UNIVERSITY OF GOTHENBURG

Chans: The Automatic Variations

Time and presence in *Automatic bai Chans*

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Summary

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This text is an examination of specific questions coming mainly from performance studies, related to the development of an installation and performance piece titled *Automatic bai Chans*. The first chapter deals with the concept of time. By means of confronting different texts from literature, reflections on cinema, and performance studies, I aim to formulate a theory of how time is dealt with in performance art. In the second chapter I will parallel the relation between Euclidean and non-Euclidean geometries, with the relation between theatre and performance. I will deal with how performance is positioned towards interdisciplinarity, theatrical competencies, the concept of presence, and the question of representation. At the beginning of the third chapter I will present a description of the artistic project. Then I will examine the relation between expanding the process of musical composition, and the process of developing the installation. Finally I will address the issue of the potential tension that arises between the human body and the geometrical space where the body eventually performs. I will confront how this tension is managed in *Automatic bai Chans*, with how it was managed by the Futurists or by Oskar Schlemmer at the Bauhaus, in the beginning of the 20th century.

Keywords: Media Art, Performance Art, Installation Art, Musical composition, Latin American Literature, Film, Twentieth-century Art, Geometry.

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Undefining time

> *"[...] tan saturado y animado de tiempo está nuestro lenguaje que es muy posible que no haya en estas hojas una sentencia que, de algún modo, no lo exija o lo invoque."* JORGE LUIS BORGES: *Nueva refutación del tiempo*[2]

In this sentence from the prologue to a text – originally written in 1946 – whose purpose is, apparently, to deny the concept of time, Jorge Luis Borges[3] warns the reader about the inherent impossibility of avoiding the mention of the concept of time itself – or other tacit temporal implications – in his article. He also makes the reader aware of the contradiction in the title of the text, because presenting it as a *new (nueva)* – or as an *old* – refutation of time ascribes it a temporal connotation, and thus, establishes the concept which was intended to be undermined. This contradiction in terms was actually deliberate. The purpose of his refutation of time was then to make room for word play and verbal puzzles which he found amusing: "it is quite bold to think that a coordinated group of words (philosophy is not other thing) can resemble the universe too much."[4]

However, the concept of time may have actually undergone a significant metamorphosis during the last hundred years. Particularly, according to Stephen Hawking, the fact that "up to the beginning of the [last] century people believed in an absolute time. That is [...] all good clocks would agree on the time interval between two events."[5] But after 1905, as a consequence of the special theory of relativity, "time became a more personal concept, relative to the observer who measured it"[6]. Then, in 1915, Albert Einstein

> proposed what we now call the general theory of relativity. [...] Before 1915, space and time were thought of as a fixed arena in which events took place, but which was not affected by what happened in it. This was true even of the special theory of relativity. [...] The situation, however, is quite different in the general theory of relativity. Space and time are now dynamic quantities: when a body moves, or a force acts, it affects the curvature of space and time – and in turn the structure of space-time affects the way in which bodies move and forces act.[7]

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[1] In jazz and popular music *intro* refers to the introduction of a musical piece

[2] "[...] since pretty saturated and animated of time is our language, it is quite possible that there will not be a sentence in these pages which, in some way, does not invoke it or demand it." JORGE LUIS BORGES: New refutation of time. [3]: 236.

[3] Argentinian writer (1899-1986).

[4] [3]: 155.

[5] [9]: 72

[6] [9]: 72

[7] [9]: 19-21.

But have these profound changes in the concept of time transcended the domain of theoretical physics? "Are there other ways of relating to time than those that can be measured?"[8] asks Swedish choreographer Efva Lilja. Has the notion of time within art had an important transformation during the last hundred or more years? In an excerpt from a conference, included in a documentary directed by Mikhal Leszczylowski, Russian filmmaker Andrey Tarkovsky argues that cinema specificity as a medium relies on its faculty of relating to time by printing or fixating it:

> Cinema is the only art that operates with the concept of time. Not because of its developing in time, because so does music and theatre and ballet and other art forms. I mean time in the literal sense. After all, what is a take? From when we say *action* to when we end by saying *cut*, what is happening? It is the fixation of reality, the fixation of time. The conservation of time for us to keep forever. No other art form can fixate time except cinema. So film is a mosaic of time.[9]

What I find interesting about Tarkovsky's claim – in spite of the fact that not only cinema, but also sound recording and video, implicitly, have the faculty of fixating time – is that we might venture from it a parallel between the origins and development of cinema, and the formulation of the special and general theory of relativity: cinema might be understood as a catalyst for significant changes in the way different art forms deal with the concept of time. Has this actually happen? For instance, Chantal Pontbriand[10] says that Richard Foreman has pointed at the important influence of cinema in the experimental theatre of the 1960s. Likewise, Philip Auslander[11] suggests that the work of conceptual performers of the 1970s is characterized by "the absorption of a filmic epistemology by performance." Does this mean that time in performance is isomorphic to time in cinema? Does performance art somehow operates with the awareness of – or relates to or plays with or refutes – the faculty of fixating time? In the first chapter of this text I will attempt a theory of how time operates in performance. I will show how is this theory articulated in the installation and performance works Angela Hoyos, my partner, and I have developed for the thesis project.

Performance core ex-plot-sion

In the introduction of her book *Performance art: from futurism to the present* RoseLee Goldberg[12] says that a restricted definition of performance

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[8] [15]: 36.
[9] [14]
[10] Canadian performance theorist.
[11] American performance theorist and critic.
[12] Goldberg is a South African Art historian, critic, curator and author writing on performance art.

would immediately negate the possibility of performance itself. [...] Indeed, no other artistic form of expression has such a boundless manifesto, since each performer makes his or her own definition in the very process and manner of execution.[13]

In turn, Auslander says that "the now notorious collapse of distinctions between media and between 'high art' and 'popular culture' that characterizes the postmodern" makes it "necessary and desirable" to employ a broad definition of *performance* or, as he also puts it, "to make use of such a polyglot term"[14]. Later on he argues that even

> [t]he distinction between 'performance artist' and 'stand-up comic' or 'entertainer' is frequently more a difference of the performer's professional identification, the performance venue, and the audience than of the style or content of the performance itself[15].

Might we think of the term *performance* as a symbol or "undefined term" whose meaning is implicit in the system built by each artist? Or should we think of different variations of performance just as there are different variations of geometry which share the same minimal core? In the second chapter I will parallel the circumstances which, within geometry, led to the discovery of non-Euclidean geometries[16], with the questions and motivations which led to the emergence of performance art. Starting from the minimal core shared by Euclidean and non-Euclidean geometries, my argument – which has a *shared core* with Auslander's – will be that performance is an extension of the theatrical paradigm, not a radical opposition towards it.

