



THE “DANCING BODY” ON THE PERCEPTUAL FRONTIERS OF “TELEPRESENCE”.

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“Dance is an art derived from life itself, since it is nothing more nor less than the action of the whole human body; but an action transposed into a world, into a sort of space-time, which is no longer quite the same as that of everyday life”²

Paul Valéry

Keywords

Dancing body, perceptions, telepresence, dance on the internet, choreography.

Dance, artistic discipline that uses the body as its main support, is situated in a space of perceptual transgressions confronted to different technological tools that modify and redefine the parameters of choreographic creation.

The fact that the body is the instrument by which we relate to the world and a container of our existence, produces a vast and complex relation between dance and our daily lives. The sociologist David Le Breton who specialises in studies of the body, says: *“the body is the trunk identity of man, the place and time where the world becomes flesh”*³.

In this sense, what would be the state of dance in the relational context body, space, time and the use of new technologies? To try to find an answer to this question, we propose a reflection from the concept “dancing body”, a particular state of the body in which dance is revealed as another perceptual dimension in our relation with the world, both tangible and intangible.

Thereby, we confront the “dancing body” to the experiences of artistic creation with the use of “telepresence”. The goal is to open the debate of this new condition of choreography.

We need to clarify that this article is an overview of a more in-depth investigation that is attained at the University of Strasbourg and *Seuil-Lab* team. The experiences implemented in *Seuil-Lab* propose interactions and formats that can serve as parameters for the creation of dance and the use of communication technologies today.

The “dancing body” a particular state of the body.

*“Being a dancer is choosing the body and movement of the body as the spheres of relation with the world, as an instrument of knowledge, thought and expression”*⁴.

Laurence Louppe

To think the body is not only to position oneself from the proper substance of shape, volume, weight but to involve also other elements that we must consider, for example; the situation of the “body” in a space, the relation to other objects or other bodies, the environment that surrounds them etc., elements that are in permanent interaction. This interaction occurs through the senses (sight, taste, touch, hearing and smell), our channels of perception.

This activity of exchange and capture involves many different states and intensities, producing a variety of effects bound to the subjectiveness of this process. Furthermore, this interaction involves not only the environment and the atmosphere that puts it into context but also the intangible dimension of the mind and its imagery.

Dance uses the body in particular perceptual states since perceptions are “altered”, that is to say, used in another way than in everyday life. We call this body in the state of dance “dancing body”.

This body in the condition of “dancing body” presents the hypothetical existence of a “sixth sense”. This idea is inspired by the work carried out by Rudolf Laban, as well as physiology and cognition, which evoke the possibility of a “sixth sense” the “kinetic” sense⁵. This “sixth sense” would have a particular perception in the spatial and temporal interactions of this body transporting it to a dimension that communicates the material world of the environment and the sensible world in a different way.

Without going into the different theories of perception, physiology or communication, we approach perceptions from the point of view of the relation between the dancer’s body in the state of “dancing body”.

This body, so particular is confronted to the technologies of communication, in our case, “telepresence”. But how do we think dance in this context if the familiar references are transgressed? How does it affect choreographic creation and movement techniques? Constant questions that have been treated from practical experiences and multidisciplinary reflections along our laboratory experience, some of which we will approach as examples in this article.

“Telematics” or “telepresence”?

Before going on with our analysis, it appears important to us to make a difference between the word “telepresence” and “telematics”.

Evoking the concept “telematics” means involving scientific and technological discipline that originate in the convergence of the technologies of Telecommunications and Informatics, targeted rather to the technical process of this tool. However, “telepresence”, which apparently can be defined as a synonym, makes an important difference in our field of study evoking the fact of perceptive simulation of “presence”.

