this book, although we are aware of the deficient qualities due to the loss of original media or materials. Likewise, no historical text from that time exhaustively treats on this facet of her creation, which requires not only specialized knowledge, but also the first-hand witnessing of those events. For having resided in Europe since 1982, I have not had the opportunity to keep tabs on that part of her work developed mainly in Brazil. Arlindo Machado mentions in his text the performances

and/or choreographies that he personally attended: *VideoVivo* (1989), together with Otavio Donasci, *Unsquare Dance* (2007) and *Toca* (2007), together with João Penoni. I invite the reader to consult his text reproduced here. More recently she has been developing a performative work in collaboration with young artists and with urban dance, as she does in *Small Talks* (2022).

This vast listing of works is capped off by her artistic photographs, her works in visual arts and the above-mentioned series of computer-design sculptures based on *Nota-Anna* (2015–2018), concerning which two texts by Analivia reproduced in this book—*The Architecture of Human Movement* (2018) and the text about the *Unforgettable Kicks* series—provide ample information (figs. 5, 6).

The observation, interpretation, and perception of Analivia Cordeiro's work require a approach to the notion of gesture.

In his phenomenology of gesture, the Czech philosopher who lived for more than 30 years in São Paulo, Vilém Flusser, states that every human gesture implies a symbolic movement. Their complexity of meanings is so vast, there is no theory for the decoding or universal causal interpretation of gestures. Therefore, their sphere of action and communication has been defined by cultural conventions and is based on intuition. Conventions and intuitions, for their part, are subjective and simplified. This does not diminish the importance of gestures and the power they have on our bodies and thoughts.

Flusser did not write about the gesture of dance, one of the most important facets of inter-human communication in the configuration of cultures. The gesture of dance can be expressive and poetic, without necessarily being emotional. The contrary is also true: an emotional gesture is not necessarily significant or sublime. There exist precise gestures, also everyday and trivial ones—which contemporary dance has been exploring—but we cannot state that pure or objective gestures can exist. This does not prevent us from apprehending them or feeling them, usually without completely understanding them. The movements of dance can be energetic, crude and constricted, or smooth and harmonic, which involve eloquent, harsh, voluptuous or pleasant, and relaxed, mild or symmetric

18 Waldemar Cordeiro (ed.). *Arteônica – O uso criativo de meios eletrônicos nas artes* (São Paulo: Editora da Universidade de São Paulo, 1972), 3 (free translation).



Fig. 5
Poetics of Movement, 2018. Alumide, 23.45 × 19.88 × 11.73 cm
 Photographer: Edouard Fraipont

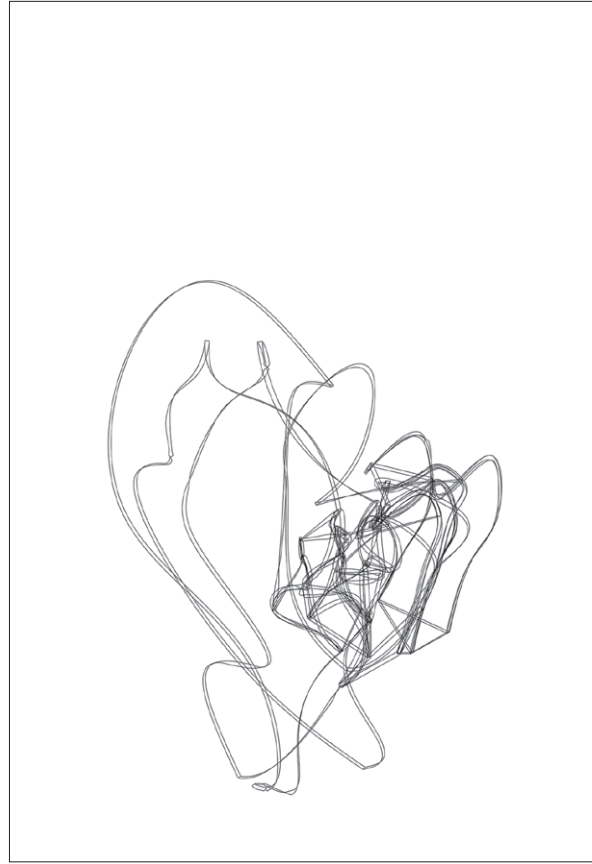


Fig. 6
Poetics of Movement, 2018. Sculpture digital sketch side view.

gestures, respectively. Communication by way of the alphabet uses an ordering of precise letters that can be repeated with preciseness, something which Analivia Cordeiro explored in *Alegria de Ler* (Joy of Reading), 2010. On the contrary, in dance, the gestures can be analogous or similar, never identical and invariable. They are always interpretive and individual movements, which therefore play with imperfection, randomness and subjective improvisation. The movements of dance imply technical mastery and physical preparation, however even though the dancers master them, their gestures do not have the same aesthetic qualities and they have differing capacities to execute them. Imagination stands above technique. Moreover, in communication through dance the vision of the gesture implies a hermeneutic observation for its assimilation, which adds a degree of complexity, since the mind thinks in images and interprets them according to individual experiences and knowledge.

The gesture, perhaps more than any other form of human communication, involves time and space; the spatial-temporal relationship of the body movement is its quintessence. Her

performances are concomitant to the spaces they occupy and simultaneously transform. Analivia is an artist of compact spaces and times. Those of us who work with music and literature know that the shorter a work is, the denser and more difficult it is to produce. Each note, each word assumes a specific weight. It is no different in her video dances, some of them a few minutes long: each movement, each corporal rhythm, each gesticulation lends the piece a particular character.

In this sense, when a dance manages to transmit new knowledge or awaken certain sensations or sensibilities through the set of movements foreseen in the choreography—as in the case of Analivia Cordeiro's video dances—these enter into the sphere of arts: the gestures of creation.

How far the algorithms can reach in regard to these and many other parameters that are beyond our scope to discuss here, without a doubt was and continues to be a question that drives artist-dancers, like Analivia. In her many years of creative experience, it is clearly perceptible that the ways Analivia has used technologies has always been suited to the intervention, dialogue

or collaboration with the body, with the gestures of the body, rather than the inverse.

Each human gesture implies the use of existing codes or the creation of new ones. This means that the body's movements are developed through codes and, at the same time, embody them. Analivia wrote: "The individual freedom has a meaning when, through a loop feedback, it modifies the program itself."¹⁹

Analivia Cordeiro starts from the body to go further into the world of codes, not to restrict herself to their formalising rules, but rather to expand them and, once modified, to re-embody them in art.

For that reason, the book title should necessarily imply the inverse action: from code to body.

Translation from Portuguese: John Norman



Fig. 7
Photograph of the audience interacting with *BodyWay Nota-Anna* app in the exhibition *Analivia Cordeiro – From Body to Code*, ZKM | Center for Art and Media Karlsruhe, 2023.
Photographer: Felix Grünschloß. © ZKM | Karlsruhe.

19 Analivia Cordeiro, 1973, op. cit., 2.



Analivia, 2020.
Photographer: Bob Wolfenson.