An automatic *effect* from a performative *cause*

The piece we developed for our thesis project is somewhere in between installation and scenographic environment for live performances, and is titled Automatic by Chans. It may be used and exhibited in both contexts, and as such, it somewhat resist the limitations of a narrowly defined category. "When is one thing not always the same?"[17] The determining factor would be the implicit or explicit presence of the human body. In the first case I am

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[13] [8]: 9.
[14] [1]: 3.
[15] [1]: 127.
[16] Up to 1823, the axiomatic system defined by Euclid in his *Elements* was the only geometry people knew. In 1823 non-Euclidean geometry was discovered by Hungarian mathematician János Bolyai and Russian mathematician Nikolay Lobachevskiy. Still, these new variations of geometry share the same minimal core with Euclidean Geometry: the first four postulates of Euclid's *Elements*.
[17] Quoted from Douglas Hofstadter: American physicist and researcher in cognitive science, psychology and computer science. [11]: 158.

referring to the potential presence of viewers confronting the installation. In the second case I am referring to the actual presence of performers confronting the environment. A performance intended to be embedded in this environment was also developed as part of the thesis project. While developing in time, the automated actions of the environment and the actions of the performers can be seen in a relation of call and response.

Illustration 1: actual presence of performers confronting the automated environment. Photo by Tomoyuki Yago.

In relation to these installation and performance pieces, I find it quite relevant to address an issue discussed by Matthew Causey[18] in his book *Theatre and Performance in Digital Culture*: the conflict that might take place between the human body and the geometrical abstract space where the body performs. Specifically, Causey says that a scenographic environment which intends to create an illusion of

> a particular time, place or action [...] presents a problem, or aesthetic challenge, of how to manage the body of the performer [...] so that it conforms to the illusions of the stage.[19]

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[18] Causey is an American artist, lecturer and researcher working with theatre, performance and digital media.
[19] [5]: 69-76.

Causey claims that the use of "theatrical automata or various technical, scenic or plastic objects"[20] might be a "radical solution" to the tension between the material body of the biological actor and the illusion of perspective created, for instance, by a painting in the background or a virtual space – or space-time – projected in a screen. He says that these "radical solutions" ultimately aim to the elimination of the actor or the human body from the stage in theatre and performance. I will confront Causey's claims and concerns "of an antibiological or anticorporeal prejudice"[21] with an analysis of our installation work and how it deals with the presence of the human body within its automated setting.

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[20] [5]: 76.
[21] [5]: 81.

1. Time and variations

"With neither past nor future performance takes place."[1]

"[P]erformance unfolds essentially in the present time"[2]

Since my purpose in this text is to give an insight in our approach to time-based art[3], "pretty saturated" of and "animated" by time will be the following pages. In this chapter I will attempt a theory of how the concept of time operates in performance. My approach is similar to Chantal Pontbriand's in her essay *"The eye finds no fixed point in which to rest..."*: there, she aims to apply the arguments from Walter Benjamin's *The Work of Art in the Age of Mechanical Reproduction* to performance; in turn, I will extend the arguments from Jorge Luis Borges' *A new refutation of time* to formulate my hypotheses regarding time in performance. Drawing also from Philip Auslander's *From acting to performance*, Josette Féral's *Performance and theatricality,* and Andrey Tarkovsky's *Sculpting in time*, I will confront my hypotheses with an examination of some partial isomorphisms between performance and cinema. I consider this whole reflection a significant instrument in the development of, both, our performance and installation pieces. Specifically, the initial motivations and aims for implementing intermittence and discontinuity in *Automatic bai Chans* will be presented – *intermittently* – at the middle and end of this chapter.

A deliberate oxymoron

The procedure Borges follows in *A new refutation of time* is basically a *reduction to the absurd* – where he departs from a claim that would lead him to a contradiction, thus meaning the initial claim was false – whose initial claim is, precisely, "time does not exist". As a reduction to the absurd unfolds in time the contradiction is the final step. But the contradictions are exposed in Borges' text from the very beginning: if time were refuted, the notions of "newness" or "oldness" would be denied as well. The fact that the title of his article

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[1] [7]: 177.
[2] [17]: 155.
[3] I borrow the term time-based art or, more exactly, time-based media from British video artist David Hall, who introduced it through his writings and lectures in the beginning of the seventies. According to Hall, the term is "intended to encompass any work structured specifically as a durational experience". [10] 36(1).

comports a *contradiction in terms* does not escape him, says Borges in the prologue. He also says that "every language has a successive nature; it [language] is not suited to reason on the eternal, the atemporal"[4]. His deliberate oxymoron might be more than a subtle mockery; it actually bears a vertiginous paradox: a contradiction in terms would be a mechanism to refute time within a reduction to the absurd, whose purpose is to demonstrate the impossibility of refuting time.

In any case, Borges goes on to deny "*time* outside each present instant"[5] by means of extending the premises of the Idealist George Berkeley[6] – who denied *matter* as an "object behind the impressions of the senses"[7] and who "repeatedly denied absolute space"[8] – and Empiricist David Hume[9] – who denied "a subject behind the perception of changes"[10] and who also denied "an absolute space where each thing has its place"[11]. Borges sums his procedure as follows: "having denied matter and spirit, which are continuities, having denied space as well, I don't know why would we hold onto that continuity that is time"[12]. At the end of his article we arrive at this quote from Schopenhauer:

> Time is like a circle which spins infinitely... the descending arc is the past, the ascending arc is the future; above, there is an indivisible point that touches the tangent and is the present. Motionless like the tangent, that point marks the contact of the object, whose shape is time, with the subject, who lacks shape, because it does not belong to what is knowable and is previous condition of knowledge[13].

Schopenhauer's metaphor is very similar to an image from a Buddhist treatise of the 5th century titled *Visuddhimagga* and which I quote also from Borges: "Rigorously speaking, life lasts the same as one idea. Like a carriage wheel, when spinning, it touches the ground in one single point, life lasts as one single idea"[14]. Both this quotes bear a close relation with the lines

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[4] [3]: 245.
[5] [3]: 252.
[6] Irish philosopher (1685-1753).
[7] [3]: 251.
[8] [3]: 250.
[9] Scottish philosopher (1711-1776).
[10] [3]: 251.
[11] [3]: 241.
[12] [3]: 252.
[13] [3]: 255.
[14] Radhakrishman: Indian philosophy, I, 373 quoted by [3]: 255.

I chose as epigraphs for this chapter which suggest how performance deals with time according to Josette Féral and Chantal Pontbriand. Both claim that neither is performance concerned with the past nor with the future; just with the *single point where the wheel touches the ground*.

