Rudolf Laban's Graphic Philosophy:
Movement, Rhythm, Diagramming

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I confirm that the work presented in the thesis is my own and all references are cited accordingly.

Abstract

The thesis explores Rudolf Laban's practice-inspired theory through an understanding of temporality and spatiality in terms of the productive tension between movement and form. This repositioning of Laban's work allows us to appreciate his importance for contemporary media philosophy and performance studies. The key claim is that Laban's contribution highlights a co-dependency between, on the one hand, rhythm, intended as formed time and, on the other hand, the diagram, intended as dynamic space. It is argued that the dynamism of the visual diagram originates from the intensity of rhythm before this settles down as meter and form. Rhythm unfolds as an oscillation between flow and meter made visible in Laban's freehand drawings. The thesis considers these drawings as diagrams, in that they are graphic inscriptions partaking of the dynamism of rhythm and of the act of drawing.

Rhythm emerges from the process of research as the leading concept of Laban's work from the early 1920s throughout his life. Evidence to support this claim is uncovered largely in unpublished material both visual and textual, in German and in English. This was found in the course of research in the largest and virtually overlooked collection of Laban's work in England (National Resource Centre for Dance, University of Surrey) representing Laban's latest production (1938-1958). The material highlights the way in which Laban was thinking of both rhythm and of his drawings in terms of the relation of movement to structure. The thesis's understanding of this relation in Laban's work is afforded by a 'diagrammatic methodology', that is, a reflective re-organisation of the archival material deriving from the theories of the diagram of C.S. Peirce, Gilles Deleuze and Gilles Chatelet explored in the thesis.

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Chapter 1 - Introduction

Project Aims and Research Question

The project's aim is a re-evaluation of Rudolf Laban's work resulting in extracting it from the 'somewhat insular quality of the Laban community' (Moore, 1999, p.5) and therefore a redefinition of Laban's role in performance studies and beyond. Laban's unpublished notes and drawings are here examined from the point of view of the relation of structure to movement. Laban is seen struggling with the relation of form to flux and attempting to resolve it by way of his notion of rhythm and that of dynamic form.

My research question is thus: In which ways can an understanding of the relation of rhythm to dynamic form in Laban's work be said to shed light on contemporary debates focussing on the relation of movement to structure in media theory and performance studies? The project aims to answer this question by carrying through an exploration and reconstruction of what are claimed to be Laban's diagrammatics and rhythmology. This is achieved by an exploration of both English and German unpublished sources found in the course of research in the National Research Centre for Dance archive. This archive is the most comprehensive one in the UK and is the most representative of Laban's late work produced between 1938 and 1958. As both practitioner and theoretician, Laban's insights into the nature of the relation of movement to structure are particularly valuable, it will be argued, in that they open up a space for philosophy to be confronted with and informed by practice, and at the same time they redefine Laban the practitioner on the background of philosophico/theoretical frameworks, making his work accessible to further scholarship across disciplines.

Laban commentator Dick McCaw introduced Laban's main themes as those of holism of mind/body/spirit, tension and the relation of form to movement. McCaw maintains that Laban works on a system based on 'intention and ex-tension', where the former is sometimes called an 'inner urge' which is externalised in muscular contraction and movement in space (2011, p.13). He states, moreover, that the "most intractable and productive contradiction [in Laban's work] is between flux and form, change and stasis" (McCaw, 2011, p.349). In her 2009 book, Moore lays down the fundamentals of what she calls Laban's 'harmonic theory of movement' and points out how Laban speaks of harmony and balance as 'an oscillation between opposites'. She also points out, in

relation to Laban's systems that "the fundamental pattern of oscillation in the dynamosphere" (Laban's model for internal movement) "is the rhythmic shift between exertion and recuperation; in the kinesphere" (Laban's model for outer movement) "stability and motility endlessly alternate" (2009, p. 196). In their studies of the relationship of movement to form for Laban, however, these authors have not investigated how Laban's work might relate to other theoretical scholarship on this theme and how Laban's work might help in redefining and furthering this scholarship[1]. This is the main contribution of the present project. This approach entails putting Laban's work in relation to other fields of knowledge in an attempt to understand how his work as a practitioner can be said to be in dialogue with and impact on theoretical debates.

To reread Laban's system in the light of philosophical approaches to rhythm and the diagram will help shed light on how we might re-examine Laban's ideas. In this sense, this project is an experiment in 'performance philosophy' (see section below in this chapter), furthering Laban's legacy not in practice but in theory. In facilitating a dialogue between Laban's material and philosophy, the thesis does not aim to provide a philosophical reading of Laban's work. In this sense, C.S. Peirce's, Gilles Deleuze's and Gilles Chatelet's approaches to the diagram are not applied to Laban's drawings, but, rather, they afford a deeper understanding of Laban's own diagrammatics.

Research Context and Contributions of the Thesis

Movement and Structure

Laban considered the conundrum of the relation of motion and rest, movement and form on many different levels. He studied movement in relation to structure and geometry, but also in relation to topology and to a concept of force and tension, which he compared to the Bergsonian '*élan vital*'[2]. Movement for Laban is less something that has to do with bodies in motion and more a generative force that activates, shapes, moves bodies and patterns and creates them anew: it transforms and deforms them. It is this aspect of

[1] Moore's monograph focuses on the impact of artistic practices on Laban's work and remains bound, in this way, to a practitioner's field of enquiry.

[2] *Élan vital* is a fundamental concept of the vitalistic philosophy of Henri Bergson and is understood in the thesis as synonymous with 'life' and 'force' (Mullarkey, 1999, p.81). See Chapter 4 and 5 for a discussion of the relation between the philosophical approaches of Laban and Bergson.

Laban's take on movement that mostly resonates with post-structuralist approaches[3]. Laban never allowed, however, for 'flow' to overcome form, something that makes his thinking interestingly actual in its balance of these two opposites. In this respect, Laban saw bodies as vehicles of movement. In most of his studies, he didn't do away with bodies, on the contrary, he carefully studied them as constrains to movement. Bodies structure movement, contain and express it. In this sense movement, passing through bodies, necessarily acquires a structure. It is the interplay of these two notions, which might be, then, called rhythmic and diagrammatic.

The Tate Modern art gallery in London is hosting material in two wings of the building under the headings of 'Energy and Process' and 'Structure and Clarity', repurposing, it seems, two sides of a dichotomy that is persistent in Western thought since its origin[4]. In the *Timaeus*, Plato's famous cosmological dialogue, the Greek philosopher asks: "What is that which always is, and has no becoming, and what is that which is always becoming but never in any way is?" (1965, p.18). We find here laid out, in clear and succinct terms, the basic duality, which characterises Plato's thought, that is, that of 'being' and 'becoming', of the one and the many. Articulated as the tension between 'form' and 'movement', between the 'quantitative' and the 'qualitative', 'molar' and 'molecular', 'theory' and 'practice', 'structure' and 'agency' and, generally, 'knowledge' and 'experience', this relation has been expressed in different ways in the history of Western philosophy.

Even before Plato, the pre-socratic philosophers Heraclitus, Parmenides and Zeno of Elea exemplify the beginning of millennia of debates on the status of movement and process in relation to stasis. In Zeno's paradoxes, a good example of how this relation might be thought of, we find it as the relation of motion to rest. Aristotle reports that Zeno, a Greek pre-socratic philosopher born around 490 BC in Elea, invented several paradoxes in order to support Parmenide's philosophical system, and in particular three to support the latter's claim that motion did not exist. For the sake of example, we will look at the paradox of the arrow. This paradox focuses on the motion of an arrow towards its target and argues that in any given instant, or "now", the arrow is in fact

[3] See for example Massumi, 2002 and Manning, 2009.
[4] See Tate Modern's website: http://www.tate.org.uk/whats-on/tate-modern/display/tate-modern-displays/about-collection-displays .

immobilised and frozen. Motion, Zeno concludes, does not exist: it is a false impression derived from our mistaken experience of reality.

Many attempts were made to solve Zeno's paradox, one of which came from the French philosopher Henri Bergson. Bergson claimed that Zeno's mistake was to think of time and motion as spatialised entities, something that would render them infinitely divisible. Instead, Bergson advocated for movement as duration to be indivisible (although qualitatively discrete) and, therefore, impossible to be spatialised. In regard to the above paradox, Bergson pointed out that it is based on looking at the extremes of movement, but not at the interval of movement that is in-between them (see Mullarkey, 1999, p.15). In this way, Zeno's analysis favours stasis over process. Bergson claimed that this emphasis on structure and the quantifiable haunting Western philosophy allowed for the emergence of a deterministic view of society based on the meaningful succession of cause and effect in quantified space and time. This brings the French philosopher to focus on a philosophy of time and duration, which relegates space to a frozen sedimentation of movement and finds in time the ultimate refuge of freedom.

The relationship of movement to structure also came to the fore in the post-WWII period in relation to structuralism and post-structuralism. In his well-known critique of structuralism, Derrida states that the history of ideas will look at the latter as "a relaxation, if not a lapse, of the attention given to *force*, which is the tension of force itself. Form", he goes on to argue, "fascinates when one no longer has the force to understand force from within itself. That is, to create" ([1967] 1978, p.3). 'Force', or the transformative power of difference, as discussed by the author, is what structure and structural analysis misses and leaves behind, presenting a reality devoid of dynamism and eventless, predictable to its very core.

To further explain the workings of structure in relation to reality, Derrida compares structuralist methodology, which equates meaning with form devoid of force and works on the basis of an isomorphism between structural relations, with a 'panoramagram'. He describes the latter as an instrument apt to flatten the depth of vision in an image so that 'thanks to a more or less openly acknowledged schematisation and spatialisation, one can glance over the field divested of its forces more freely or diagrammatically" ([1967] 1978, p.4). What Derrida is arguing against here is structuralism's reduction of meaning

to form. He claims that it is in periods of dislocation when "this structuralist passion, which is simultaneously a frenzy of experimentation and a proliferation of schematisations, develops itself" ([1967] 1978, p.4). Contrary to this logic of representation, poststructuralist thinkers, such as Derrida and also Gilles Deleuze, propose that difference arising from repetition and originating from a creative force is at the core of an ontology of the event, as the new that constantly arises unexpectedly. It can be argued that the diagram, contrary to the 'panoramagram' mentioned above, is an attempt to overcome representation by inserting dynamism in structure (see Chapter 5). Equally, the attempt to understand rhythm as more than mere measure, can be said to partake of the same project (see Chapter 4).

Rhythm as Movement and Structure

Rhythm is usually defined as "a strong, regular repeated pattern of movement or sound" (OED), and it was conceived by Laban as an 'Ur-phenomenon', as exposed in Chapter 4. Rhythm is a fundamental notion informing Laban's practical and theoretical enterprise. The reception of the phenomenon of rhythm at the beginning of the twentieth century in Germany, where Laban was operating, was characterised by the duality of *Takt* (measure) and rhythm (flow). In this sense, rhythm repurposes the conundrum of movement and form. Laban takes an interesting position 'in-between' in regard to rhythm: he understands it as a phenomenon, which partakes of both the qualitative and the quantitative, of both movement and form. This is in contrast to the approaches of his contemporaries such as Ludwig Klages, Rudolf Bode and Emile Jaques-Dalcroze. The latter understood rhythm as regular meter, and Klages and Bode understood it as undivided flow.

From the beginning of Western thought, in the philosophical tradition stemming from Plato, rhythm has been that which gives cadence or measure to flow, as the inner harmonic structure of movement. As the philologist Emile Benveniste reports, however, Aristotle already gave to 'rhythmos' another meaning, as that form that has malleable contours. Another common etymology for rhythm is from the verb 'reo', which in Greek means 'to flow'. From this etymology rhythm seems to acquire a more chaotic, undivided nature. In fact it is this ambivalence, that between meter and flow that places it in relation to the more widely debate on movement and form highlighted above.

Rhythm has suffered from a tendency to equate it either to form or to an uninterrupted flow, as recent commentators pointed out (Goodman, 2012; Ikoniadou, 2014). As Ikoniadou rightly advocates in relation to media theory, the rhythmic should be seen as that which fills a tense gap between flow and form so that it becomes a medium of transformation. Ikoniadou recognises Nietzsche and Deleuze as among those that understood and exploited the possibility afforded by a holistic view of rhythm. However, Laban has been overlooked in these accounts of rhythm and his contribution is of particular interest in that it derives from an encounter between theory and practice. Indeed, the flow of movement is, for Laban, composed of elements or moods, it is a 'flow composed of micro-rhythmicalities' (Laban, n.d., L/E/24/23), highlighting in this way the relation of the flow of movement to what might be called a qualitative multiplicity.

Diagrams: Moving Forms

A diagram is commonly defined as "a simplified drawing showing the appearance, structure, or workings of something" (OED). However, philosophical understandings of the diagram, both in the analytical and continental traditions, expose the diagram's complexity and allow us to think of diagrams differently. In the thesis, the approaches to the diagram of philosophers C.S. Peirce, Gilles Deleuze and Gilles Chatelet will be analysed in order to shed light on Laban's own diagrammatics. In general, it will be argued, diagrams can be defined by their heuristic, haptic/corporeal and kinetic properties (see Chapter 5), and in this sense they reconnect to the theme of the relation of movement to structure.

