DIGITAL AND INTERACTIVE CHOREOGRAPHY: INNOVATIVE WOMEN IN THE DANCE HISTORY

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We are interested to describe, analyze and propose to dance a new concept: the concept of Interactive Digital Choreography. So our focus is in the digital choreographic possibilities with interactive quality, and contributions and new ideas proposed by women who participated in the recent history of Interactive Dance.

Fig. 1. Bluebody, 2008, by Ludmila Pimentel and Mariana Carranza, interactive installation, Copyright Ludmila Pimentel.

Fig. 2. RGBodies, 2008, by Ludmila Pimentel and Mariana Carranza, interactive installation, Copyright Ludmila Pimentel.

The Interactive Digital Choreography explored in this work shares some features with Interactive Art. We consider that the concept of Interactive Art comes from a continuation of the artistic movement advent of interactive installations that arise with the first facilities of videos installations that team together with *happenings* and conceptual art; all of them are part of the artistic movement of the 60s.

To understand the Interactivity of contemporary events we need to understand the events that happened in the history of art since the beginning of 20th century with Futurism, and continued with Fluxus, Process Art, Kinetic Art, Conceptual Art, until the contemporary stage of Art and Technology. We need to understand the collaboration of the work of John Cage, Robert Rauschenberg, Nam June Paik, also the new concepts proposed by Cybernetics, and of course the progressive 'dematerialization of the art object', which involves the active and physical public 'participation' in the event.

So, considering this context we need to mention the contributions of Allegra Fuller Snyder [1] that in 1965 proposed three distinct categories of dance and film. One would be the simple recording of a dance, where with just one camera, and also just a unique point of view, the dance danced on stage was recorded, another is the documentary film category of dance, where the narrative is respected but dance is adapted to film by using the camera close-ups, made distinct, and other technical capabilities, and more cameras available, and finally the cinedance, or 'choreocinema' (a term proposed by John Martin), [2] that is the creation of a new art, which can transcend the biological potential of our gravitational body and where it was introduced, according to Snyder, new possibilities of the body. Last category is the one most closely related to the topic of this work and in the emerging Interactive Digital Choreography alternative ways of moving bodies, new body shapes.

Comparing with interactive installations and digital art works, sound sculptures, immersive experiments, computer games and more recently Internet based forms of tele-presence, the Interactive Dance, in a more restricted survey of designated assisted art computers, can not vindicate to itself as long and heterogeneous history.

According to Gretchen Schiller, [3] since the beginning of the theatrical art, the artists have been expanding the concept of body through the materials and technologies, as a precedent for Interactive Art based on the movement. Sure there are many examples of dance choreography in which technologies were used, not just digital, transcending biological limitations of the body, such as the introduction of pointed shoes, in 1832, in the ballet *La Sylphide*. But, Loie Fuller was the first artist to stage the real technological breakthrough in the late nineteenth century when she began to make use of the lights not just to make the scene visible but also to create an atmosphere. She also used artifacts to extend and multiply her body image, or even transform it into animated shapes, and by doing so she brought into the world a new and revolutionary concept of dance.

After Fuller, the first experiments in the area of dance and technology are the films by Maya Deren (1940), and even before, studies on the chrono movement photography and cinema made by Muybridge, Marey and Mèliés, all of which may be considered in the historic route of digital animations systems called 'motion capture'. In addition, choreographers, researchers and teachers have used video, since this technology has been available, as an important tool to analyze documents or existing works.

In order to recognize the importance of women in Dance History and Technology we should not forget Thecla Schiphorst, [4] a graphic designer and dancer. She led a group of graphical researchers at the University of Simon Fraser (Canada), in the beginning of 1980. Schiphorst actually invented 'Lifeforms', a software that allows the creation of the choreography in a virtual platform where one can also watch

the choreography. It makes possible to the artist to see the movement from several points of view, a condition not available for real stage. Therefore, it was a woman who developed the software 'Lifeforms' but her name is not connected to the software she created. Instead, it became wordly famous through the name of a man, the north-american choreographer Merce Cunningham, who first worked with the 'Lifeforms'.

We cannot forget to register the contemporary choreographer Dawn Stoppiello, [5] one of the creator's of the software Isadora with Mark Coniglio of Troika Ranch Dance Theater, as another important modern matriarch in the history of dance and technology, specially her contribution to the development of a choreographic interactive language in dance performances. Stoppiello highlights the importance of interactive systems to meet these available to the largest number of artists interested in an increasingly simple and accessible to anyone with some training and familiarity with the computer.

We believe that in this new architecture for interactive dance, we have a new philosophical condition that enables us to be harmonic within the spatial context that we live, in wich we are immersed, and it is inseparable of our bodies. In short, a performative relational architecture that invites participation, and does not exclude the virtual architectures, besides it, includes the body in the experiment. We can not forget to mention the brazilian artist Lygia Clark that in the middle of 20th century and together with the Neo-concrete movement participants invited the body of the visitors to come inside of the objects and art installations, as a pre-historic stage of the Interactive art. For us is fundamental reveal this kind of no-mentioned history, the women contributions in the history of art and technology, in the history of dance and technology…

The dance creators have widely performed dance work in multimedia scenarios, sophisticated structured for consumption and aesthetic contemplation of the audience. Dance installations and online interactive dance, which invite user's participation are rare events. They form a new field of studies open to analysis and aesthetic evaluation of this new interface.

Each of these experiences and creations developed by choreographers with their software, offer different notions of what is the conception of dance, movement, body and the proposal of interactivity or even ideas of what is an interactive choreographic system.

The dance is seen in Brazil even as something to embellished and sculpt the female body, and not as a form of expressionist art, rebellious, much less as a way of developing the feminine discourse of her own body and authority, with few exceptions of recent contemporary dance productions. It is part of our school of Dance (UFBA) role to expand the notion of female corporeality building a more libertarian way, including tools for these bodies to be more independent, supplying ways to construct creative and technological autonomy in order to make a significant change in the former model and greatly strengthened in the countries of South America where most people think that technology is not a field of research for women.

How to change a trajectory of these female bodies used to attend the wishes of the choreographers who are mostly men? How to change the fate of little girls whose bodies are being forced into being more feminine and docile since childhood? How dance can change this reality and not just be another tool of body domestication?

This paper is rather an attempt to write the history of dance in interface with new technologies, highlighting those contributions often hidden in official discourse, which is the history of dance written by male.

There is still much to write, to fight, to do … I write this paper for us all women…

References and Notes:

1. Allegra Fuller Snyder,"Three Kinds of Dance Film: A Welcome Clarification," Dance Magazine 39 (1965): 34-39.
2. John Martin proposed the term 'choreocinema' to analyze and illustrate Maya Deren film productions, in his writing as dance critic of New York Times newspaper in 1946.
3. Gretchen Schiller, "From the Kinesphere to the Kinesfield: Three Choreographic Interactive Artworks," in Leonardo Journal 41, no. 5 (2008): 431-437.
4. See also Thecla Schiphorst, "Body Noise, Subtexts of Computers and Dance," in Computer Graphics 31, no. 1 (1997): 14-15.
5. Troika Ranch´s official Web Site, http://www.troikaranch.org/about.html (accessed July 10, 2010).