Now, according to Borges, Sextus Empiricus already denied "the past, that already was and the future, that is not yet, and argues that the present is divisible or indivisible"[15]. To this, Borges replies:

> It is not indivisible, because in that case it would not have a beginning connecting it to the past, or an end connecting it to the future, not even would it have something in between, because something that does not have a beginning or end can't have anything in between; it [present] is not divisible either, because in that case it would consist of a part that already was and a part that is not yet. *Ergo* it does not exist[16]

"But since past and future do not exist either..."[17]

In her essay Féral asserts that performance gets "to the point of saturating time"[18]. Pontbriand says that "Benjamin sees in actuality a temporal value, something of the greatest importance for contemporary art. [...] With performance, it is actuality which is all-important"[19]. Even so, if – having already denied the existence of the present – performance denies the past and the future it could be argued that – applying Borges' reasoning – performance intends to refute time. If we also extend Borges' argument about language – with its successive nature – being unsuitable to refute time – which contemplates the successive and the simultaneous –, wouldn't it be contradictory also to assert that performance – having a successive nature, as well – refutes time? Is it true that performance escapes all illusion? Isn't it holding onto the illusion that it refutes time? "We live in time, that is successive, but we try to live *sub specie aeternatis*."[20] I come up with this image: refuting time is the initial claim of a reduction to the

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[15] [3]: 254.

[16] [3]: 254

[17] [3]: 254.

[18] [7]: 173.

[19] [17]: 156.

[20] [4]: 125-126.

absurd whose derivative process is performance itself. I propose then that consolidating temporality through refuting time is one of the key features of performance. As Borges' text, performance would comport a contradiction in terms, perhaps a deliberate one. A device of self reference, a strategy to examine and even challenge its own mechanisms.

Time becomes "a more personal concept", 1st movement: three short variations

First variation

Before coming to Sweden I had not experienced the progressive shortening or lengthening of daytime[21]. In equatorial countries, daytime is constant all year through. The sunrise happens quite fast at around six in the morning, and then the sunset takes place – quite fast as well – at around six in the afternoon. Time, as I understand it and perceive it, is an ordered set of terms, a sequence where each term determines the next, and is in turn determined by the previous one. The progressive shortening or lengthening of daytime, as it happens in temperate zones, would comport such a sequence. On the other hand, if the terms – the days – are all the same – the daytime is constant –, then there would be no sequence, no set of ordered terms. There would be only one term, and it would exist on its own, outside the continuity of time, the term would become atemporal.

Second variation

When we arrived to Sweden in the first days of September, in 2007, I was quite amazed with having daylight until – or even after – nine in the evening. Of course, as the days passed by, daytime got shorter. Then, at the end of October, the clock shift took place and the fact that at five in the afternoon – or even earlier – it was already completely dark, dazed me. The progressive shortening or lengthening of daytime bears an ordered set of terms, a sequence where each term determines the next, and is in turn determined by the previous one. However,

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[21] On Earth, daytime is roughly the period on any given point of the planet's surface during which it experiences natural illumination from indirect or (especially) direct sunlight. [21]

at some point I realized that, as the days got shorter, I increased my tempo and later, in the spring, as the days got longer, I decreased my tempo. By executing these *accelerandi* – if the time spans were progressively shorter – or *ritardandi*[22] – if the time spans were progressively longer – I was trying to maintain an almost constant amount of activity, all through. Curiously, I found myself trying to deny the temporal sequence, trying to hold onto the illusion that all terms were the same, that, ultimately, there was only one atemporal term.

Third variation

In *Automatic bai Chans* – when used as an automated environment meant to embed actions executed by human performers – the "daytime" – the time the performers have to execute their actions in response to the automated actions of the environment – is always different and unpredictable. If the terms of a sequence are all the same, there would be no actual sequence, no set of ordered terms; there would be only one term, an atemporal one. On the other hand, if the terms are all different, but also random and unpredictable, there would be no sequence, just an uneven collection of unordered terms. Between these unordered terms there would not be any continuous thread. Each term is thus detached from the temporal sequence and from the others, and exists on its own. Neither is it a cause of the following term, nor is it an effect of the previous one.

That continuity that *was* time

According to Borges, some "Buddhist texts say that the world expires and arises again six and a half billion times a day"[23]. He goes on and quotes from *Visuddhimagga* again:

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[22] In music scores, the occurrence of the Italian terms *accelerando* or *ritardando* indicates that the performer must increase progressively the tempo, in the case of the first, or decrease progressively the tempo, in the case of the latter.
[23] [3]: 255.

> The man of the past instant – says *Visuddhimagga* – has lived, but will not live; the man of the future instant will live, but has not lived and does not live; the man of the present instant lives, but has not lived and will not live[24].

Tarkovsky, for whom time is "the very foundation of cinema"[25] have said, in turn, that "cause and effect are mutually dependent, forwards and retrospectively. [...] [H]aving made its effect, the cause is not then discarded like the used stage of a rocket."[26] Later on, he argues:

> In what form does cinema print time? Let us define it as *factual*. And fact can consist of an event, or a person moving, or any material object; and furthermore the object can be presented as motionless and unchanging, in so far as that immobility exists within the actual course of time.[27]

But the *fact* is that the actual operation of the movie camera consists of denying time as a continuity, by interrupting very often *the actual course of time*. The camera – interestingly mirroring Borges' lines on the Buddhist texts, which claim a very fast alternation of instants of birth and destruction of the world – takes a sequence of separate still images or frames – at a high rate. *Movement* and *continuous* time, in cinema, are an illusion played by the brain, which links the series of projected *separate still* images – twenty four each second – just as "every man is an illusion, dizzyingly played by a series of lonely and ephemeral men."[28] If cinema fixates time, it does so – paradoxically – denying time as a continuity.

Performance is said to have absorbed a "filmic epistemology". Perhaps this is what causes it to pursue "fragmentation and discontinuity (rather than theatrical coherence) in narrative"[29] or, in words of RoseLee Goldberg, that "the content rarely follows a traditional plot or narrative"[30]. I propose that performance arrives at disruption, dislocation and discontinuity in narrative by mirroring the *intermittent mechanism* of the movie camera – an instrument which denies time as a continuity, in order to capture time itself. But performance mirrors the operation of the camera partially. Féral says: "it [performance] is more interested in an action

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[24] [3]: 256.
[25] [20]: 119.
[26] [20]: 58.
[27] [20]: 63.
[28] [3]: 255.
[29] [2]: 54.
[30] [8]: 8.

as it is being produced than in a finished product"[31]. Consequently, performance does not capture time; instead, it just engages in the *process* of denying time as a continuity.

Time becomes "a more personal concept", 2nd movement: introducing Chans' operations

Our installation and performance works have served us as laboratory to test the ideas I just presented. This does not mean that we approached the practical work with a set of previously formulated theories. Paraphrasing Tarkovsky, the reflections in the theoretical field, and the experiments and explorations in the practical field have been "mutually dependent, forwards and retrospectively". What has taken place is a process of discovery[32], as Alan Kaprow[33] would call it.