A definition that we share is:

(...) Combination of technologies that search for the effect of achieving that a person feel present in a place far away. For this, the user must make use of his senses and obtain stimuli from the far away place. It is more than just videoconferencing because, besides the image, the position, the movements, the actions and the voice are also communicated and it is possible to interact with documents and other objects. Therefore, the information that is intercommunicated is wide and very rich in terms of the type or class of medium.⁶

The “telepresence” used in our case through videoconference⁷ opens a space that proposes other perceptive forms in which the body, space and time are re-defined opening new options for artistic creation.

Already in the 70's (20 years before Internet) the artists Kit Galloway and Sherrie Rabinowitz, through their work "Satellite Arts Project" (1977), invented a device attached to a satellite signal that allowed dancers, who were located in two different places in the United States, to dance together in the virtual space of a TV screen with superposed images. The project proposes the idea of image as a "place".

This idea of "place" which is found in a space outside of the rules allowed by physics, and geography confronts spaces and bodies to another "possible reality" that opens in distant communication. "Place" according to other parameters that allow us to relate and "coexist" in a hybrid world between real/virtual, material/immaterial. Dance is introduced in this new system positioning itself and adapting its language to new possible forms of choreography.

In this context, how is dance confronted to its "dancing body" and this new paradigm of choreographic space in "telepresence"?

The confrontation of two media: "dancing body" versus "telepresence".

The Latin word "medium" being "media" its plural form, refers to the intermediate, the support for the dissemination of information. Thereby we could say that the "medium" of dance is the body, specifically "the dancing body".

The researcher Timothy Binkley says:

A "medium" is more than physical material: it is a channel of communication culturally defined in which the expressive possibilities are determined, at least in part, by cultural conventions that delimitate it.

Seen from this point of view the technological tools that permit teletransmission are converted into a "medium" for communication that allows another "medium" to join, a sort of "media" in interaction. Confronting these two "medium": the "dancing body" and "telepresence", hybridizes choreographic action between real/virtual- material/immaterial. Dualities that coexist and are reformulated putting in evidence the need to redefine the state of the body, its space and its time. A coexistence between art and technology that requests that we think and create dance in another way.

But in what way? In this context, we propose three key concepts for choreography from where we ponder. These basic elements are already presented in duals "naturally", that is to say:

Body: in a material, physical, organic state can not be untied from its perceptions which result in sensations, which also pass by the immateriality and "virtuality"⁸ of memories and thoughts.

Space: places where this organic body and objects (decoration,

textures) circulate, it is linked to the perceptual interaction of the body tying the outside and inside world of the dancer into an interactive process of these two states, material/immaterial-real/virtual.

Time: we define it as conventional chronological time, with determined measures and rhythmic, as well as a time linked to the “virtuality” of the mind and perception.

Taking these three variants our “dancing body”, the “medium” of dance, is displaced combining these dual states. However, the confrontation of the “dancing body” to “telepresence” further complicates this interrelation. Thus, the possibility that allows “telepresence” to connect with people, places, and the impossible temporalities in reality produces a transgression on the perceptions and conceptions of these elements. In consequence, the dancer and the choreographer are confronted to choreographic creation having to take into account the re-definition of the basic elements of dance composition.

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The project *Seuil-Lab* enables us to visualize in practice some of our reflections. We give below some tracks of this project taking into account that an in-depth analysis is impossible due to the amount of information and points approached. However, we believe that at least the dissemination of this work may contribute to dance and to us as researchers and creators of new horizons.

Seuil-Lab is a multidisciplinary project that brings together research and experimentation towards methodological and aesthetic innovation for dance and the use of new technologies. The main tools assembled are: videoconference, live camera and software for creation in real time. This project is conceived and directed by Vivian Fritz, along with the collaboration of a group of researchers, artists and technicians in Strasbourg, France. *Seuil-Lab* has been supported by different agencies and countries in its different phases, while maintaining a continuous collaboration with the P. Catholic University of Chile and the Aesthetics Institute, through Gonzalo Leiva, co-director in the latest versions of *Seuil* and the National University Network (REUNA), Chile. We distinguish also the collaboration of the artists Konic Thtr, Spain, the University of Chile through Rolando Cori and Colombia through Ivette Jimenez and Fabian Lotteau.