The reason for focussing on diagrams and the diagrammatic in the thesis was provided by an initial exploration of the Laban Archive in Surrey and of the literature on Laban. Laban makes extensive use of drawings and cartographies to elucidate and to think *through* his theories on body, movement and space. It will be argued that Laban's use of a 'diagrammatic methodology', something that will be further defined in the course of the thesis, goes beyond his understanding of pictorial practices. An engagement with Laban's philosophical writings shows how the rationale for Laban's use of diagrams can be found in his project of creating a 'language of movement' as an alternative to written language and, on the other hand, in one of the underlying themes of his work, which is the relation and co-penetration of form and movement.

Diagrams have been argued to be "media that provide a point of linkage between thinking and intuiting, between the 'noetic' and the 'aesthetic'" (Kraemer, 2010) for their being (dis)located in the space 'in-between' image and text, saying and showing. It is in this sense that diagrams are investigated in the thesis through the philosophy of Peirce and his commentators, such as Frederik Stjernfelt and Sybille Kraemer. Peirce was the first who understood and theorised diagrams as *heuristic* devices. "All necessary reasoning without exception", he argued, "is diagrammatic" (Peirce, 1902, p.212). It can be argued, therefore, that a Peircean approach to diagrams is particularly suitable to critically assess Moore's assumption in regard to Laban's use of the diagram in his work.

In the continental philosophy tradition, Gilles Deleuze stressed the kinetic and haptic/corporeal nature of the diagram by arguing for the diagram's capacity to maintain a connection with the processual nature of reality through its 'analogical' property. Analogy is here intended by the philosopher as a creative tool, which overcomes representation (see Chapter 5). In his discussion of the diagram and diagrammatic Deleuze commentator John Mullarkey explains how "analogy is less prone to the errors of representation because it embodies its 'object' rather than depicts it" and expresses an "ambiguous, indefinite relation of subject-object intertwining" (2006, p.159). In this sense, then, the diagram can be said to partake of the process of reality and creating it anew.

The work of mathematician Gilles Chatelet has been inspirational in order to think of the relation of gesture to diagram or movement to structure in knowledge-production. As commentator Brian Rotman states "for Chatelet, diagrams coupled with gestures are the very means of ontogenesis, a principal strand in the becoming of mathematical ideas" (2012, p.256). Chatelet's "material/corporeal account of mathematics" (*ibidem*) sheds light on the embodied aspect of knowledge-production in Laban's unpublished work.

Intensive/Extensive

The diagram is an instrument that can be utilised both for scientific and artistic purposes. Susanne Leeb (2011) highlights the duality in the reception of the diagram specifying that in one case the diagram is seen "in terms of the potential for order and organisation" and in the second as "projective" (p.31). Leeb highlights how "this oscillation between

systematising and openness is inherent in the diagram" (p.31). This is mostly evident in the work of Rudolf Laban across his career (see Chapter 6). Laban's diagrams, from Kinetography[5], to Choreutics models and effort graphs, to his hand drawings show different degrees of communion of the scientific and artistic aspects of the diagrammatic. If in Kinetography the focus is on representing the movement of a body in space, from A to B, and work with a projected time dimension from the part of the viewer, Choreutics scales, join the rigidity of structure with the depth of colour and rhythm exemplifying an attempt to combine scientific discovery and systematisation of knowledge with 'projective' aspects of artistic research. Finally, effort graphs freeze the rhythmic dynamic in a single snapshot, inserting affective dynamism in the sign. The variety of uses that Laban makes of diagrams and that therefore make up Laban's diagrammatics is also noticeable in his hand drawings, which, it will be argued, render visible the passing of time and rhythm from an intensive to an extensive dimension.

Diagrammatic Methodology

By implementing the theoretical approaches to the diagram outlined in Chapter 5 in regard to the methodological approach of the thesis, a first step towards the utilisation of a diagrammatic methodology is proposed. This is done in Chapter 3 in relation to the process of research in the Laban archive. The current taxonomy of the archive was created by Laban's pupil Lisa Ullmann, but it lacks coherence and it has proven to be limited for the present project, as argued in Chapter 3. For this reason, it was necessary to re-arrange the material, both textual and visual. In order to proceed in this direction, the process of research was assisted by a diagrammatisation of the Laban archive. This allowed on the one hand, to quickly size the changes made on the current taxonomy of the material and rendered the understanding of these quicker and easier; on the other hand, it allowed for connections to arise between documents and drawings that would otherwise remain hidden. In this sense this process highlighted both aspects, that is, organisational and projective.

[5] Normally, this system of notation by Laban (see Chapter 6) is called either Kinetography Laban or Labanotation. In the thesis, it will be referred to it as Kinetography only.

John Cussans argues that

> diagrams – or more generally, visualisations of non-apparent systems, concepts, relationships, processes and ideas – help students to recognize and understand parallels and structural correlations between things in the world; their constitutive natures, their internal structures and relationship (Cussans, 2012, p.1).

In antithesis to approaches to the archive that work on 'presence/absence' assumptions (see Chapter 3), the embodied, processual, and textural approach to the archive afforded by diagramming is an analogical attempt to get closer to the material of this study by visualising 'internal structures and relationships' and in this way give rise to previously non-existing knowledge. In presenting a first step towards a diagrammatic methodology this project aims to make a contribution to research methodologies. Coleman and Ringrose claim that there is 'a need for methodologies capable of attending to the social and cultural world as mobile, messy, creative, changing and open-ended, sensory and affective, and that account for the performativity of method' and what they call the 'break[ing] down [of] the false divide between theory and practice' (2013, pp.1-2). In addressing the above-mentioned aspects of methodological research, this project aims to inserts itself in recent debates in the humanities and social sciences.

Laban Studies

The project engaged primarily with scholarship exploring Laban's main concepts and notation systems (Maletic, 1987; McCaw, 2011; Moore, 2009; Salazar-Sutil, 2012) and Laban's life and influences (Doerr, 2008; Karina and Kant, 2003; Foster, 1997; Guilbert, 2000; Preston-Dunlop, 1998). Because the thesis will not look at subsequent developments of Laban's work (Bartenieff and Lewis, 1980; Davies, 2001; Lamb, 1965; Longstaff, 1996; Moore and Yamamoto, 1988), this section of Laban's literature will not be discussed.

Among Laban's commentators, the one playing the most prominent role in the thesis is Carol-Lynne Moore. Moore's analysis of Laban's drawings held by the NRCD archive and what she claims being his theory of harmony in movement developed in the English

years (1938-1958) is the only monograph dedicated to a study of the material of the Laban Archive in Surrey. Looking at Moore's work is, therefore, of crucial importance for two reasons: firstly, the author based her work on the same collection of material explored in the present project. Secondly, Moore focuses on Laban's 'drawings' in order to expose Laban's 'harmonic theory of movement' and argues that these "can be seen as an important tool in his theoretical study of dance and movement" (Moore, 2009, p. 57), an affirmation that constitutes the point of departure of my project. Moore traces Laban's use of drawings back to his early career as a visual artist arguing that "Laban gave up art as a profession" but that "he continued to draw upon his artistic skills to model ideas about dance" (2009, p.3). Moore's description of Laban's artistic approach to dance and movement, exemplified in her argument that "drawing became [for Laban] a tool with which to explore dance" (2009, p.56) and that Laban used "art as a means for theorising dance" (Moore, 2009, p.10), is aimed at opening up an enquiry into Laban's methodology.

Moore utilises a 'hermeneutic approach' and she describes her way of proceeding as follows: "I assumed that he was modelling his ideas visually and that by looking at the drawings I would be able to apprehend the concepts represented" (2009, p.3). Departing from Moore's claim, Salazar-Sutil's recently focussed on Laban's 'graphic approach to movement analysis' (2012) with the aim of integrating it with motion capture technology. Salazar-Sutil maintains that 'Laban's theorisation could have only taken a visual approach if it had been developed using motion-graphic-technologies' (Salazar-Sutil, 2013, p.19) and he proceeds to claim that Laban's work suffered from a lack of engagement with the more advanced technology of his time. The thesis will refer to the work of Nickolas Salazar-Sutil specifically in Chapter 5, but, contrary to this author, the project understands Laban's graphic philosophy or diagrammatics as intentionally embodied. A contribution of this project is to problematise Moore's claim regarding the alleged heuristic aspect of Laban's 'visual models' by reading Laban's drawings on the background of philosophical theories of the diagram and providing an understanding of Laban's diagrammatics.

What seems to lack in Moore's (and Salazar-Sutil's) analyses in terms of Laban's relation to two-dimensional models, is the provision of a theoretical argument in support for the thesis regarding Laban's heuristic use of drawings as a methodology for dance.

Indeed, how can it be said that two-dimensional drawings afford thinking? In this sense, the present work aims at filling this gap by exploring a philosophical approach to diagrammatic reasoning. This aims to show the extent to which philosophy can shed light on issues raised by performance studies and vice versa and, in doing so, it contributes to current debates in performance studies, focusing on the relation of the latter with philosophy (see Cull, 2012). This aims at widening the impact of Laban's work inside and outside performance studies and, more generally, at delineating his contribution to the field of philosophical enquiry.

Contrary to Moore, moreover, this research focussed also on handwritten notes both in English and in German in order to reconstruct Laban's philosophical approach. Vera Maletic's *Body-Space-Expression* (1987) provides a clear and insightful outline of Laban's key concepts. The main contribution made by Maletic lies in her use of both German and English sources, which, she rightly argues, is the key to a *holistic* understanding of Laban's work. Recent publication of excerpts from Laban's German texts as part of the edited collection *The Laban Sourcebook* (McCaw, 2011) attempted to bridge the divide between Laban's German and English writing, responding in this way to Maletic's denunciation of a lack of connection between the first and last phase of Laban's work due to a language barrier. The collection puts together the voices of Laban's most prominent commentators, such as Carol-Lynne Moore, Valerie Preston-Dunlop, Vera Maletic, Warren Lamb, Evelyn Doerr and Dick McCaw himself. Important material in the edited collection includes excerpts from Laban's first German book *The World of the Dancer* (1920) and previously unpublished archival material taken from various archives.

In this context, the present project contributes to bridging the language divide by engaging also with the German documents held by the NRCD in Surrey (approximately 1,000) and other published and unpublished German sources. The importance of the NRCD archive, however, lies in the fact that Laban's Eukinetics and Choreutics projects, and his rhythmology, were developed mainly in his English years (1938-1958), and they form thus part of the content of the documents held by the NRCD archive, which is the largest collection in the country. Moreover, besides the work done with the archive material, unique contributions of the thesis are my translations from the German of Laban's article 'Eurhythmy and kakorhythmy in art and education' ([1921] 2014) and

part of Bode's book *Rhythm and its Importance for Education* ([1920] 2014). These texts were recently published (Bode, [1920] 2014 and Laban, [1921] 2014) with an introductory article based on Chapter 4 of the present project (Crespi, 2014). Especially for the sake of the main arguments in relation to rhythm, diagrammatics and dance-script, mainly unpublished documents have been used. Laban's rejection of Nazism was also found in a handwritten document in German, highlighting the need for further research of which this project takes part.

Besides Laban's autobiography, covering his life only up to the early 1930s, his life and influences have been described by his commentators as difficult to trace. This is due mainly to Laban's continuous changes of location (which are reflected in the scattered manner in which sources are held in different archives throughout Europe today) and his reticence in referencing his theoretical sources. The most significant biographies of Laban based on archival/historical sources are Evelyn Doerr's *The Dancer of the Crystal* (2008) and Karina and Kant's *Hitler's Dancers* (2003). As a biography, Valerie Preston-Dunlop's *Rudolph Laban: An Extraordinary Life* (1998) is often cited in secondary sources, but its avoidance of rigorous referencing makes it difficult to rely on in an academic setting.

In her introduction to Laban's biography, Preston-Dunlop states that: "[w]ith my publisher, David Leonard, it was decided that to reference every piece of information would make a tedious read, for hardly a sentence was written without making use of some document or conversation" (p.xiv). The code of Academic Integrity common to most Higher Education institutions in the UK and abroad provides reasons for the researcher to cite profusely her sources, such as to substantiate any statement made and enable others to check the evidence and accuracy of information. Considering these suggestions for academic integrity, it is possible to say that Preston-Dunlop's work on Laban's life is lacking in academic rigour. However, the absence of referencing which characterises some of Laban's commentators' works (see also Hodgson, 2001) can be said to be also due to the 'embodied' nature of knowledge transfer from Laban himself to what have been called the 'British Labanites' (Preston-Dunlop, 1998, p.x). Recent English-speaking scholarship, such as Carol-Lynne Moore's, and German one, such as Doerr's and Karina and Kant's have inaugurated a new wave of Laban studies, which this thesis wishes to contribute to, based on empirical (archival) evidence and thorough

referencing. In this context, providing archival references of what may be called common knowledge of some of Laban's concepts in this project is aimed at providing a solid ground on which to base future research on Laban also from a non-practitioner and non-'Labanite' perspective.

Doerr's account offers a detailed description of Laban's life and work corroborated by documentation found in archives both in German and in England. In *Hitler's Dancers* (2003) Karina and Kant explore German *Ausdrucktanz* and its major exponents in relation to National Socialism. Similarly, to Guilbert's study in French (2000). If Laban's English-speaking commentators have to a certain extent always depicted the master as distant from politics and as a victim of the National Socialist regime (see Chapter 2), the evidence brought about by Karina and Kant shows the extent to which Laban was actively involved with the National Socialists. The general view among commentators is that Laban never commented on this period of his life when in England (see for example McCaw, 2011, p.344). However, my research uncovered evidence of the contrary. Although this could not be investigated in-depth in the thesis, the evidence, related to a discussion of rhythm, is discussed in Chapter 2. This aspect of Laban's politics will be indicated in the conclusion as bearing potential for future research.