In our performance work we have developed an intermittent mechanism which counters continuity by means of its own irregularity. Our intermittent irregular mechanism consists of unexpected random interruptions caused by the automated environment our actions are embedded in. In fact, the introduction of chance operations was first explored in the installation piece with the idea of altering slightly each reiterated sequence of automated events. This was intended to result in the piece performing an extension of the variation musical form. In turn, the idea of composing and presenting the piece in variation form came out of reflecting upon the connection between our previous performance works and the installation: we thought of the latter as an automated variation of our performances. But then, the idea of chance operations offered us a way to approach the situation, in which the installation is used as an automated environment that embeds actions executed by human performers; a strategy for challenging the continuity of time and a way of not imposing our – the human performers' – timing, but confronting the behavior in time of the environment.

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[31] [7]: 178.
[32] [19]: 226.
[33] American artist (1927-2006)

2. Geometrizing: *representing* geometrically

From intermittence and fragmentation I now turn to continuity. From the properties of cinema which performance derives and appropriates I now move to discuss the elements of theatre which performance shares and extends. The title of this chapter is a word play. One one hand, it encompasses my intent of drawing a parallel between the bifurcation that occurred in geometry in the 19th century, and the relation between theatre and performance. On the other hand, it refers to the permeation of performance by geometrical gesticulation. The latter – a strategy, advocated by the Futurists and by Oskar Schlemmer at the Bauhaus' Stage workshop, to manage the tension between the organic body of the performer and the properties of the "cubical, abstract space of the stage" – is crucial to my examination of how our installation and performance pieces deal with the presence of the human body. Finally, the title also encompasses a discussion, held towards the end of this chapter, on how performance is positioned regarding the concept of *representation* and the questions of meaning, signs and codes.

Articulation of a paradigm

> "… since no one ever insists upon his distance from something unless he is afraid of resembling it."[1]

To *geometrize* means to rigorously apply geometric methods or laws to another discipline. This is the path that, for instance, Baruch Spinoza[2] followed in his *Ethics*[3]. However, as I said above, I just use the term as word play; I do not aim to strictly geometrize theatre and performance studies. Instead, I present the basic bifurcation of geometry – in Euclidean and non-Euclidean – to instance the concept of articulation of a paradigm, and as a parallel to the bifurcation of theatre and performance.

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[1] [7]: 176.
[2] Dutch philosopher (1632-1677)
[3] Where by means of a rigorous system of axioms, definitions, postulates and propositions, inspired by Euclid's *Elements*, Spinoza successively argues *on God, on the nature and origin of the mind, on the origin and nature of the emotions, on human servitude,* and finally, *on the power of the intellect and on human freedom.*

Philip Auslander – referring to an editorial written by Richard Schechner[4] in 1992, titled *A New Paradigm for Theatre in the Academy* – proposes to apply the concept of paradigm articulation, instead of paradigm shift, to the relation between theatre and performance noticing that, in terms of scientific revolution,

> [Thomas] Kuhn (1970) stipulates that [...] a new paradigm not only replaces the existing one, but invalidates it (indeed, this is the only way scientific paradigms can be invalidated). Competing scientific paradigms are incommensurable and mutually exclusive: if you accept the new paradigm, you must reject the previous one.
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> […] [T]he relationship between Theatre Studies and Performance Studies is not best described as a paradigm shift. […] The evolution of Performance Studies out of Theatre Studies, Speech Communication, and Anthropology has the character of what Kuhn calls the articulation of a paradigm. By articulation Kuhn means the application and extension of a paradigm to new areas of research.[5]

Like Auslander, who also says that "despite the antagonisms expressed on both sides, […] the relationship between Theatre Studies and Performance Studies [is] one of continuity rather than rupture"[6], I do not think that applying the concept of paradigm shift or the idea of rupture is suitable to examine the relation between theatre and performance. I see performance as an interdisciplinary artistic approach, which keeps itself in an unstable condition by operating in the borders between traditional art forms. But asserting a radical opposition regarding the traditions of any of these more established art forms – theatre, in this case – is, in fact, a safe strategy leading to abandon the border condition and to move towards establishing itself as a dogmatic tradition, which is ultimately antithetic to performance.

The parallel postulate

From a reduction to the absurd, meant to demonstrate the impossibility of refuting time, we now move to a reduction to the absurd – or an intended proof by contradiction – which catalyzed a significant bifurcation in mathematics: from Euclidean geometry to non-Euclidean geometries. Geometry, in general, is concerned with the properties of space. Euclidean and

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[4] American professor of performance studies and founder of The Performance Group.
[5] [2]: 2-3.
[6] [2]: 1.

non-Euclidean geometries deal with spaces which may have some different properties. Euclidean and non-Euclidean geometries do not replace or invalidate each other. Thus, the ramification of geometry is an example of paradigm articulation. I will start now by giving a brief account of the circumstances which led to this branching process. First of all, what all the branches or variations of geometry have in common. Altogether, Euclidean and non-Euclidean geometries share the same minimal core which consists of four propositions, the first four postulates formulated by Euclid in his *Elements*:

(1)   A straight line segment can be drawn joining two points.
(2)   Any straight line segment can be extended indefinitely in a straight line.
(3)   Given any straight line segment, a circle can be drawn having the segment as radius and one end point as center.
(4)   All right angles are congruent.[7]

These four postulates are quite simple and that is, actually, one of the main causes that led to the discovery of non-Euclidean Geometries: the discrepancy between the simplicity of these four postulates and the complexity of the fifth one. The "problematic" fifth postulate says:

(5)   If two lines are drawn which intersect a third in such a way that the sum of the inner angles on one side is less than two right angles, then the two lines inevitably must intersect each other on that side if extended far enough.[8]

Douglas Hofstadter says that the problem with this proposition is that Euclid could not find any proof for it and had to assume it as true, however realizing that it was not as simple and transparent as the other ones. Several attempts to prove the postulate as a theorem, dependent on the other four postulates – instead of it being an independent axiom –, and to "free" the Euclidean axiomatic system "of every flaw" were made before the reduction to the absurd approach was tried by Girolamo Saccheri[9]. According to Hofstadter, "by 1763, at least twenty-eight different proofs had been published – all erroneous!"[10] Saccheri based his approach on

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[7] [11]: 90.
[8] [11]: 90.
[9] Italian mathematician Girolamo Saccheri came up with this idea of proving the postulate by means of a reduction to the absurd. According to Hofstadter, Saccheri "eventually […] reached a proposition 'repugnant to the nature of the straight line'. […] At that point he published his work under the title *Euclid freed from every flaw*". [11]: 90.
[10] [11]: 91

"some earlier work he had done in logic"[11]. The initial claim of his logical argument was then to deny the fifth postulate. Actually, the postulate, whose denial was the initial claim of the proof, was an equivalent of Euclid's fifth postulate, also known as the *parallel postulate*:

> Given any straight line, and a point not on it, there exists one, and only one, straight line which passes through that point and never intersects the first line, no matter how far they are extended.[12]

But what happened is that the intended proof never actually reached a contradiction. The initial claim of Saccheri's reduction to the absurd became the trigger for the paradigm articulation that took place in geometry. Different non-Euclidean geometries arose denying or refuting Euclid's fifth axiom in different ways. For instance, saying that through one point, not on a given straight line, two or more parallel lines to the first one pass, leads to *hyperbolic geometry*. On the other hand, saying that through that point not even one line parallel to the first one passes, leads to *elliptical geometry*. These discoveries led to questions about the use of everyday life terms within an axiomatic system, and the clash between the everyday meaning of these terms and the formal meaning ascribed to them by axioms or theorems. Because of their frequent everyday life use, some of these terms – like *point* or *line* – are tied with "preconceived images" or "preconceived notions" of what they "must mean"[13]. But the "great realization of the discoverers of non-Euclidean geometries"[14] was that the meaning of such terms can be "*determined by the set of theorems (or propositions) in which they occur*"[15]. *Point* or *line* are treated as undefined terms which would "get defined in a sense: *implicitly* – by the totality of all propositions in which they occur, rather than explicitly, in a definition"[16].

Variation on *The parallel postulate*

First, from Euclidean geometry to non-Euclidean geometries; now, from theatre to performance. Which elements of theatre does performance share? In which ways does

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[11] [11]: 91
[12] [11]: 93.
[13] [11]: 92.
[14] [11]: 93.
[15] [11]: 93.
[16] [11]: 93.

performance extend theatre? Pontbriand says that the phenomenon of performance gives emphasis "to a device which is akin to theatre, that of spectator/ stage/ spectacle, seen as process."[17] In turn, Féral proposes that theatricality is composed of two elements: a performative one, related to the *"realities of the imaginary"*[18], and a theatrical one related to the process of conveying meanings by relying on *"specific symbolic structures"*[19]. According to her, theatre draws almost exclusively from the second component, while performance draws from both components. Féral also says that it is important to note that "theatricality cannot *be*, it must be *for* someone." I propose that performance is a post-cinema theatre. Both performance and theatre essentially create a situation in which an individual or a group presents or represents before others. Both performance and theatre have the property of developing in time, but – as stated in the previous chapter – performance also extends the range of time operations of traditional theatre by appropriating mechanisms from cinema. Both performance and theatre may draw elements from other art forms, but performance *blends* these elements in an *interdisciplinary* way, while traditional theatre – and sometimes, even cinema – *arranges* them in a *multidisciplinary* way.

But, perhaps, the crucial factor of the bifurcation of theatre and performance is the re-examination and reconsideration of theatrical competencies. If denying the Euclidean fifth postulate led to the discovery of non-Euclidean geometries and to question preconceptions of what certain terms *were supposed to mean*, the reflection upon the question theatrical competencies and the preconceptions that may be tied to them led to the emergence of performance art. The difference might be that in geometry, the strategy of denying the parallel axiom was not meant to lead – although it actually did – to the discovery of new geometries. On the other hand, the reconsideration of theatrical competencies was provoked by what Goldberg calls a "disregard for antiquated forms"[20] which was meant to lead – although it actually did not – to a radical paradigm shift. However, that disregard Goldberg refers to, comes mainly from movements which – curiously – advocate geometrical gesticulation.

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[17] [17]: 154.
[18] [7]: 178.
[19] [7]: 178.
[20] [8]: 103.

Gesticulating geometrically: variation on *Articulation of a paradigm*

The Stage workshop – directed by Oskar Schlemmer at the Bauhaus from 1921 until 1929 – resisted particularly the conventions within the dance tradition, and consequently "imposed no qualifying requirements on the students beyond their will to perform"[21]. Goldberg says that "with a few exceptions, those students who joined Schlemmer's course were not professionally trained dancers"[22]; for instance, "one of the dance students, Andreas Weininger, was also the leader of the famous Bauhaus jazz band."[23] Filippo Tommaso Marinetti[24] had said before that he admired variety theatre because neither did it have any *tradition* nor masters nor *dogma*. Goldberg notices that, though variety theatre actually had its traditions and masters it was "its *variety* – its mixture of film and acrobatics, song and dance, clowning" and its *lack of story-line* "that made it an ideal model for futurists performances."[25] In fact, Futurists "made no separation between their art as poets, as painters or as performers."[26] In turn, Schlemmer's saw in performance and painting, complementary media. His way of working with performance made use of painting as theoretical research. Thus, an interesting relation between interdisciplinary artistic explorations – or the collision of elements coming from different art genres or categories – and the questioning of theatrical competencies – and of the conventions by which traditional art forms are classified as well – began to take shape.

"Performance became accepted as a medium of artistic expression in its own right in the 1970s" says Goldberg. However, this does not mean that in the seventies a radical paradigm shift took place. As Goldberg also says, there has been

> a long tradition of artists turning to live performance as one means among many of expressing their ideas. […] [W]henever a certain school, be it Cubism, Minimalism or conceptual art, seemed to have reached an impasse, artists have turned to performance as a way of breaking down categories and indicating new directions.[27]

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[21] [8]: 103.
[22] [8]: 103.
[23] [8]: 103.
[24] Italian poet and author of the Futurist Manifesto.
[25] [8]: 17.
[26] [8]: 14.
[27] [8]: 7.

If performance is a way of "breaking down categories" or a "re-examination" and a "shifting of fields between codes"[28] from different art genres, it seems contradictory to think that performance – having this *in-between*[29] *nature* – and theatre are *radically opposed.* Reflecting upon "preconceived images" or "preconceived ideas" tied to theatrical competencies – to question their meaning[30], says Kaprow – has opened a way for artists with nontheatrical backgrounds[31] – or training – to engage in live actions which bring down "the limitations of more established art forms"[32]. This is a crucial point about performance art. But, as Kaprow has said as well, to question competencies does not mean to automatically pass reprobative judgments on training – and trained artists[33]. "Every performance constitutes its own genre, and every artist brings to it, according to his background and desires, subtly different shadings that are his alone"[34], says Féral. Questioning, or better, re-examining competencies has more to do with realizing the limitations a specific background may bear.