The first experience *Dance at the threshold of the world* (2009) is inspired on a story by Mario Benedetti, “Their love was not simple”, which says:

From the reflections that originated from the concept “Threshold” would result the laboratory project *Seuil-Lab*. This concept is conceived as a space for encounter for one or more “places”. This encounter crosses

the “material” spaces from its origin of connection (theater, dancers, public) and the “immaterial” space projected on the stage as images. The computer signal that intersects in the cyberspace is the threshold symbolically “concrete” and “virtual” at the same time.

From a technical point of view, the experiences in 2009 and 2010 were based on a videoconferencing device installed in a concert room in Chile and another in France. The camera was installed under a screen displayed in the middle of the stage. This allowed direct visual communication for the dancers and created a “round” scene: half “real/material” (dancers and audience of flesh and bone) and half “intangible/virtual” (dancers and audience on teletransmitted images). This spacial hybridization forced the choreography to be thought of as if the audience surrounded the dancers. The choreography had to be conceived aware of this particularity to avoid turning the back to the audience for too long, as well as considering the frame of the camera. Other elements had to be considered in the creation, such as the lighting: for the theater and the camera, or the projection as an annexed source of light, among other influential factors.

The interaction of the dancers as images and in flesh and bone needed reflection and work in improvisation that considered this referential change.

From a perceptive point of view, the “dancing body” was constrained by the loss of certain senses such as touch, enhancing others, such as sight. The fatigue from the over convening of the sight and the permanent attention of these non conventional spaces affected the level of concentration and interpretation of the dancers. Also, it became necessary to improvise looking for other experimental forms facing the perceptive phenomenon that was presented.

The audience was also considered, not just as a passive agent, but as a collaborative one. At the end of the show there was a dialogue with the audience thereby retrieving their experience and reflections. Some of the comments were related to: the innovation of the performing arts, diffusion and perceptions.

In the experience *Seuil in progress* (2011-2012)⁹ we managed to give a closure to the first stage of this project by establishing a process that could solve the problems and interrogations of the previous experiences in the course of a year. Improvisations in dance and sound, organization of conferences and workshops were some of the strategies implemented to solve the problems. Finally, a one week residence on a permanent connection between Chile, Colombia and France concluded in a public performance.

Here we integrated a more complex technical device, with three interconnected points (Chile, Colombia, France) in addition to live cameras on the dancer in France that made it possible to see what the audience in Chile perceived. A camera on the musicians, who were playing live, was projected on stage. Another camera on the audience in France and another on the audience in Chile sent a signal by streaming

on the web, being able to see the same performance from two different points of view.

The 2013 experience, “Sill: bond of dreams” (2013)¹⁰ opened another phase in the creation in which the format of presentation changed to a performance/installation. Research took place at the astronomical observatory *Cerro Tololo*, Chile. The purpose was to explore the work and reflection methods of the scientists in relation to time, space and matter which could enrich our work. The principle of inspiration were the telescopes as giant “teletransmitters” that connect distant universes to the earth.

The installation was carried out in the Atrium Building, an audiovisual center at the University of Strasbourg. The installation of devices included: four in direct cameras installed in front of each musician (projecting their image in real time on the windows of the building), a camera crane followed the movements of the dancers in the hall and cameraman followed the actions of the dancers. A technician was responsible for deciding, in real time, which cameras to project on the windows.

Furthermore, a work in real time with cameras installed on the astronomical observatory and a dancer on the spot were monitored and transmitted by the Spanish artists *Konic Thtr*. They used a software, Max/MSP/Jitter, which made it possible to choose and to dialogue with the live images of the observatory, the dancer and images of the universe. Finally, two cameras, one inside the building and another outside transmitted images in real-time by streaming on the site of the University, a technician chose the moments to diffuse from one camera or the other. The performance, which lasted 15 min, was repeated three times so that the public could choose different points of view of the creation.