An important contribution to the contextualisation of Laban's thought and in particular of his notion of rhythm was provided by Dee Reynolds in her *Rhythmic Subjects* (2007). By outlining the "connections between modern dance, body culture, and 'life philosophy'" (2007, p.19) Reynolds shows how Laban's concepts of effort and rhythm were rooted in the cultural milieu of his time. Chapter 4 draws on this and other studies on rhythm in Modernity to explore Laban's context and connection to rhythm-related theories and practices. By looking at Laban's unpublished notes, it was possible, moreover, to provide evidence of his knowledge of the philosophies of Friedrich Nietzsche and Henri Bergson. This constitutes a contribution to an understanding of the relation of Laban's work to that of other thinkers based on archival documentation, rather than speculation.

The project was in part inspired by the edited collection of some of Laban's drawings and writings published by Lisa Ullmann in 1984 with the title *A Vision of Dynamic Space* (Laban, 1984). Ullmann's collection of Laban's work produced between 1938 and

1958 focuses on Laban's conception of space and movement, and alternates drawings and words. However, the book lacks a commentary to contextualise Laban's studies and Ullmann references drawings, but not the texts. For these reasons, this book functions best as an inspirational device, as opposed to an analytical study. In this sense, the present project aims to develop Ullmann's collection, by providing a context in which to speak of Laban's concepts of space and time and by making use of and reference both drawings and texts, allowing further research to build on these.

Performance Studies and 'Performance Philosophy'

The recent convergence of once separate fields as dance studies, performance studies and cultural theory has prompted debates and different views on how they may interact or speak to one another. Performance and cultural theorist Andre Lepecki, drawing the landscape or relationscape of dance, cultural theory and performance studies in the early 21st century states that the latter fields are consistently being brought together generating a "space of dizziness" (2001, p.2), a "generative space of thought" (*ibidem*) that is creative through tension.

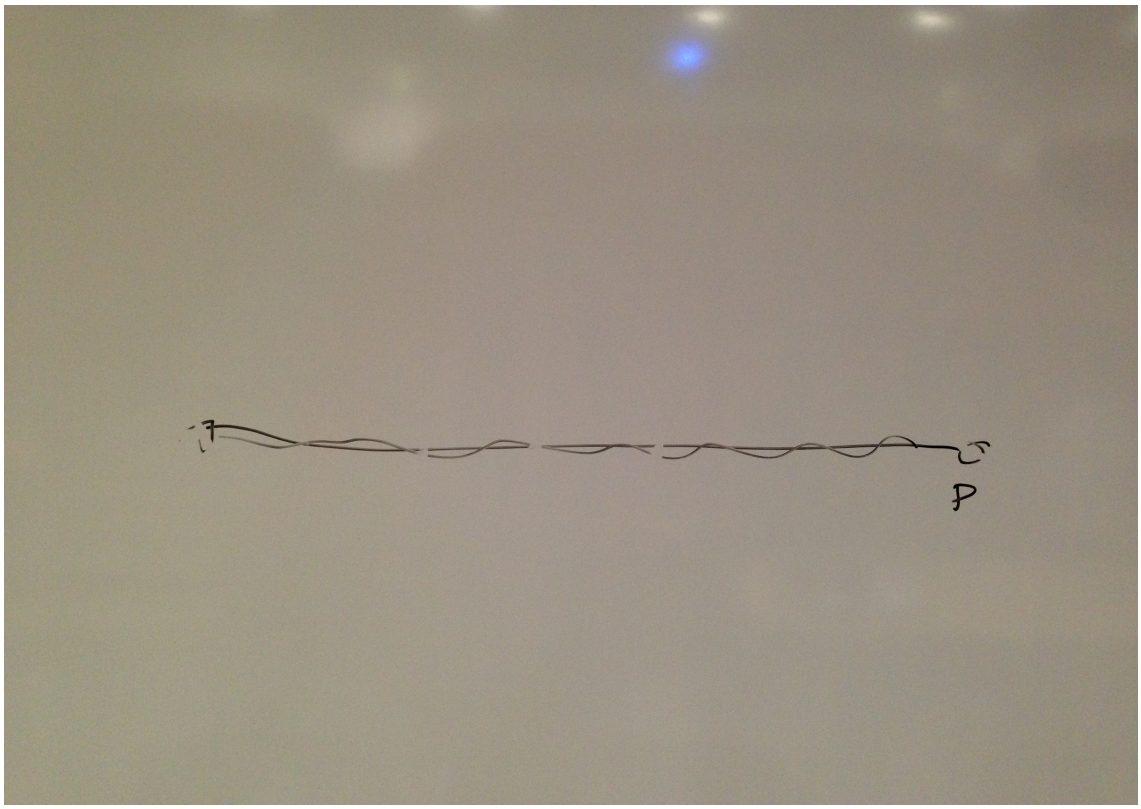


Fig. 1: Crespi, P. 2013. 'Diagrammatic rendering of the transcendent versus immanent debate in performance studies drawn by Laura Cull and Martin Puchner', University of Surrey: Performance Philosophy International conference.

In her *Theatres of Immanence* performance theorist Laura Cull proposes a reconsideration of the relation between theory and practice, philosophy and performance based on Deleuze's philosophy of immanence and calls for a reconsideration of performance "as a kind of philosophy" (2012, p.3) in an attempt to overcome what she sees as a tendency, in both performance and philosophy, "to *apply* philosophy to performance" (*ibidem*. Italics in the original). This approach would indeed reintroduce the alleged essential difference between theory and practice, which, arguably, lies at the bottom of the difficulties in finding a dialogue between the two.

The rationale for focussing on performance studies rather than dance studies, where Laban's scholarship usually locates itself, is provided by what performance scholar Richard Schechner defines as the "*fundamentally* relational, dynamic, and processual" (2002. Italics in the original) nature of the former. Schechner describes the field of performance studies as follows:

> Performance studies is unsettled, open, diverse, and multiple in its methods, themes, objects of study, and persons. It is a field without fences. It is 'inter' – interdisciplinary, intercultural, and (I hope) interesting. To be 'inter' is to exist between, on the way from something toward something else. Being 'inter' is exploring the liminal – participating in an ongoing workshop (p.3).

For Schechner the intersection of disparate subjects in performance studies deals with a space in between, the liminal. This approach is, then, in line with the general theme of the thesis. By connecting the fields of philosophy and performance the thesis contributes to current debates focussing on the relation of these two fields. These debates are taking place at present under the umbrella of 'Performance Philosophy', a worldwide network of academics that connect with the aim of establishing a new field of research. The main approach to the relation of performance to philosophy is in this milieu understood as a co-penetration, which does away with an essential difference between the two (Cull, 2012). The thesis explores in which ways the work of Rudolf Laban might inserts itself in these debates.

What is at the hearth of Laban's work, it is argued, is an attempt to construct a bridge between different realms. These are at times mind and body, the inside and the outside, theory and practice, science and art, movement and form. If this is something that was already individuated by various commentators as a peculiarity of his thought (Maletic, 1987; Moore, 1999; McCaw, 2011), it is here explored through the medium of rhythm and the diagram. The diagram has been defined by thinkers of various philosophical traditions as that which bridges two otherwise perceived to be separate but nevertheless intermingling realities, be these *res extensa* and *res cogitans*, virtual and actual, movement and form. In this sense, Laban's *oeuvre* can be looked at as the development of a diagrammatics. Moreover, Laban's notion of rhythm plays on the border between flux and form, something that resonates with philosophical considerations of this phenomenon and something that also highlights Laban's in-between approach.

By looking at how Laban dealt with the relation of movement to form the project aims at bringing forth a response coming from a practice-inspired theory. Laban's work anticipates that of others[6] for what regards his rhythmology and reinforces approaches to the diagram that highlight its actual, visual and embodied aspect. What is most striking is how Laban's practice is based on these same principles and it can be said to have been in dialogue with the theoretical apparatus, so that it is unclear whether practice gave birth to theory or the other way around. This resonates with recent philosophical approaches stemming from a corporeal, manual and practical perspective (Shusterman, 2008; Sennett, 2009; Connor, 2011, Henriques, 2011). In this context, the contribution of the thesis is that of reconstructing Laban the practitioner's philosophy in relation to other philosophical approaches. Laban, it is claimed, is unique in its ability to combine philosophical insight with practical achievements.

Synopsis of the Chapters

The argumentation of the thesis is developed as follows. Chapter 2 looks at Laban's life from the point of view of the development of his notation systems and his interest in rhythm. Besides introducing Laban and his work, therefore, the chapter aims at tracing the main themes of the thesis in their historical development. The question of Laban's collaboration with the National Socialist regime, one of Laban's scholarship's vexed questions, is here introduced and discussed on the background of new evidence found in

[6] See Further Work section of Chapter 7.

the NRCD archive and related to a discussion of rhythm. This aspect is here explored because it is claimed that Laban's unclear relation to the National socialist regime is one of the reasons why his work has so far received little critical attention outside of the application of his theories in the applied performance studies field.

The methodological chapter (Chapter 3) exposes the process of research in the Laban Archive, part of the National Research Centre for Dance (Surrey). The Laban Archive in Surrey is here placed in relation to other Laban-related archives in the country and overseas; a description of the archive's content and a brief historical excursus aim at highlighting its peculiarities and its importance for the present project. An exploration of theoretical approaches to the archive aims at showing how these informed the process of research. The chapter proceeds by outlining how the very practice of research 'transformed' the material at hand by way of a process of diagramming and of rhythmical alternation between the structure of text and the movement of research.

Chapter 4 introduces Laban's notion of rhythm both in the early 1920s and in the 1950s. The first part of this chapter looks at Laban's 'rhythmic ontology' in relation to discourses on rhythm in the Germany of the 1920s. The focus lays in the duality of *Takt* (measure) and rhythm in rhythm's theorisation in this period. The second part of the chapter explores Laban's attempt to grasp the nature of rhythm and his definition of it as a phenomenon characterised by both quantitative and qualitative aspects. Besides unpublished sources found in the NRCD Laban Archive, which help clarifying Laban's ontology, this part of the chapter focuses on two texts: Laban's untranslated German article 'Eurhythmy and Kakorhythmy in Art and Education' ([1921] 2014) and gymnastics theorist Rudolf Bode's untranslated book *Rhythm and its importance for Education* ([1920] 2014). The texts are translated here for the first time into English and highlight the different approaches of Laban and Bode in regard to rhythm. Bode's take on rhythm is here introduced in order to highlight similarities and differences with Laban's. These are explored and open up a space to speak of Laban's 'rhythmanalysis'. The last section of the chapter introduces other definition of rhythm by Laban found in the NRCD archive. This aims at showing a continuum in Laban's interest in rhythm. Moreover, by anticipating Laban's attempt at capturing and expressing rhythm graphically in the effort graphs (something that will be explored in Chapter 6), it introduces the necessity of exploring Laban's graphic philosophy or diagrammatics.

Chapter 5 starts by exposing Laban's project of a 'language of movement' and places it in relation to discourses and practices focusing on movement in the Germany of the 1920s. The problematics that Laban encountered in his attempt to devise a 'language of movement' are here analysed through published works and unpublished documents found in the NRCD Laban Archive. These problematics, it is argued, lie ultimately in the attempt to reconcile movement and form. The chapter proceeds to show how Laban thought of his 'forms' as being able to capture and at the same time express movement, something that has commonly been theorised as being a property of diagrams. In this chapter Laban's relation to the diagram and the diagrammatic starts being defined. As a first step towards this, the theories of the diagram of C.S. Peirce, Gilles Deleuze and Gilles Chatelet are examined. Diagrams, it will be argued, can be defined either by their organisational aspects (Peirce), by their creative/productive ones (Deleuze), and by their highlighting the embodied aspects of knowledge production (Chatelet). By looking at ways in which the diagram has been conceptualised in philosophy, the aim is to critically assess whether Laban's graphic philosophy can be called a 'diagrammatics' and how it might position itself with respect to these theoretical frameworks.

Chapter 6 focuses on Laban's notational systems and on his hand drawings from the point of view of rhythm and diagrammatics. In the first part of the chapter, the analysis focuses on Labans' Kinetography, on his Choreutics models and on the effort graphs. In the second part of the chapter, the focus is on Laban's hand drawings. Laban is shown to utilize diagrams in a variety of ways, something that highlights the multifaceted nature of Laban's diagrammatics. Rhythm is shown to be present as a main concern in Laban's notations in different guises. In particular, the workings of rhythms are shown to be visible in Laban's hand drawings through the interplay of repetition and difference. Here, more than in any of the other systems, rhythm is present both as a metric and as a non-metric, deformative force.

The conclusion of the thesis (Chapter 7) summarises the main features of Laban's diagrammatics and rhythmology as they emerge from the analysis of his drawings carried out in Chapter 6. The 'Further Work' section points out the potential of Laban's practice-inspired theory of rhythm for current discourses on rhythmanalysis, and stresses

the extent to which further research in the NRCD and other archives would be necessary for a wider appreciation of Laban's work.

Chapter 2 – Laban's Life and Work: Rhythm and the Moving Image

Rudolf Laban (1879-1958) was a Hungarian-born dancer, choreographer and movement theoretician. He started his training initially as an artist at the College de Beaux Arts in Paris, but focussed his interest subsequently on dance, the nascent modernist art *par excellence*, which he contributed to shape. Among his major achievements were the invention of Ausdrucktanz [Expressionist Dance], the creation of one of the to date most widely used system of notation of dance (Kinetography), and a thorough and predominantly overlooked wealth of studies on movement, rhythm and space, most of which carried out in the last twenty years of his life in England and documented by the material found in the National Research Centre for Dance in Guildford, Surrey. The Trinity Laban Conservatoire of Music and Dance in London and the Labanotation Bureau in New York evidence Laban's importance in the field of movement studies and dance education worldwide today.