Trying to escape representation

> Indeed theatre cannot do without the subject (a completely assumed subject) […] Performance, however, although beginning with a perfectly assumed subject, brings emotional flows and symbolic objects into a destabilized zone – the body, space – into an infrasymbolic zone. These objects are only incidentally conveyed by a *subject* (here, the performer), and that subject lends himself only very superficially and partially to his own performance.[35]

Drawing from Féral's lines, Auslander says: "postmodernist performance undoes the concept of authoritative, theatrical presence"[36]. In turn, most performance theorists discuss two strategies to undermine classical presence: escaping representation, and resorting to mediation. By defying representation performance intends to counter the opacity of the theatrical code and aims for what Pontbriand calls "the transparent sign […] it [performance]

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[28] [17]: 154.
[29] [17]: 158.
[30] [19]: 226.
[31] [2]: 1.
[32] [8]: 7.
[33] [19]: 226-227.
[34] [7]: 174.
[35] [7]: 177.
[36] [1]: 50.

signals more than it signifies"[37]. Following a similar reasoning, Féral says that "performance is the absence of meaning."[38] But I wonder if the strategy of rejecting theatrical representation – with its "opaque signs" and coded meanings – only results in adding more layers to be decoded by the viewer, instead of eliminating the interpretation step that is intended to be removed. Like trying to prove a proposition within Euclidean geometry and ending up discovering non-Euclidean geometries. On the matter of the codes of art, and referring mainly to John Cage's explorations in chance music, Hofstadter argues:

> Of course, if the purpose is to instill a […] sense of the world devoid of categories and meanings, then perhaps such art is merely intended to serve […] as a catalyst to inspire the viewer to go out and become acquainted with the philosophy which rejects 'inner meanings' and embraces the world as a whole. In this case, the art is self-defeating in the short run, since the viewers *do* ponder its meaning, but it achieves its aim with a few people in the long run, by introducing them to its sources. But in either case, it is not true that there is no code by which ideas are conveyed to the viewer. Actually, the code is a much more complex thing, involving statements about the absence of codes and so forth – that is, it is part code, part metacode, and so on.[39]

Might we ask then if a performer, who seeks to escape representation, does not end up representing that she is not representing? I agree with Hofstadter on the impossibility of "break[ing] down the notion that art is one step removed from reality"[40] – either by turning down representation or by other means. Auslander suggests that in the impossibility of escaping representation, what takes place instead is a challenge "of representation through representation [as] a crucial postmodernist strategy of resistance." This takes me back to the hypothesis I proposed in the previous chapter, in relation with time operations: in spite and because of its awareness of its own temporal nature, performance intends to refute time. As well, it intends to refute presence, in spite and because of its awareness of its inherent dependence on presence. Both are contradictions in terms which destabilize performance. These strategies of destabilization would be meant to distance performance from the condition of being a comfortably established art form.

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[37] [7]: 157.
[38] [7]: 173.
[39] [11]: 704.
[40] [11]: 703.

3. Automatic bai Chans

After proposing a theory of how time is dealt with in performance, and discussing the relation of continuity between theatre and performance, I will now extend and explain further two specific issues which I introduced in the previous chapters: the time operations taking place in Automatic bai Chans, and the question of how we intend to deal with the presence of the human body in our installation and performance pieces. The first, originally motivated by personal experiences I referred in the first chapter, in relation with conditions of constant and variable daytime. The latter, derived from a strategy advocated by the Futurists and by Oskar Schlemmer at the Bauhaus' Stage workshop, actually aiming to manage the tension between the bodies of the performers and the properties of the space which embeds their actions.

Illustration 2: Automatic bai Chans.

Describing Chans' operations

Automatic bai Cchans is a time-based installation consisting of two main physical elements: a figure made of sewed discarded cloths, whose head is tied to a motor suspended from the ceiling; and a rope – attached to it are a blank sheet of paper and an open envelope – fixed on both ends and moved in circles by a fan attached to one of its ends. The piece has three main sound elements as well: a musical composition titled *ö*, the sound of the motor on top of the figure and the sound of the sheet of paper attached to the rope when the latter is put in motion. The piece performs in a loop a scene whose form is binary. In the first part of the scene, the duration of the events – the figure or the rope or both put in motion, the lighting in the space changes – and the moment in time when they happen , are determined by the form of the musical fragment. In the second part of the scene the music has stopped, the density of activity is reduced, and the duration and moment in time when the events happen – if they do – is set to be random. The following table contains a more detailed account of the time structure of the piece:

Time (minutes, seconds)	Event
00:00	The spotlights and the motors are turned off. The introduction of the musical piece – any of the five variations – is heard in the darkness. Beginning of part A.
00:53	The fan is turned on and the rope begins to move. A spotlight directed to the blank letter is turned on as well.
01:20	A second motor is turned on and the figure begins to move. A spotlight now directed to the figure is turned on.
02:00	The spotlights are turned off. The objects are left in motion. The sound of the motor attached to the figure and the sheet of paper attached to the rope are heard in the darkness.
02:27	The music stops. The spotlight of the figure is turned on. The corresponding motor is turned off.
02:33	The spotlight of the figure is turned off. The figure is put in motion again.
02:37	The spotlight of the letter is turned on. The fan is turned off, the rope stops.
02:43	The spotlight of the letter is turned off. The rope is put in motion

	again.
02:57	The spotlight of the figure is turned on. The corresponding motor is turned off.
03:00	The spotlight of the letter is turned on. The fan is turned off, the rope stops again.
03:06	The spotlight of the letter is turned off. The rope is put in motion. The spotlight of the figure and its motor are left on and off respectively.
03:26	The fan is turned off, the rope stops, its spotlight is turned on. The figure is put in motion. Beginning of part B.

Table 1: Timeline of the initial sequence of events

During part B, two different gestures – a recording of the sound of the sheet of paper when the rope stops, and a repeated musical motif fading in – might be eventually triggered. The moment in time when any of these happen is randomly determined. Likewise, at a random moment in time, the fan might be turned on and the motor of the figure would be stopped then.

Theme and variations

> *"A person with a feel for rhythm can walk into a factory and hear the machine noise as a composition. If we expand that concept to include light, behavior, weather factors, moon phases, anything (whether it's a rhythm that can be heard or a rhythm that is perceived, i.e., a color change over time – or a season), it can be consumed as music."[1]*

The overall structure of Automatic bai Chans, as it loops in time, can be mapped onto the variation musical form[2]. I said before that the decision of shaping the piece in the variation form came out of our reflection on the relation between our installation work in its early stages and our previous performances: we initially realized our installation as an automated variation of our own performances. As I see it now, our work with the installation has consisted, to a great extent, of *expanding* the concept and process of *musical composition.*

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[1] [22]: 161.
[2] A form in which successive statements of a theme are altered or presented in altered settings. The theme may range in length from a short melodic motif or harmonic scheme to a complete melody of one or more strains. […] In the 18th and 19th centuries the theme was usually stated first and was followed by a number of variations – hence the expression 'theme and variations'. [18]: 536.