The main issue was “the concern of the sky”, a concept that astronomers are seeking to spread since the light pollution is killing the stars. This reflection went through an aesthetic dialogue between earth/sky, up/down, material /immaterial.

The characteristic of *Seuil-Lab* has been its methodology of collaboration between researchers, scientists, artists and technicians in permanence. The goal is to exchange and create from the disciplinary specialties and the technological dialogue for new creations of dance with the use of “telepresence” and images in real time. Much yet remains to explore and work. What keeps us motivated is the immense capacity of a universe still little explored and where we are convinced that new form of artistic creation and diffusion for dance can be generated.



Figure 1. *Umbral in Progress* (2011-2012)
Theater room in Strasbourg, live images of Chile and Colombia.
Photo, Seuil-Lab team.



Figure 2. *Umbral: bond of dreams* (2013).
Inside the Atrium building, Strasbourg,
live images from the Cerro Tololo Observatory, Chile.
Photo, François Schnell



Figure 3. *Umbral: bond of dreams* (2013).
Outside the Atrium building, Strasbourg,
live images of the musicians located inside.
Photo, François Schnell

Conclusion

The multiple possibilities for experimentation and artistic creation that allow the technologies open to a universe little explored. Creations are mostly limited by economic resources and the need of technical expertise by the choreographer.

The dancers are under other parameters of interaction facing the body, space, time and use of “telepresence”. These elements modify the perceptions transgressing the logics of choreographic thinking used until today.

The relation “dancing body “ and “telepresence” confronts us to the existential dynamics of the present, a bipolarity and permanent interconnection between spaces and people in distance. Dance, with its sensible position towards the world, is established as the possibility to visualize in another way these social, perceptive and communicative changes that affect our relation between individuals. At the same time, it shows us how “telepresence” (in our case) can interact as a duo toward new artistic creations.

The danger for dance is to fall into technical glare, “spectacular/commercial”, in which the poetic universe of dance that connects us with the non visible of the human soul disappear disguised in special effects and “free” forms.

The universe yet to know and conquer depends on the seeds that we, as guides of sensitive movements, can contribute to this madness of cold commercial machines.

Endnotes

- 1 *Seuil-Lab* concept that unites the word « Seuil » (threshold) and « Lab » contraction of the word laboratory.
- 2 Translated from French into Spanish by the author of this article. Paul Valery *La philosophie de la Danse* (1938). A document produced in digital version in the framework of the collection “Les Classiques des sciences sociales” directed and founded by Jean-Marie Tremblay. Web Site: http://pedagogie.ac-montpellier.fr/danse/stageO912/valery_philosophie_danse.pdf (p.4) (consulted on 10/10/2013)
- 3 Le Breton, *Histoires de corps: a propos de la formation du danseur*. Resource center for music and dance. Paris 1998.
- 4 Translated from French into Spanish by the author of this article, extracted from the book by L. LOUPPE (2000) *Poétique de la danse contemporaine*, Bruxelles, Contradanse. p.61
- 5 Word that makes reference to the joint sensations relative to the movements of the body.
- 6 Definition of concepts on the site «*Medicina a distancia*». (Consulted on 15/10/2013) <http://www.medicinaadistancia.com.mx/index.php/telemedicina/conceptos/telepresencia.html>
- 7 Telephone signal that permits the transmission of sound and video through Internet.

- 8 Pierre Lévy reveals that the opposition between “real” and “virtual” is not relevant, thus seen from a philosophic point of view, they don't oppose one another, rather to the current. LÉVY, Pierre, *Sur les chemins du virtuel, qu'est-ce que la virtualisation?* <http://hypermedia.univ-paris8.fr/pierre/virtuel/virt1.htm> (Consulted on 10/10/2013)
- 9 Video available on UTV, site of the University of Strasbourg. http://utv.unistra.fr/video.php?id_video=299
- 10 Video available on UTV, site of the University of Strasbourg. http://utv.unistra.fr/video.php?id_video=299

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