Laban's early career: Paris, Munich and Ascona

Laban was born son of a military officer. He mentions in his memoirs that in his early youth he travelled with his father across the borders of the then Austro-Hungarian Empire. In one of these travels in 1896 Laban recounts seeing Dervish dances, something, he says, that affected him deeply and allowed him to experience the higher meaning of dance, which for the author resided in his therapeutic and cathartic features.

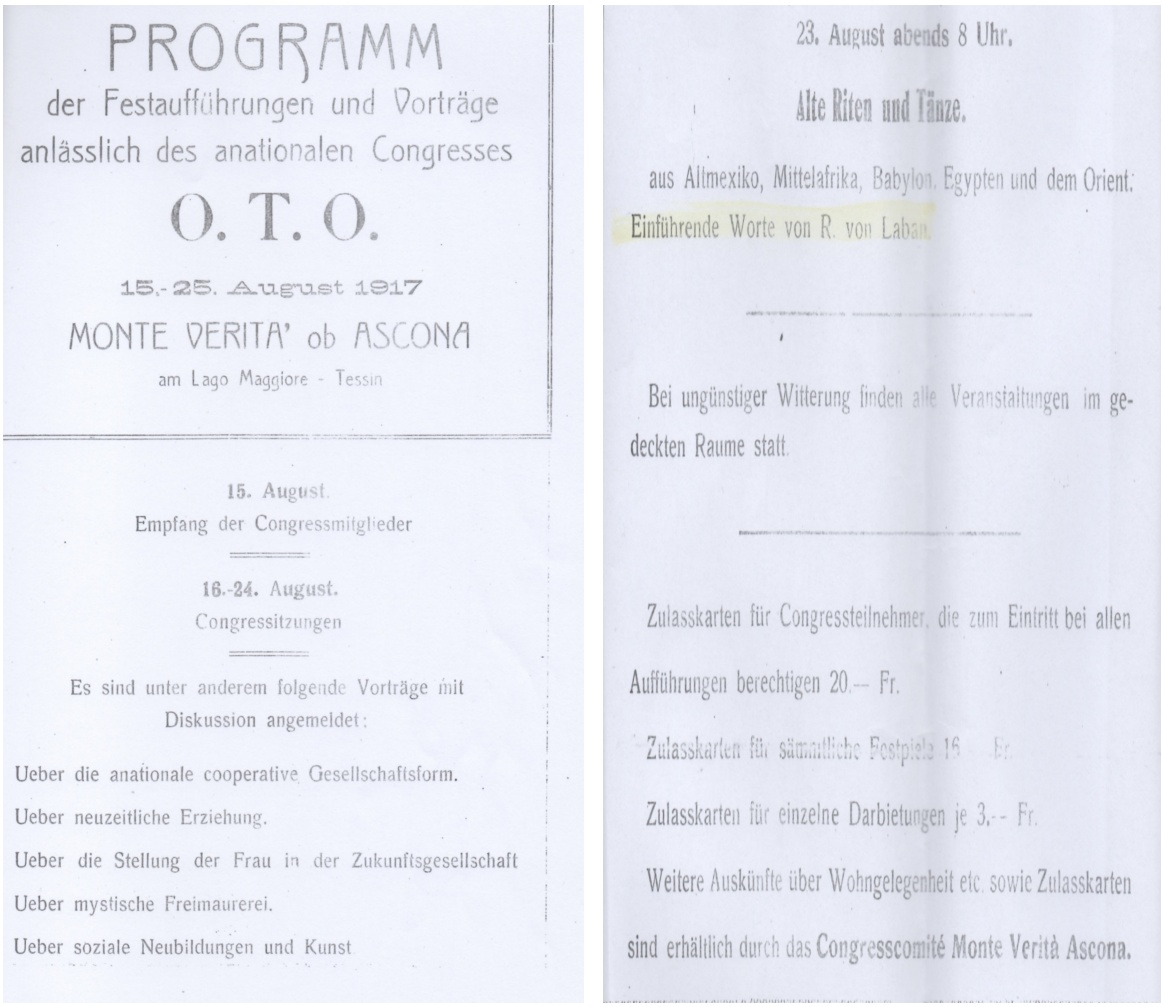
The young Laban started cherishing his inclinations towards the art world at an early age and he was particularly fascinated, initially, with theatre. The memorable day when he discovered *tableaux vivants* (Laban, [1935] 1975, p.11) whilst being an apprentice to a local artist, was among Laban's first experiences of movement, something that he connected with the pictorial: "awareness of movement", he states, "was strongly linked with the pictorial" (*ibidem*), something that brought him to the realisation that "in the 'moving image' lies hidden a tremendously enhanced expression of the human will and feeling" (*ibidem*). In a letter dated 1941 Laban recounts arranging 'living pictures' with friends for a festival. "It occurred to me", he remembers, "that the single 'pictures' and 'postures' could very well flow over into each other – and so we moved in a rhythmical way and with roundabouts" (Laban, n.d., L/E/23/68).

After a brief attempt to start a military career, which he abandoned after only one year, Laban married his first wife, the painter Martha Fricke and, after a brief stay in Munich, he moved with her to Paris, where he studied art at the Ecole de Beaux Artes, started researching dance notations and made a living by doing caricatures. When Martha suddenly died in 1907, Laban spent a period in Nice and Vienna of which very little is known. He then remarried to the singer Maja Lederer and lived in Munich from 1910 until the beginning of WWI. During this period he worked as an illustrator and continued his historical research on notation in his first studio in Theresienstrasse. For the first time in a long series of occasions, in 1912 Laban felt ill with a "pathological melancholic condition" (Laban, quoted in Doerr, 2008, p.53), the 'urban *maladie*' which he went to be cured from in what Doerr describes as "a sanatorium near Dresden frequented by the intellectual bourgeoisie" (24). Here Laban met Dalcroze's student Suzanne Perrottet, with whom he started an extra marriage relationship, which, subsequently to an agreement between the two women involved, transformed in a *ménage a trois*, which lasted until 1917.

In the Summer of 1913 and 1914 Laban organised his first Summer Schools in Monte Verita', located in Ascona, that is, in the Italian Swiss. This can be said to mark the beginning of Laban's career in the field of dance. In a piece written in 'unorthodox' German Laban explains how he developed an interest in dance, by saying that he perceived the space around him "full of forms that were waiting to be embodied. Rays, waves and stars shot forth in this invisible garden, appearing and disappearing" (Laban, n.d., L/E/25/18. My translation). He proceeds to explain how emotions, in their interactions with forms and colours appeared to him: "fluorescent nostalgia. Pride radiated straight upright and sorrow turned and curved" (*ibidem*). With time, so Laban's tale proceeds, he came to see this "wealth of flowing grace" sharper and sharper and saw "an amazing recurrence, a continuously undulating return and a balance of the forms" that invited him to follow "this colourful language of rays and waves not only with the drawing hand, but with the whole body" (*ibidem*). Laban's poetic explanation of his reasons to become a dancer and, then, to dedicate his life to dance, focuses on the forms or structures which in a way sedimented the motion of feelings by way of what he calls an eternal return.

Starting off his career as a dancer, choreographer and movement thinker, in Switzerland Laban worked, among others, with Suzanne Perrottet and, for the first time, the future heroine of German Dance, Mary Wigman. With Wigman in 1913 and 1914 Laban worked on space harmony and notation. During WWI Laban, Lederer, Perrottet and Wigman found refuge in Zurich, where Laban opened his first School and in Hombrechtikon, where plans to open a 'Laban Garden' started taking shape. The Laban Garden was to be a place to experience free and new, alternative ways of communal leaving (Doerr, 2008, p.55).

Laban's battle against conscription to take part in the war from the Hungarian government, which he won, and the attempt to bring forward too many projects at once, however, pushed him again on the limits of his mental abilities, something that resulted in exhaustion and in his moving away from the city and retiring to the countryside. In 1915 Laban became a father of Lederer's daughter Maja and Perrottet's son Allar. In February of 1916 Hugo Ball and the Dadaist opened cabaret Voltaire and Laban's ladies collaborated in different guises.



PROGRAMM

der Festaufführungen und Vorträge anlässlich des anationalen Congresses

O. T. O.

15.-25. August 1917

MONTE VERITA' ob ASCONA

am Lago Maggiore - Tessin

15. August.
Empfang der Congressmitglieder

16.-24. August.
Congressitzungen

Es sind unter anderem folgende Vorträge mit Diskussion angemeldet:

Ueber die anationale cooperative Gesellschaftsform.
Ueber neuzeitliche Erziehung.
Ueber die Stellung der Frau in der Zukunftsgesellschaft
Ueber mystische Freimaurerei.
Ueber soziale Neubildungen und Kunst

23. August abends 8 Uhr.

Alte Riten und Tänze.

aus Altmexiko, Mittelafrika, Babylon, Egypten und dem Orient.
Einführende Worte von R. von Laban.

Bei ungünstiger Witterung finden alle Veranstaltungen im gedeckten Raume statt.

Zulasskarten für Congressteilnehmer, die zum Eintritt bei allen Aufführungen berechtigen 20.— Fr.

Zulasskarten für sämmtliche Festspiele 16.— Fr.

Zulasskarten für einzelne Darbietungen je 3.— Fr.

Weitere Auskünfte über Wohngelegenheit etc. sowie Zulasskarten sind erhältlich durch das Congresscomité Monte Verità Ascona.

Fig. 2: Programme of the OTO conference in Monte Verita', Ascona. For source see Table of Figures pp.6-10.

In the Summer of 1917 Laban was back at Monte Verita' in Ascona and took part in the OTO International Congress organised by Theodor Reuss. Laban' school in Zurich went bankrupt in 1918 and he felt ill with influenza. After the war, he separated from his wife, who moved to Munich and started a career as a singer to support the now five kids. Laban went to Cademario, a convalescent home near Lugano in Swiss. After regaining health in the late summer of 1919 he moved with Dussia Bereska to Nuremberg, where, thanks to the influence of his friend photographer Adam Meisenbach, he organised an exhibition of his drawings. This and the lectures he was giving in the meanwhile were not enough, however, to gain the residency permit he needed to stay in Germany, so this period Laban moved often across the country.

Laban the Dancer's Master: Rhythm and the Moving Image

In 1920, having received permit to stay in Germany, Laban opened a dance school in Stuttgart and in the Summer he published his first monograph *Die Welt des Taenzers* [*The World of the Dancer*] with the editor Eugene Diederich, whom he met in Monte Verita'. Through Diederich he also published articles in the journal *Die Tat*, such as the text on rhythm discussed in Chapter 4. Laban's monograph, of which only small parts have so far been translated (see Sachsenmeier, 2011), was an attempt to look at the world from the point of view of choreosophy, loosely translatable with "the knowledge of dance-centred space" (Doerr, 2008, p.82).

In 1921 Laban became guest Ballet Master at the Mannheim National Theatre and in 1922-23 he opened a dance studio and theatre in Hamburg, where he played leading roles and experimented with movement-choirs. In 1924-25 die 'Tanzbuhne Laban' went on tour in Europe in Germany, Austria, Italy and Eastern Europe before financially collapsing in Zagreb. In 1925 Laban went also on a duo tour with dancer Gertrud Loeszer, but, although relatively renowned, Laban was still financially struggling. In this period, he started working on a project for a film called 'Dance is Life', which will, however, never be realised.

In an 'authorised version' of Laban's biography by Lisa Ullmann dated 1958 and found in the archive it can be read that in 1926 "Laban was on a tour of the USA, lecturing in numerous places from coast to coast and found tremendous response to his ideas. His travels", the document goes on to say, "took him to Hollywood where he directed movement in several films with well-known producers" (n.d., L/E/48/18a). This is mentioned also in Laban's 1935 biography, where the author recounts some anecdotes of his travels, mostly unrelated to his work[7]. Among other episodes, he describes an encounter with the red Indians and their dances and some of his filming trips. Notwithstanding Laban's claiming that he hadn't any intention to carry on his work in the USA ([1935] 1975), in a curriculum that appeared in the *Observer* newspaper in 1951 Laban writes that he was lecturing in New York, Los Angeles, San Francisco, Chicago and that he founded the 'Kinetographic centre' under the direction of Irma Bok in New York. (n.d., L/E/48/18b).

[7] It remains unclear how Laban sponsored his trip to the USA in 1926.

This period of Laban's work highlights the author's interest in the relation of dance to film. But why, then, did Laban not embrace the nascent cinematic perspectives that were offered to him in that period? Why notation and the graphic, one might say, diagrammatic approach to movement, rather than cinema? In a note written during his trip in the USA in 1926 and entitled 'The death of the European Art-dream' (n.d., L/E/49/16. My translation), Laban looks at the European ideal of art as the 'nostalgia for beauty' in a rather dispirited way. The artist could continue producing works of art for Laban, "but the production will not find any market, nor resonance", which, he explains, was to be found only through the possibility of being seen: "where there's no market", he maintains, "the product remains unseen" (*ibidem*). Laban identifies film as the only territory, that is, market territory, where it is possible for the artist to show its talents, on a very simple ground: "because film is so economically organised, as the rest of the production branches" (*ibidem*). Laban explains how in the 1920s an artist could not content herself with being known in his own city only, but needed to be the "representative of the nation, the race and the continent" and needed, therefore to increase her productivity, something that went beyond her capabilities if not supported by a helpful medium of propagation and communication.