On compositional tools

Because of the programmed randomness – affecting the moment in time when some gestures happen or not – in the second part of the automated performance, *Automatic bai Chans* results in *a series of varied statements*. The music played at the beginning of each statement is, as well, an altered reiteration of the music played in the previous statement – the basic material remains the same, but the density of the texture or the presence of certain sound objects, melodic or harmonic lines might change. The different variations of the music are actually different mixes from the original multi-track recoding of the composition. In some of these mixes the main melodic lines are muted, letting only the background lines to be heard; in some sections of certain variations the whole program is muted, except the percussion; in others, the percussion is the part of the program that is muted. What results is a set of five different arrangements of the piece of music. The installation program picks these different arrangements of the music sequentially – not randomly – at the beginning of each automated performance.

An "unsuspecting" agent

When a recording of a musical piece is played through a sound system, or the composition is actually performed live, it causes "the air in the performance space" or the listening room "to be sculpted into something"[3], says Frank Zappa[4]. What if the composer, not only tries to force "his will on unsuspecting air molecules"[5], but also lets the air backfire at the piece? Of course, the air always backfires at the piece somehow: for instance, the temperature and humidity of the air may change slightly – or even not so slightly – the tuning of the instruments. But what if the material used in the piece is specifically selected by virtue of its actual *aerial malleability*? This question *shaped* our decisions on the materials we used to realize the physical objects of the installation: when the objects are put in motion, the air in the

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[3] [22]: 161.
[4] American composer and rock musician (1940-1993)
[5] [22]: 161.

performance space "sculpts" the "unsuspecting materials" into something. This happens particularly in the case of the suspended sheet of paper, whose shape is less determined a priori than that of the discarded clothes. In the case of the latter what will be in fact modeled by the air is the movement itself: the resistance of the air adds various – sometimes unexpected – nuances to the simple movement induced by the motor above the head of the figure.

Illustration 3: aerial malleability of "unsuspecting" materials.

The automatic call and the biological response

Reflecting upon the process of developing our installation led us to ponder the possibilities of using it as a setting to embed our live actions in. From a situation of automated performance, we moved towards a situation of automated environment. In a way, flipping over the Futurist sought progressive elimination of the human body from the stage[6]. Not from the "body-as-itself", to the "actor's body de-formed or re-visioned as machines through costuming or scenic interventions", and arriving finally to "the complete absence of the body, or any recourse to

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[6] [5]: 81-87.

anthropomorphizing"[7]. Instead, from the implicit presence – rather than absence – to an explicit presence of the human body.

According to Matthew Causey, the Futurists, and later Schlemmer at the Bauhaus, were concerned with adapting the human body to the geometry of the stage and the elements of the setting. Schlemmer, for whom "the history of theatre is the history of the transfiguration of the human form", turned out with this analysis of the problem:

> Man, the human organism, stands in the cubical, abstract space of the stage. Man and Space. Each has different laws of order. Whose shall prevail? Either abstract space is adapted in deference to natural man and transformed back into nature or the imitation of nature. This happens in the theatre of illusionistic realism. Or natural man, in deference to abstract space, is recast to fit its mold. This happens on the abstract stage.[8]

For both, Schlemmer and the Futurists, it was clear that the laws of the abstract space should prevail, and this is why both advocated executing geometrical, abstract and mechanical movements, and a distortion of the natural body by means of the costumes. Futurists, as well as Schlemmer, also introduced "puppets or mechanical animated figures" which performed together with the actors. Eventually, as a radical strategy for satisfyingly solving the difficulty of how to deal with the body in relation to the setting, the Futurists resorted to actorless performances like Giacomo Balla's *Fireworks* where "the only performers […] were the moving sets and lights"*[9]*.

However, for us there is no reason why either the laws of the geometrical abstract space or the laws of the natural body should prevail. We do not aim to an unquestionable compatibility of the human body with our installation. The feeling of strangeness that arises, is what interests us, it is what we aim to provoke. When I use the term *implicit presence* instead of absence, in relation to the *automated performance,* I refer to the *potential* presence of viewers, which the installation will eventually confront and even challenge. In turn, when I use the term *explicit*

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[7] [5]: 82.
[8] Schlemmer, O., F. Molnar, et al. (1961). The theater of the Bauhaus. Middletown, Conn., Wesleyan University Press: 22. Quoted by [5]: 80.
[9] [8]: 23.

presence I am referring to the *actual* presence of performers in the *automated environment*. In the last case, the viewers are invited to witness the conflict. In any case, the work does not intend to eliminate the presence of the human body. Quite the opposite, as the piece invites the air to engage in shaping its materials, it asks as well for the presence of human bodies – viewers or performers –, it asks to be challenged back.

a. *b.* *c.*

d. *e.* *f.*

Illustration 4: images from the performance. Photos by Aoife Giles (a,e), Steven Ladouceur (b,f) and Anastasia Melekou (c,d).

We developed a series of scenes and actions involving text, music, objects we had already built[10] – used as experimental sound instruments[11] – and movement, to perform in the

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[10] [13]

[11] [12]

automated environment. Each scene or action comporting its internal narrative catalyst, but without aiming at narrative coherence for the whole. As performers, our relation with the environment is not limited to confronting its spatial laws, but also its temporal laws. Regarding the latter, we decided that our approach would be *not to control* the environment, not to impose our own temporal laws while performing. We did modify slightly the program of the installation, though. When the installation behaves as automated environment, during part B there is virtually no activity at all: it becomes an *intermission* during which we perform. What results then is a call and response interaction between the set of automated gestures performed by the environment, and the events taking place in the human performance. The end of the intermission – whose duration is programed to be random, and therefore variable – is like a *deadline.* We are aware of the deadline approaching, but we are not certain at all when will it actually arrive. Eventually, during the performance, we would have to

(intermission, time to wind the watch)

Positive and negative spaces, passive meanings

> *"Death stands there in the background, but don't be afraid. Hold the watch down with one hand, take the stem in two fingers, and rotate it smoothly.*[12]

In a chapter titled *Figure and ground* included in *Gödel, Escher, Bach*, Hofstadter – drawing from the visual arts – expands the classic opposition between positive and negative space to the domain of formal systems and rules of inference. Specifically, he presents different ways of formulating rules of inference which will capture the property of compositeness of numbers as *figure* or *ground* – composite numbers as figure and primes as ground, and vice versa.

What if we apply a similar reasoning and vocabulary, to the confrontation taking place in our performance? Does each sequence of

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[12] Quoted from *Instrucciones para dar cuerda al reloj (Instructions on how to wind a watch)* by Julio Cortázar, Argentinian writer (1914-1984). [6]: 25.

programmed automated events become an intermission in the biological performance, or does the latter become an intermission in the automated actions? Which one – the automated sequence or the biological performance – becomes the positive or the negative space – the figure or the ground? During rehearsals, Angela and I used to refer to the time spots when the installation was at rest and we were supposed to perform our actions, as intermissions. After a while, we realized that for Anna-Sara Åberg, the other performer, it was quite the opposite: for her, the intermission was the moment when the installation executed its automated actions and we were mostly at rest, instead.