An addition to the advantages of the 'bewegtes Bild' [moving image] is its capacity to "speak the international language of gesture", something that renders also dance, "provided it is rightly organised – potentially capable of great resonance" (Laban, (n.d., L/E/49/16. My translation). It seems then that a natural development of Laban's personal plans for his future career would have been to look into the binomial of dance and film, something that in fact he did shortly after his return from the USA. In this period of filming explorations he would also focus on rhythm (see also Franco, 2012). In an article in the journal *Die Schoenheit* he states that "the power of the image is always a second-degree expression, while the central element lies in rhythm, which is also what dance and film have in common" (Laban, 1928, p.195). 1926 is an important year for Laban's career: he publishes three monographs: *Choreographie* (1926), *Gymnastics and Dance* (1926a), and *The Children's Gymnastics and Dance* (1926b), and he establishes the *Choreographisches Institut* [Choreographic Institute] in Wurzburg. Moreover, he has an accident on the stage whilst performing, which will mark the end of his career as a dancer.

In 1927 the *Choreographisches Institut* moves to Berlin and the first congress of dance is organised. In the second congress in 1928 Laban presents his notation (see Chapter 6) and founds the Journal *Schrifttanz*. In 1929 Laban turns 50 and newspapers dedicate entire issues to him. He also organises a movement-choir with 10,000 pageants in Vienna, but despite his popularity he struggles economically with the Wall Street Crash of October 1929. In this period Laban resumes writing for films leaving his pupil Kurt Jooss to direct the Laban Central School in Essen.

The Institutionalisation of Dance and Laban's Collaboration with the National Socialist Regime: 1930-1937

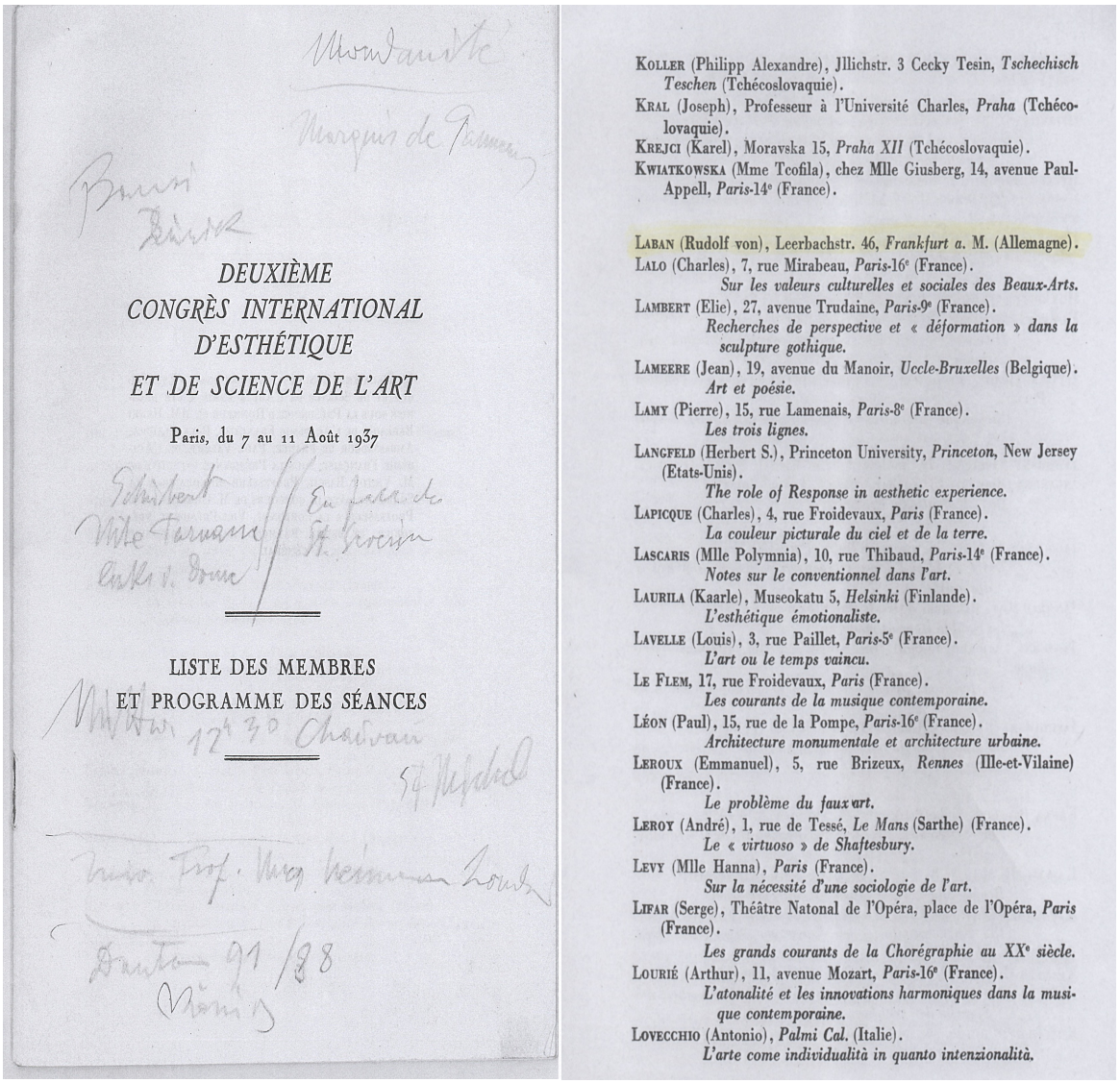
However, before his ideas for cinema and dance could take further shape, in 1930 he was appointed head of the *Berlin Staatsopera*. Laban was made famous by his Kinetography and by his 'movement-choirs', large groups of lay-dancers organised around choreographies written by him. What notation and movement-choirs allowed for, was to coordinate people in different geographical spaces moving in unison following the command of a master, something that, not surprisingly, brought him to the attention of the arising power of the National Socialist party.

In his first one-year appointment Laban attempts to direct a film with the dancers of the Opera and has a project for a film archive for the National Opera. This seems to be the last documented attempt by Laban to integrate film into his work. In this and the next year he directs *Bacchanale* in Bayreuth (with music director Toscanini) and gets appointed at the Opera for another three years. He applies for German citizenship, which will be granted to him in 1935. In 1932 Jooss's *Green Table* wins the international competition of dance in Paris and Prayer, with whom Laban had collaborated in the past for a film script, realises the film 'Rhythm and Art' with Yutta Klamt, who will become one of the undisputed stars of Nazi dance.

1933 is the year that will change the destiny of Europe. Hitler forms the Nazi cabinet and appoints Goebbels as Head of the Reich Chamber of Culture, part of the Ministry of Public Enlightenment and Propaganda. Subsequently to this, the destiny of dance in Germany follows a different path to that of any other art. After an initial period of indecision, where dance wasn't granted a separate place in the categories of the ministry,

and after the aid of some prominent figures such as Fritz Boehme, dance and the *Koerperkultur* movement were put at the service of the Nazi regime. Most of the exponents of avant-garde art, be these Bertold Brecht, Wassily Kandinsky, Arnold Schoenberg and even Laban's friend and collaborator Kurt Jooss escaped Germany. Laban, and a few of other notable artist, such as Mary Wigman and Oscar Schlemmer, decided to stay. This marked the beginning of his four years of collaboration with the Nazi regime.

On May 10 1933 the Nazis burnt books in front of the Berlin Staat Opera, where Laban was working. As one commentator mentions (Preston-Dunlop, 1998), he could not have avoided seeing this. In 1934 Laban was dismissed from service, but only to be given a much more prestigious role inside the National Socialist apparatus. He was appointed Director of Movement and Dance and during this and the next year, when he'll also became a naturalised German and published his autobiography, he organised several activities under the Nazi regime umbrella. In 1935 he started preparing for the Olympic opening ceremony. This entailed writing a score for a movement choir and sending it to different cities in Germany, where his pupils and collaborators would train lay dancers utilising the notation for the first time on such a large scale. At the last rehearsal, which Goebbels attended, Laban's piece was, however, surprisingly rejected, something that meant the end of Laban's career in Germany. Laban's schools were closed and Kinetography was banned. Laban had no other possibility than leaving Germany and, after a short stay in Paris in 1937, moving to England for a new life.



DEUXIÈME
CONGRÈS INTERNATIONAL
D'ESTHÉTIQUE
ET DE SCIENCE DE L'ART

Paris, du 7 au 11 Août 1937

LISTE DES MEMBRES
ET PROGRAMME DES SÉANCES

KOLLER (Philipp Alexandre), Jllichstr. 3 Cecky Tesin, *Tschechisch Teschen* (Tchécoslovaquie).
KRAL (Joseph), Professeur à l'Université Charles, *Praha* (Tchécoslovaquie).
KREJCI (Karel), Moravska 15, *Praha XII* (Tchécoslovaquie).
KWIATKOWSKA (Mme Tcofila), chez Mlle Giusberg, 14, avenue Paul-Appell, *Paris*-14e (France).

LABAN (Rudolf von), Leerbachstr. 46, *Frankfurt a.* M. (Allemagne).
LALO (Charles), 7, rue Mirabeau, *Paris*-16e (France).
Sur les valeurs culturelles et sociales des Beaux-Arts.
LAMBERT (Elie), 27, avenue Trudaine, *Paris*-9e (France).
Recherches de perspective et « déformation » dans la sculpture gothique.
LAMEERE (Jean), 19, avenue du Manoir, *Uccle-Bruxelles* (Belgique).
Art et poésie.
LAMY (Pierre), 15, rue Lamenais, *Paris*-8e (France).
Les trois lignes.
LANGFELD (Herbert S.), Princeton University, *Princeton*, New Jersey (Etats-Unis).
The role of Response in aesthetic experience.
LAPICQUE (Charles), 4, rue Froidevaux, *Paris* (France).
La couleur picturale du ciel et de la terre.
LASCARIS (Mlle Polymnia), 10, rue Thibaud, *Paris*-14e (France).
Notes sur le conventionnel dans l'art.
LAURILA (Kaarle), Museokatu 5, *Helsinki* (Finlande).
L'esthétique émotionaliste.
LAVELLE (Louis), 3, rue Paillet, *Paris*-5e (France).
L'art ou le temps vaincu.
LE FLEM, 17, rue Froidevaux, *Paris* (France).
Les courants de la musique contemporaine.
LÉON (Paul), 15, rue de la Pompe, *Paris*-16e (France).
Architecture monumentale et architecture urbaine.
LEROUX (Emmanuel), 5, rue Brizeux, *Rennes* (Ille-et-Vilaine) (France).
Le problème du faux art.
LEROY (André), 1, rue de Tessé, *Le Mans* (Sarthe) (France).
Le « virtuoso » de Shaftesbury.
LEVY (Mlle Hanna), *Paris* (France).
Sur la nécessité d'une sociologie de l'art.
LIFAR (Serge), Théâtre Natonal de l'Opéra, place de l'Opéra, *Paris* (France).
Les grands courants de la Chorégraphie au XXe siècle.
LOURIÉ (Arthur), 11, avenue Mozart, *Paris*-16e (France).
L'atonalité et les innovations harmoniques dans la musique contemporaine.
LOVECCHIO (Antonio), *Palmi Cal.* (Italie).
L'arte come individualità in quanto intenzionalità.

Fig. 3: Programme of the Second International Conference of Aesthetics and Science of Art, with Laban's notes. For source see Table of Figures pp.6-10.

In Paris, Laban took part in the Second International Conference of Aesthetics and Science of Art at the Sorbonne, where he gave a paper on dance notation in a panel dedicated solely to dance (see Chapter 5).

The English Years: 1938-1958

Invited to England by Jooss, Laban resumes his earlier interests and moved on towards the finalisation of his Choreutic theories and the development of his effort theories via a comparison with Taylor's 'Time and Motion' studies. Laban enters England at the age of 58 and dies in Surrey at 79. He spends over 20 years in the United Kingdom and has a great impact in the field of dance and theatre, education, therapy and ergonomics.

At the beginning Laban stayed at Dartington Hall as a guest of Leonard and Dorothy Elmhirsts. As Jooss and Lederer, his collaborators and friends, were interned under the war laws in 1939 at the beginning of WWII, Laban managed to successfully apply for UK residency. From a document found in the archive (n.d., L/E/50/19) we understand the issues that Laban was facing trying to regress to his Hungarian citizenship and opt out of his German one, which now, contrary to a few years back, could only be of great hindrance to him. In June 1940 Laban had applied to relinquish his double citizenship and was unable to travel without documents. He asks the British authorities to provide him with travelling papers and asks to be designated either as a Hungarian without passport or as presently without nationality, being formerly Hungarian. He also adds: "I should be very content, if my temporary double nationality need not to be mentioned" as "he was only German for one year" (n.d., L/E/50/19). Understandably, Laban had an interest in deleting the last chapter of his life, that period between 1933 and 1937, and, aided by his pupils and collaborators, he was successful in doing this, something that allowed him to continue working during and after WWII.

In 1939 Laban completed his monograph *Choreutics,* which will, however, not be published until 1966. In here he explores the laws of harmonic movement in relation to the Platonic Solids and his choreology (see Chapter 6). Laban is in London till the bombing starts, then, thanks to having been granted a travelling paper, he moves to Newtown in Wales with Lisa Ullmann, his pupil and partner during the English years.

In the early 1940s Sir William Slater, a chemist and agricultural administrator who was invited to join the Elmhirst in Dartington Hall, introduces Laban to the industrialist F.C. Lawrence. Lawrence recounts having met Laban in the early days of WWII in a document found in the NRCD archive (n.d., L/N/scrapbook 7, uncatalogued). The industrialist was struggling with training women in the factories and hired Laban for this purpose. Lawrence claims that Laban proved that lifting heavy weights was only a matter of using "natural levers and pendulums to swing" (*ibidem*) and that it could be, moreover, an enjoyable activity (see Fig.10, Chapter 4). Lawrence was impressed by Laban's knowledge of industry, considering he was a 'ballet master' and remembers one occasion, in which Laban was not permitted to enter in a factory because he was not English and so he sent a young helper to notate the actions of workers. Laban had these

re-enacted by Lisa Ulmann in front of him by way of the effort notation and was able, from a distance, to indicate how to better the movements and conditions of the workers.

Lawrence individuates Laban's method as that of 'objective observation'. This method allegedly allowed understanding people through the way they moved and helped with the recruitment of staff. In fact, Lawrence and Laban devised the 'Laban-Lawrence test', aimed at recruitment consultants. This entailed notating the effort phrases and shadow moves of the interviewee by way of effort graphs (see Chapter 6). "All this emanated", states Lawrence, "from Laban's theorem that the mind and the body are one and indivisible….accordingly, it is not necessary to probe the mind when the actions of the body (both functional and shadow moves) tell the whole story with such clarity" (*ibidem*). A key term here is that of 'shadow move': Laban and Lawrence were not looking at poses as in body-language approaches, but on the movement between poses.

Laban and Lawrence worked together for five years and in the meantime Ullmann and Laban moved to Manchester where they were teaching and lecturing on dance. Laban starts reorganising his personal archive, which will finally become the Laban Archive in the National Resource Centre for Dance (University of Surrey). In a document dated 1945 Laban states that he's been collecting material for 35 years. "A new branch of research", he claims, "that of movement notation, as applied in human industry, education, and theatrical and other arts was the natural outcome of the activity of the collector" (L/E/49/27). He adds that

> although the diagrammatical representations of movements have played an important role in industrial motion study, theatrical choreography and in physical training for many centuries, no coherent research in this field nor comprehensive collection of documents has been ever before undertaken (*ibidem*).

Laban and Ullman open the art of movement studio in Manchester in 1946 and they found the Laban Guild Movement Magazine. In 1947 *Effort* is published, marking the beginning of Laban's late writings. He keeps lecturing and being invited to speak about his educational methods in colleges in London and abroad. Laban's last publications come one after the other: *Modern Educational Dance* in 1948, *The Mastery of Movement*

on Stage in 1950 and *Principles of Dance and Movement Notation* in 1956. In 1953 Laban spends several months in hospital due to typhoid fever and he will die in Addlestone a few years after, in 1958. The final years of his life, however, are all but quiet in terms of artistic and intellectual production. In fact, besides the publication of his books mentioned above, Laban left a plethora of unfinished projects now held in the UK archives, where his investigations on rhythm and dynamic form are furthered.

Laban, the Philosophers' and Practitioners' Hell[8]

It could be argued that the reason for the neglect of Laban's work lies in his collaboration with the National Socialist regime. This vexed question in Laban's scholarship will be here investigated in the light of new evidence, which arose during the research process in the NRCD archive. As the evidence refers to Laban's notion of rhythm, this section is aimed at introducing the importance of the NRCD archive (see Chapter 3) and, at the same time, of the notion of rhythm, which will be the focus of Chapter 4.

Contrary to what appears on one of the two curricula mentioned in the previous section, it is not corroborated by historical evidence that "After Hitler rise to power Laban's teachings and influence were much reduced and finally eliminated in Germany and the Nazi occupied countries" (L/E/48/18a)[9]. The extent of the construction of history can be seen in the British press too. In a profile written in 1951 in the *Observer* (based on the curriculum mentioned above) we read that "when Hitler came to power he expelled Laban with the remark: 'In Germany there is room for only one movement – the National Socialist movement'" (Bown, 1951), and in his obituary of 1958 we read that "when Hitler came to power [Laban] was expelled from Germany and settled in Britain" (*The Manchester Guardian*, 2 July 1958, p.3).

In fact, the years between 1933 and 1936 were the years of Laban's glory: he was finally recognised as the leader of the discovery of free dance and the creation of the system of

[8] The title openly refers to an interview to Jacques Derrida entitled 'Heidegger, the Philosophers' Hell' ([1992] 1995).

[9] Interestingly, these CVs are to be found under the folder named 'Historical Data' in the NRCD archive. This highlights the degree to which both 'historical and 'data', which are normally considered to bare a certain 'factual objectivity', can, instead, be biased. This could also be seen as an indicator of an intention to re-write history from the part of the archive organiser, Laban's ex-pupil Lisa Ullmann (see Chapter 3).

notation that would bring dance to the same level as the other arts. Laban was appointed Director of movement and dance under the Nazi regime in those years and he took advantage of this moment to send his autobiography to print in 1935. His Kinetography and movement choirs never had such resonance before, nor will they afterwards.

This was the absolute peak of Laban's career, which should have culminated in Laban not only overseeing dance and movement-related activities for the 1936 Olympics, but being the choreographer of a movement-choir composed of 1,000 lay dancers to be performed at the Diederich Ekhart theatre. A few months earlier, Goebbels had inspected Laban's summer school and found that he was working well, which was equal to saying that he found his work in alignment with the National Socialist policies and practices. Laban was, then, really not expecting what would follow next. After the rehearsal, Goebbels wrote in his diary that the piece was 'too intellectual'. A raid by the Gestapo followed, and Laban was accused of being a Freemason and a homosexual, serious allegations in Nazi Germany.

He sent a letter in 1937 to Marie Luise Lieschke, his secretary, in which he declared to be "ashamed to be German" (Laban, in Karina and Kant, 2004, p.58). The letter, written in an evident moment of anger, shows that Laban was eager to know who set him up and why. He is naïve in relation to the 'System' (Third Reich) and wonders whether it might be because they connected his notation to his mystical inclinations. He is asking Lieschke to "uncover the crooks who are determined to get me and our cause by the throat" and he invites her to hand him "those who fight so dirty" (*ibidem*). Lieschke advised Laban to leave Germany, an advice that he followed. And in fact, after a short stay in Paris, Laban moved to England for the rest of his life[10]. This geographical dislocation also meant a dislocation from his past, as he arrived in Britain to construct a new life in which the 1933-1937 parenthesis was recounted rather differently. It is the re-emergence of documentation in the 1970s in Germany that brought to a wider appreciation of Laban's work and history. What had survived only in people's memories was now sedimented on paper.

[10] It seems likely that Goebbel's change of attitude reflected, on the one hand, the volubility of Nazi's policies and, on the other hand, it mirrored an increasing radicalisation of the latter (Guilbert, 2000).

It was possible, then, for biographers to start piecing things together both in the German- and in the English-speaking world. The publication in German in 1996 and in English in 2003 of Karina and Kant's *Hitler's Dancers* started a battle fought between Laban's scholars' works and clearly marked the division today still existing. They showed evidence of Laban's collaboration with the Nazi regime and they uncovered the extent to which Laban didn't want to leave Germany, but was made to.

Karina brings forward evidence that Laban dismissed non-Arian pupils from the Berlin Staat Opera already in 1933, and therefore six years ahead of the racial laws coming into force. As a reply to this allegation, Preston-Dunlop states in her biography of Laban published in 1998 that Laban was forced to dismiss both Aryan and non-Aryan pupils in 1933 because of the recession. Laban would then have reengaged a small number of talented young dancers for some of the works they were preparing, but none of these reengaged students was Jewish. "There is not a shred of evidence", concludes Preston-Dunlop, "that Laban gave preferential treatment to the children of party members" (1998, p.173). In support of Preston-Dunlop's position it should be noted that, as Hannah Arendt reports "Jews were second class citizens – to put it mildly – since 30th of January 1933" (1977, p.39) and that the Nazi regime excluded Jews from 'public service' such as schools and the entertainment industry and, therefore, also theatre and opera already in 1933 (Arendt, 1977, p.38). This would explain Laban's dismissal of his pupils in the same year. However this episode might be interpreted, Laban had ties with the regime, which went well beyond 1933. Although never a party member, Laban's career flourished when Hitler seized power and he was called upon to define German dance and German rhythm as part of the party propaganda, something that he did (see Chapter 4).

Goebbel's accusation of intellectualism is, contrary to what Kant argues based on Laban's *Die Welt des Taenzers*, well founded. Kant argues that Laban was anti-intellectual and that he was professing a body-centred approach. If this might be true in the years around 1920, it is clear that Laban was as much an intellectual as he was a practitioner and that he thought of the dancer as an individual to be acquainted with philosophy, psychology, anthropology and other fields of knowledge as also his early school prospectuses indicate. It is one of the aims of the thesis to bring evidence and arguments in favour of this. The fact that, in the 1920s he was focussed on a system of knowledge that would start from the body of the dancer, doesn't make him an anti-

intellectual, in that he was engaged in intellectual endeavours and was welcoming dancers to do the same. It seems that Kant's accusation is based on the dancer or practitioner equals anti-intellectual analogy. Although Laban was certainly critical of positivist approaches to movement, his endeavours were certainly analytical in his notation. Later on in his career, Laban was aiming at becoming a philosopher and a scientist of movement, certainly, a peculiar philosopher and scientist.

None of the considerations of Laban's work have explored whether Laban commented on this period and happenings. None of them investigated what he might have thought about what happened. In his recent book McCaw mentions that "there seem to be no public statements or writings by Laban himself that explain his decision [to remain in Germany]" (2011, p.344). Until now, there was no evidence either that Laban commented at all about this period of his life. The unique contribution of this project in this respect derives from research in the archive, which uncovered documents in which Laban is speaking about ethics and politics. The documents are all handwritten in German and for the most part found in the Philosophical Comments boxes. They show a Laban that is reticent to acknowledge mistakes or faults, but also one that condemns 'German Idealism', which in this context must be intended as National Socialism. This last critique, interestingly, is founded on the concept of rhythm, something that contributes to it being central to his philosophy and, one might add, his politics.

For Laban acting ethically is an artistic creation: the free person creates its own law, so that "every act is a choice, an independent decision" (Laban, n.d., L/E/25/60. My translation). Laban sees here ethical choice as a third alternative option to ethical systems based either on knowledge or on belief. This is not a compromise, he says, "there is no justification for being fatalist" (*ibidem*). This is an ethics based on insight. He maintains that

> the phantasy of the will shows us three options: what would be intelligent, what would be pleasant and what would be right. From these options we intertwine the more or less ethical resolution characterising our behaviour.

Normally, Laban argues, we follow either what is clever or what is pleasant, seldom what is good. "Duty is not coming from a recognition of a higher good", he proceeds,

> but from a recognition of the greatest evil, which is guilt. And guilt we invented ourselves. The unrestricted freedom of self-determination can be seen as the way (…) to overcome guilt (Laban, n.d., L/E/25/60. My translation).

What is not clear, in this one might say Nietzschean dismissal of the Christian notion of guilt, is how an ethics of responsibility might arise. Laban expresses his views on the relation of politics to rhythm in an excerpt written in German found in the archive in the 'Philosophical Comments' boxes. He states that:

> [we] could justify and excuse also the German Idealism, by way of looking at it as an indifferent natural phenomenon. Unfortunately, it is not. It has come into being not naturally, but artificially. It arose from the self-inflammation of weak souls, which found the *Takt*[11] and the rhythm of natural life too difficult. This impotence is a race error that brought this species to be put in isolation, in which the self-inflammation grew and grew into megalomania in a pathological way. The whole white race is more or less endangered by coming in contact [Einschuss] with German blood (Laban, n.d., L/E/25/12. My translation).

It is important to notice here the degree to which Laban evidently absorbed the National Socialist jargon, and presumably part of their ideology, such as that of soil and blood and racism discussed in Chapter 4. In this chapter will be discussed also Laban's relation to the Nazi propaganda, specifically in relation to a definition of 'German rhythm'. It seems that it is rhythm itself that differentiates between Laban's approach and that of the National Socialists, as they did not understand the alternation between qualitative and quantitative rhythm. Although it is not possible to expand on this issue in particular in this project, I discuss the way in which it bears potential for future research in a recent interview (Crespi, 2015) and in Chapter 7 of this thesis.

[11] *Takt* is the German word for 'measure' or 'meter' (see Chapter 4).

Derrida argues that a concern with defending or prosecuting in regard to Nazism has obscured a serious discussion and consideration of Nazism itself, "that enormous, plural, differentiated continent whose roots are still obscure" ([1992] 1995, p.182), digging deep into European cultural apparatus and institutions. In a similar guise, the battle between Laban's pupils having a tendency to excuse their master's collaboration with the Nazi regime and those condemning it has done much damage to a serious consideration of the relation of Laban's thought to Nazism, often relegated to footnotes or loose comments.

An exception to this is Carole Kew's article of 1999 'From Weimar Movement Choir to Nazi Community Dancing: the Rise and Fall of Rudolf Laban's 'Festkultur'' (Kew, 1999). Kew is successful in outlining Laban's and modern dance's debt to Nietzsche and his Apollinean and Dionisiac dichotomy. She also traces the heritage of Laban's movement choirs and identifies Monte Verita as the spring wherefrom this idea developed. She highlights its mystical features and counterpoises its volkisch character to that of a political stance. Besides utilising her hermeneutical approach, she also brings forward evidence of Laban's writings in which he laments the misuse made of movement choirs for political aims. Her exploration seems to corroborate Mosse's thesis, which sees how volkisch aspects of the Weimar Republic era have subsequently been taken up by Nazism. It seems true that Laban's philosophical approach was appealing to the Nazis, but in the end it is this philosophical approach that sat him apart.