A similar situation has happened with the viewers. Some of them have said to perceive the installation as the agent in control, and that we are merely filling the "time holes" in between the automated statements. For others, the installation is a background setting, and the narrative implied by our actions is broken and fragmented by sudden arbitrary interruptions. Some of them have said to experience the sensation that – putting it in Cuban writer Virgilio Piñera's words – "the event[s] [are] stopped in the moment[s] of most saturation"[13]. In the last case it would seem that – when the automated environment interrupts our actions – some viewers perceive an indefinite dilation of a certain present instant. Time is defined and determined when the installation performs its automated sequence, and when we perform our actions, times is random, variable, indeterminate; but, curiously, some viewers perceive the opposite. In any case, the term *intermission* interestingly becomes an undefined term or a term – borrowing Hofstadter's words – with a passive meaning: different performers and viewers would ascribe it different meanings. Similarly, different viewers would assign different

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[13] [16]

> tags – in terms of positive or negative space – to the automated or the
> biological performance.

… interrupt suddenly the action we are performing because the deadline arrives. Our action is left then to be carried on after the automated performance has taken place.

> Now another installment of time opens, trees spread their leaves, boats run races, like a fan time continues filling with itself, and from that burgeon the air, the breezes of the earth, the shadow of a woman, the sweet smell of bread.[14]

While winding the watch, life itself would have been interrupted; after winding the watch, a deadline is extended and life can take place again, for a while.

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[14] [6]: 25.

Outro[1]

Coming back in time – or back to time. In the first chapter I proceeded by extending and applying the arguments and reasoning in Borges' *A New Refutation of Time* to the domains of performance art. After confronting Borges article with Josette Féral and Chantal Pontbriand's thoughts on time in performance, I ventured this hypothesis: performance – a succession of gestures, actions and events – intends to refute time – which comports both, the successive and the simultaneous. Then, I traced back the fragmentation and disruption in narrative, which characterizes performance, to the operation of the movie camera. Performance partially incorporates the intermittent mechanism of the camera – a device that fixates time by, first, denying the continuity of time, interrupting its actual course. This partial appropriation of the camera operation is the *cause* whose *effect* is that performance intends to refute the continuity of *cause and effect*.

Then, postulating a parallel. In the second chapter I dealt with the term *articulation of a paradigm* – that is, applying or extending a paradigm "to new areas of research" – as a much more appropriate way of describing the relation between theatre and performance than the term *paradigm shift* – "a new paradigm not only replaces the existing one, but invalidates it". A parallel between the circumstances which led to the discovery of non-Euclidean geometries – a paradigm articulation within geometry –, and the motivations which led to the emergence of performance art, was my strategy to present my arguments. I argued that denying the fifth Euclidean postulate – or *parallel postulate* – is analogous to questioning or re-examining theatrical competencies. The first led to the discovery of non-Euclidean geometries; the latter opened a way for artists, without theatrical backgrounds or training, to engage in live actions characterized by the collision of elements coming from different – more traditional – art forms. This is a crucial point about performance art, however, keeping in mind that, questioning competencies means reflecting upon "preconceived ideas" or "preconceived notions" tied to a specific background, rather than automatically passing reprobative

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[1] In jazz and popular music *outro* is the term used for what in classical music is called *coda*: an added section at the end of the piece, analogous to the *epilogue* of a text

judgments on trained artists or training itself. The other crucial point about performance would be its recourse to certain mechanisms of self reference, particularly, deliberate contradictions in terms. In the first chapter I proposed that performance, in spite and because of its temporality, intends to refute time. In the second chapter, drawing from Auslander and Hofstadter, I proposed that performance refutes presence, in spite and because of its dependence on presence. Performance recurs to these strategies by which it constantly examines and re-examines its own system, and manages to maintain an unstable condition, to distance itself from a comfortable state of established art form.

Reiterating and altering. Extending and applying the concept and process of musical composition to other materials like, for instance, text. This text. I feel more comfortable dealing with sequences of pitches or rhythmic patterns, transforming and organizing them in different arrangements than dealing with verbal communication. This is why I approached the process of writing by applying procedures and methods coming from the craft of musical composition. The title of the text refers to the form of the artwork, specifically to the form of the installation, not to the form of the text itself – though some separate sections are written in variation form. Instead, the macro structure of this text is best described as a piece written in several movements which bear some – explicit and implicit – unifying threads among them.

Reiterating and altering. Mapping the variation musical form on to the overall structure of the installation, as it loops in time. This isomorphism between the variation musical form and the behavior of the installation has resulted of, both, introducing chance operations to affect the moment in time when certain automated gestures happen, and by resorting to the multitrack recording software as a compositional tool. The latter shaped the different variations of the musical piece used as soundtrack for the automated performance: different variations resulted of taking away different layers – either melodic lines, or the percussion, or even the whole program during a certain section – from the main mix. Realizing the installation as an automated variation of our previous performances is the cause whose effect is mapping its overall structure on to the variation form.

Reiterating and altering, expanding the concept of musical composition to other materials like, for instance, paper and discarded clothes. Usually, when a musical piece is performed live or played through a sound system, it causes perturbations to the air in the performance or listening space. In turn, we selected discarded clothes and a paper sheet, and gave a perturbing agency to the air in the performance space. In the case of the sheet of paper, the air in fact modifies its shape. In the case of the discarded clothes, whose shape is more determined a priori, what the air actually influences is the movement of the figure made of these discarded clothes. This does not totally flip over the usual situation, but creates a situation of call and response among the different raw materials.

Finally, a response to those reiterated calls. While working with the installation piece, we decided to explore it as a setting for live actions involving human performers. While the Futurists and even Schlemmer, at the Bauhaus, moved towards a progressive elimination of the human body from the stage, we moved in a different direction: from implicit presence towards explicit presence. Schlemmer and the Futurists were concerned with solving the conflict between the "organic laws" of the body and the laws of the "geometric abstract space" by adapting the first to the latter, or ultimately, by totally eliminating the body. We, in turn, are not concerned with finding a strategy to solve this conflict; it is this confrontation, this potential call and response, what we are interested in exploring. Consequently, our starting point is not a situation comporting the total absence of the human body. The automated performance relies on the potential presence of viewers for the confrontation to take place. Otherwise, it would be the role of performers to challenge back the automated environment, its spatial as well as its temporal laws. The automated gestures executed by the objects within the environment and the live actions of the human performers take place in a relation of call and response. The unsolved tension leads some viewers to ponder on the question of "who is in control?". For some of the viewers, an intermission happens when the installation executes its automated set of actions and the human performers are mostly at rest: the installation interrupts the biological performance. For others, the situation is quite the opposite: the human performers fill the time holes in between the automated statements of the installation.

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