One element of volkish tradition is necessarily rhythm. However, there were different ways to look at this phenomenon (see Chapter 4). After arriving in England, Laban spent the rest of his life working on rhythm. Considering his previous comments on Nazism, can this bear any political meaning? If rhythm sets him apart from Nazi politics, why is it so? In what way could Germany's 'weakest souls' have misunderstood the nature of rhythm, so much as too capitulate under its weight?

Chapter 4 will look at the question of rhythm in the Weimar period and at the beginning of the 1930s. A comparison between Laban's and Bode's takes on rhythm will highlight how Laban was already thinking of rhythm differently, that is, as a discrete continuum. In order to further the understanding of Laban's diagrammatics and rhythmology, it was

necessary to complement existing studies with further perusal of the NRCD archive, where most of Laban's late documents are held.

Chapter 3 - Methodology: Diagramming the Archive

> "Our writing [is] a well regulated dance of our hands, leaving traces on the surface of paper" (Laban, n.d., L/E/19/64).

In order to further the understanding of the relation of movement to structure in Laban's work in relation to rhythm and the 'moving forms' it was necessary to visit the NRCD archive. The project emerged and took shape from the documents held in the Laban Archive, part of the National Research Centre for Dance Archive in Surrey (UK). This methodological section will, therefore, expand on the archive and the archival research process and engage with current issues in archival practice.

The National Research Centre for Dance and the Laban Archive

Laban's papers, documents and artistic work is scattered throughout Europe and reflects Laban's continuous moves across countries. In the UK archives containing material related to Laban, besides the NRCD, are: Trinity Laban in London, Dartington Hall Trust in Dartington (Devon) and the John Hodgson Archive in Leeds. If Trinity Laban's peculiarity is that it hosts also material related to Laban's close collaborators, such as mathematician Sylvia Bodmer, and later development of Laban's theories, such as Merce Cunningam's, the Dartington Hall Trust archive focuses mainly on Laban's work with entrepreneur Lawrence, and the John Hodgson Archive holds Hodgson's private collection with early material by Laban and copies of the material held at the NRCD archive. Archives in Germany (Tanz-Archiv Leipzig and Koln) and France (Centre National de la Danse, Paris) are representative of Laban's earlier work comprised in the years between 1910 and 1937.

The present project is the result of research in the NRCD only. Although further research in the other archives would allow for greater precision and a rounder critical approach to Laban's work, it has been chosen to focus mainly on the archive hosted by the University of Surrey because it is the most comprehensive archive dedicated to Laban's work in the UK (around 4,600 files of paper, more than 1,000 drawings and other material among which videos, photographs and books that pertained to the author) and because it covers mainly the period comprised between 1938 and 1958, which is the period of interest of the thesis. Laban's unfinished projects and manuscripts, which

constitute part of the material explored in the thesis, are also contained in the NRCD archive. In fact, although Laban devised his Kinetography in the years comprised between 1915 and 1920, Laban's Choreutics and Eukinetics theories developed and took shape during his English period (1938-1958). Particular attention was given in the thesis to what Vera Maletic denounces as a narrow-minded approach to Laban's work derived from the language barrier found in English-speaking commentators. This project has, then, made use of both English and German (approx. 1,000) files in the NRCD Laban Archive with the aim of seeing Laban's work in process.

On the website of the archive we read that 'as Laban never dated his papers, it is difficult to know whether he brought the papers in German with him, or continued to write in German during his first years in England'. In fact, during this project's research documents were found in which Laban either writes in German, but utilises English words, or viceversa. It also happens that he starts in one language and then changes into the other. This points towards the possibility that the author was still writing in German when in England and that therefore German-written texts should be considered also potentially pertaining to his later production.

The Laban Archive in the NRCD, which attracted 300 visitors from 1999 until the present day, was donated by Lisa Ullmann, one of Laban's pupils and his partner in the last 20 years of his life, in 1988, 30 years after the death of the artist. Ullmann herself worked extensively on arranging the material theme-wise, a process that resulted in the current thematic taxonomy. Even though both AHRC and AHRB funding facilitated the digitalization of the index of material and the inclusion of part of the drawings and films on the Digital Dance Archive website, some artistic and textual material has as yet not been catalogued. Lack of funding is making it difficult for the archive to open itself up to a wider research community, something that is not helped by what Carol-Lynne Moore describes as an 'insularity' of the Laban community. It is one of the aims of the project to provide a point of access to both Laban and the NRCD archive.

"The Library is a Sphere whose circumference is inaccessible": Theorising the Archive

In his short story 'The Library of Babel' ([1941] 1999) Jorge Luis Borges elaborates on the theme of the archive, here seen as an infinite and incoherent library of libraries. The

image the author depicts is that of a labyrinth of knowledge, where disorder reigns and where "for every sensible line of straightforward statement, there are leagues of senseless cacophonies, verbal jumbles and incoherences" (Borges, [1941] 1999, p.10). In Borges's short story, the supposition that all knowledge may be contained in the books of the library and the discovery of a 'fundamental law', structural, of the library fuelled an euphoric reaction about the possibility of knowing the universe-library: "men felt themselves to be the masters of an intact and secret treasure" (p.15), states his narrating character. Subsequently, however, the understanding of the impossibility of accessing the all-encompassing-knowledge was met with frustration, since "the certitude that some shelf in some hexagon held precious books and that these precious books were inaccessible, seemed almost intolerable" (p.17). To the relativist claim that 'nonsense is normal in the Library', Borges' narrating character maintains the hope for a *clavis universalis*, a book of all books showing the ultimate truth contained by the 'illuminate, solitary, infinite and perfectly motionless' universe-library-god. Borges is here laying down the difficulties and pleasures of archival research: the researcher as devotee to god-knowledge, seeker of an ultimate truth and frustrated by the imperfect means that hinder her enterprise.

Similarly to Borges's library, archives, as encyclopedias, as collections of knowledge, have acquired increasing significance in current debates in the humanities and social sciences. Archives lie on the border of discipline-interests, they raise debates on the status of historico-political, economical, philosophical and, last but not least, methodological approaches. Archives fuel debates on presence, truth and ways of knowing and in their encountering the labour of the researcher, they highlight the degree to which they can bear a productive dimension. Conceived both as a 'paradigmatic entity as well as a concrete institution' (Featherstone, 2006, p.596), the NRCD archive can be approached generally as any other archive, in that it bears some general peculiarities common to all archives (such as being a collection of material arranged following an existing taxonomy), and in this sense it raises general concerns. At the same time, however, its concreteness uncovers it as a movement-archive, as a collection of traces of moving, pulsating flesh, be these the dancers' or Laban's, as most of the documents are handwritten.

In a document dated 1945 and written in Manchester (L/E/49/27), Laban explains in his own words the origin and aim of the Archives Laban. "The archives Laban", states the author,

> have started as a private collection of its founder Rudolf Laban and are the outcome of his endeavour to create a 'new branch of research' concerned with movement notation. Although the diagrammatical representation of movements have played an important role in industrial motion study, theatrical choreography and in physical training for many centuries, no coherent research in this field nor comprehensive collections of documents has been ever before undertaken (*ibidem*).

With this in mind, we can say that the archive is a collection showing the work of Laban on one theme: movement and notation. In describing the content of the archive, Laban leaves his written notes last, after having mentioned diagrams, drawings, models and pictures, something that could seem to reflect a hierarchy given from the part of the author in terms of his practice of research and methodology.

One may look at Laban's founding of an archive as a further attempt to fight the volatile nature of practice and, in particular, to imprison the moving nature of his subject of research: Laban the master of the institutionalisation of movement. However, by preserving his drafts and handwritten notes and drawings, he allowed for further researchers to reactivate the flux of his thought and practice. Rather than having it put at rest, so to say, by his death, Laban hoped that research on movement would continue. In fact, as with archives in general, documents release their representational aspect in the moment in which they become part of the performing of research. In order to argue this further, the following section will first engage with the archive in general and then with the concrete research process and methodological approach to the NRCD archive.

Much of current debates in documentation or archivisation tend to look at text and notation as opposed to movement, and working with this archive raised the question of the status of my project. Was my thesis going to add textual and iconic analysis on the documentation of something irremediably lost, such as Laban's life and work, his

breathing essence, the 'liveness' of flux? By looking at the material, be this handwritten, or drawn, however, I started questioning this consideration: there was something very 'alive' about the movements inscribed in the papers I analysed, one can nearly say that the movement of his thought and of his hand was 'present'. One can also say that by giving voice to the silent material rarely scrutinised of the archive, I was reanimating it, setting it in motion again. In fact, these considerations pointed towards a dialogue between movement and form and a dissolution, to some extent, of this antinomy. What's more, the writing of the thesis itself constitutes my personal process of making sense, my own movement of thought: at the borders of the page, in between lines, through the moving finger aiding reading and the turning of the pages.

In the exchange between published and unpublished material, I start realising that what lays in the archive is the process of thought and trial that gave rise to the more established theory. In this regard, it should be mentioned that there's little of Laban's theoretical apparatus that reached a 'definite' shape. It is mostly Laban's pupils that developed and preserved Laban's intuitions and ideas.

Re-writing History

In his 'Archive Fever' (1995), one of the main points of reference in literature concerned with the archive, Jacques Derrida addresses archives as sites of power exertion. By stating that "there is no political power without control of the archive, if not of memory" (Derrida, 1995, p.4), Derrida draws attention to the "power…of the state over the historian" (Combe, quoted in Derrida, 1995, p.4). What Derrida suggests is that archives are not given 'concepts', but malleable 'notions': "To the rigor of the concept, I am opposing here the vagueness or the open imprecision, the relative indetermination of […] a notion. 'Archive'", Derrida proceeds to argue, "is only a notion, an impression" (Derrida, 1995, p.29). Deprived of the firmness of 'facts', archival documents become from this perspective silent witnesses of violence, 'traces' of an elusive presence. Following Derrida's considerations, methodologies of archival research have developed towards a general approach to archive's documents as something that needs to be critically look at from the point of view of the conditions of their institutionalisation. In this sense, the focus is on the writing and rewriting of history and historical data.

Derrida also analyses the archive following Freud's psychoanalytic theory and reads it in

relation to the latter's concepts of the death drive and pleasure principle seeing it as the mediation of these two forces. Derrida claims that the compulsion to record, to reproduce, to repeat, which allegedly expresses Freud's pleasure principle and characterises the urge to archivisation, is inextricably connected to forgetfulness and destruction, since "the repetition compulsion, remains, according to Freud, indissociable from the death drive" (Derrida, 1995, p.12). As explained by Manoff, the dynamic between preservation and annihilation is evident in cases such as that of the destruction of archives during wars and the heated debates surrounding the "disposing of material that should have been preserved for present and future generations" (Manoff, 2010, p.12), generating what Mike Featherstone exposes as a 'conflict between storing and access' (2006, p.594) described as 'the view that the archive should be as exhaustive as possible and should collect and house as wide a range of significant documents, which clashes with the view that archives should be more open to the public' (*ibidem*).

The institutional conditions come to the fore in the case of Laban's archives. Lilian Karina brought to attention through her archival research on Laban how archival evidence on the thinker may have been subject to what Derrida sees as the workings of a re-shaping of history operated by archivisation which "produces as much as it records the event" (Derrida, 1995, p.17). Karina's discovery, in the Tanz-Archiv Leipzig, of what she argues being an 'incriminating' (Karina and Kant, 2003, p.16) letter related to Laban's dismissal of Jewish pupils from his school in 1933 and accompanied by a note saying "removed from a folder where it had been misfiled" (*ibidem*) can be seen as 'significant error' on the part of the institution, as she argues (although see Chapter 2). "My experience has been that such damaging evidence has been frequently removed from personal files", she claims, "They are", she continues, "no longer available although archive registers and indices continue to list them" (*ibidem*). Also in the case of the NRCD archive we should note, as mentioned above, that Lisa Ullmann personally organised and sorted the material in the years between Laban's death in 1958 and the delivery of it to the NRCD in 1988, and it is therefore to be taken into account that her own perspective on Laban's work has influenced her archival choices shown, for example, in the way in which she sorted the documents in thematic areas. Also, sometimes texts handwritten by Laban contain side-notes written with a different handwriting, suggesting that Laban and Ullmann were, at least to a certain degree, working together in writing some of the later texts.

Moreover, documents relating to Laban's ethico-political stances were found during the research for this project in the 'Philosophical comments' boxes, for the vast majority always handwritten in German. This is at odds with the fact that Laban wrote predominantly in English between 1938 and 1958 and it raises doubts on whether other important evidence in English might have been misplaced. In particular, at the end of a small essay on unrelated topics, the beginning of a text entitled 'The myth of the white race', in English, raised suspicion as to the potential of contamination of the archive: if little can be inferred from this first page of a longer document and its title (although sounding sinister if put in relation with Laban's political past), similarly to the case of Karina mentioned above, the feeling that it was misfiled and that only a distraction allowed it to be there was quite marked. In the case of Laban's curricula mentioned in Chapter 2, the workings of a re-writing of history are evident. A search in the catalogue of the British newspaper *The Observer* also highlighted the degree to which these documents influenced the general public opinion[12]. Although it is not possible to assess the degree of 'contamination' that the sources in the archive have been exposed to, cross-referencing archival documents with other evidence inside and outside the archive aimed at minimising the impact of external influences on the material.

Steedman, referring to Derrida's reading of the archive in relation to Freud's death drive, describes the researcher's 'feverish' labour exercised in uncovering 'facts' intended as ultimate 'truths' (be these historical, epistemological, existential, and so on) as a "feverish desire -a kind of sickness unto death- (…) the fever not so much to enter it and use it as to *have* it" (2001, p.2. Italics in the original). This drive, which Bradley refers to as 'the seduction of the archive' (Bradley, 1999), rather than uncovering truths, reshapes them altogether, so that, as she puts it, "in that endeavour of writing history we also inevitably rewrite history, that is, re-create the past in new forms" (p.109). Archives must be seen, then, in continuous process of construction and molding through its constituent forces, and the active engagement of the researcher as itself a meaning-making process that alters the constitution of the archive itself, re-writing it. Otherwise put, as Featherstone acknowledges, "archive researchers engage with the activity of archiving the already archived" (Featherstone and Gale, 2011, p.18) by identifying, negotiating and creating anew its strata of knowledge. Taking seriously the above

[12] An in-depth analysis of the way in which Laban and his work were received in England from 1938 onwards with a particular focus on Laban's relationship with the National Socialist regime would divert from the main topic of the thesis. However, such a study could start with the evidence here proposed.

considerations on the performative aspect of archival research, the present project engaged with the creation of a new mapping of the material, which has been shaped during the research process exposed below.

Diagramming the Archive: Movement-Structure-Movement

> "We write MOVEMENT and do not WRITE movement" (Laban, n.d., L/E/21/1. Capital letters in the original).

The research process in the archive underwent different stages. At an initial stage, the online catalogue was perused with the aim of exploring the existing taxonomy, the type and amount of material and ways to search for documents by using keywords in order to 'unlock' possible threads to follow. In line with what is stated on the archive website, this initial research found that there was an overlapping of documents in respect to thematic areas, that different copies of the same document at different stages of re-drafting were not kept under the same heading and that hundreds of drawings were filed with the papers, although there was also a separate drawing collection, making it difficult to understand which drawings were originally coupled with written text and which ones were not. Moreover, most of the documents' titles didn't reflect the actual content of the file, either because the title was taken from the first line of the document, or because of Laban's writing style. He could start a document a document addressing one argument and, following his line of thoughts or maybe the writing hand, continue on another topic, so that the title of the document is no warranty of the topic dealt with in it. These initial difficulties pointed towards the impossibility of relying on the existing thematic structure and the necessity of devising my own map of the archive.

Akin to a tool, the archive's taxonomy or classification system provides access to the material and at the same time shapes and guides the research process itself. "Many of the classification systems in use in archives", points out Featherstone,

> derive from the cataloguing systems that emerged with the development of the library in the 19th century. These are systems, which favour disciplinary classifications and taxonomies (…) that emerged in early modern times and became refined in the 18th century European Enlightenment, which had a preference for binary divisions and branching tree structures (2006, p.594).

The same may be said about the NRCD Laban Archive taxonomy devised by Ullman. In order to proceed with the present research it was necessary to set the archive into motion by overcoming its thematic divisions and re-arranging the material following the project's line of enquiry. Rather than following a pre-existing structure according to which the material should have been ordered, this process resembled a dialogue between the practice of research and the archive material.

Art in General Art of Movement Articles about Laban Assessments, Reports, Records Biographical Information Books, Manuscripts, Outlines Choreography Choreology (Effort) Choreology (Space) Choreology in General Choreutics Contracts Dance in General Education Eukinetics Family Correspondence Harmony Historical Data Industrial Rhythm Information from Others	Investigation into Movement Responses Lecture Notes on Various Subjects Letters Man, Matter and Motion Miscellaneous Notes Movement in General Movement Notation Observation Personal Statements Philosophical Comments (BOXES 23-26) Photostat and Newspaper Cuttings Physiological - Scientific Production Scripts Psychological Implications Rhythm (BOX 40) Rudolf Laban's Pupils Stories, Poems, Drama, Music Therapy Uncatalogued Scrapbooks

Fig. 4: Current taxonomy of Rudolf Laban's papers (L/E/) in the NRCD archive created by Lisa Ullmann.

In order to proceed, in a second stage of the project, the archive in the basement of the NRCD (otherwise not accessible to the public) was visited so as to get an idea of its physical proportions and the quality of the material.

As documents in the archive were not dated, apart from a very small minority, an attempt was made to locate them chronologically by looking at Laban's use of language, that is, how good his English was and whether he still needed to write in German. This method proved inefficient, however, because Laban was sometimes writing in both German and English and because some German texts are also typewritten, a sign that they are to be thought of as among his latest production. It was found that, in line with Maletic (1987), Laban's early interests, such as that of notation and rhythm were

pursued also in the last decades of his life and highlight therefore a continuum in his work. However, as shown in Chapter 6, Laban's attitudes towards these themes changed.

A first survey of the material focused on the drawing boxes, which contained mixed drawing material and exemplified the extent to which Laban never abandoned his early interest in drawing, something that derived from his early training in the Ecole de Beaux Arts in Paris. What this material also showed, however, was Laban's understanding of the relation between body, space and geometry beyond his working out of his notation and started shaping the focus of the project away from Laban's main notational systems (Kinetography, Eukinetics and Choreutics) and more towards a wider range of pictorial inscriptions, diagrams and maps. In this sense the archive allowed for an intense encounter with Laban's work, an underlying substratum from which the more known system arose.

Once found a frame of reference in the author's interest in drawing as method, as explored by Moore in her monograph (2009), a search was initiated aimed at locating possible examples of what was provisionally called 'Laban's diagrammatic thinking'. As most of the visual material used in this project was artificially separated from the written material, part of the labour with the documents focused on linking the two together. Rather than seeking to re-assemble the 'original' ordered composition, however, what was looked for was a set of relations between images/diagrams and text that would help shaping the thesis. It was at this stage that it became clear that documents were mostly hand-written in pencil on copy paper and that the first task was to decipher Laban's handwriting in order to be able to access the content of the majority of the files. It is interesting to note, in this regard, that the material that researchers mostly decided to look at, in this archive, was either drawings, or typewritten sources, the latter being the most recent chronologically. The present project has been informed, instead, by Laban's handwritten notes and in this sense a pivotal skill to develop was that of being able to follow Laban's handwriting, the very trace of his hand.

In a way, the research practice focused on learning to dance with Laban's thoughts on the border of the nearly transparent sheet of paper. In between Laban's handwritten notes often pictorial inscriptions, or, rather, diagrams were present. It is also this material that informed the thesis and opened up a space for an understanding of Laban's

diagrammatics. The more the material was inspected, also on a random-like way, the rounder an outline of Laban arose. The handwritten documents depicted a Laban somehow different, more intimate and various than the one encountered in his published works. Generally described as a mysterious genius, whose original thinking revolutioned the art of dance, Laban came through as well-acquainted in his references to leading intellectuals and as prone to think about ethics and politics. Laban's interests, artificially confined by the thematic areas of the subdivision of the documents, went beyond dance and focused more generally on movement. Moreover, Laban seemed to be interested and acquainted with ergonomics, philosophy, psychology, mathematics and topology. Rather than a specialist in any of these, however, his notes showed how he was attempting to grasp the fundamentals of the above disciplines and his plans for future integration of them in relation to his art, philosophy and science of movement. Laban's methodology in this sense entailed returning over and over on the thematic areas of his work, sometimes modifying several times the same draft, as if ideas could originate from the repetition itself. This multiple drafting is also due to his tendency to loose himself in the ocean of words and re-emerge in a place other, something that jeopardises every attempt to contenxtualise the documents from the title or first line, as mentioned above.

As research in the archive progressed, the focus of the project shifted from its initially stated aim, that is, an analysis of Laban's practice through his notational/diagrammatic systems and had to take into account that Laban was not only a practitioner, but that, as it emerged from the documents of the archive, he himself had a practice-inspired theory of movement for which he saw application in several fields of knowledge. Laban seemed, in fact, to be not only concerned with practical aspects of movement, but also with the theoretical insights produced by his practice. These, in turn, fed back into his practical endeavors. The main research question was then re-shaped towards an exploration of Laban's own theory and practice of diagrammatics. The methodological question arising from this problem, was how to approach Laban as a researcher. It proved fruitful to proceed precisely by 'moving' with him through his writing and diagrams: Laban's handwriting and his diagrams mediated, in the present project, between researcher and 'object' of research, and it is in this sense that this work wants to be seen as a first step towards the implementation of a diagrammatic methodology. Not an exploration of the specificities of Laban's analysis of bodily movement (Moore, 2009), nor a development of Maletic's useful genealogy of his key (1987) what the

project naturally developed into was an exploration of Laban's concept of rhythm and his diagrammatics.

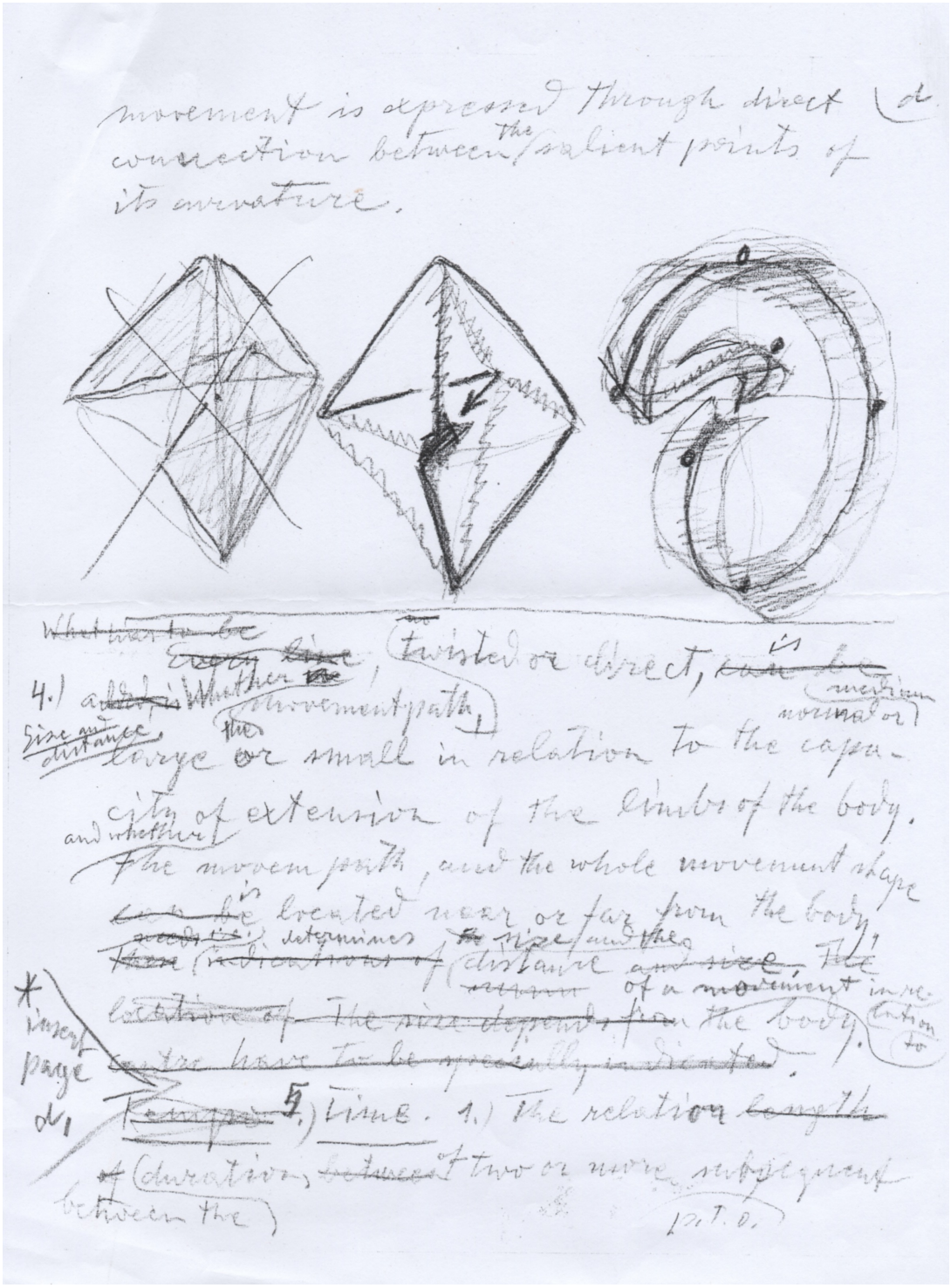


Fig. 5: Example of file handwritten in pencil with diagrams and corrections. For source see Table of Figures pp.6-10.

Contrary to Moore's artistic contextualisation of Laban's methodology, however, archival research seemed to point towards the utility of a philosophical placing of Laban's work. The research question was then re-formulated as such: what insights may Laban's diagrammatic philosophy of practice develop in regards to other more theoretical approaches to diagrammatics? In other words: had Laban something to say about diagrams, their definition and their implementation and, if so, what was it? It started to be necessary to have a deeper insight into Laban's theoretical approach to his practice, or, rather, Laban's practice-inspired theory of the diagram. The four 'Philosophical Comments' boxes held by the archive were chosen as main material to focus on. Rather than constituting a restriction to my exploration of the rest of the material, these boxes provided me with a 'springboard' to explore the archive.

Art in General	Investigation into Movement Responses
Art of Movement	**Lecture Notes on Various Subjects Letters**
Articles about Laban	Man, Matter and Motion
Assessments, Reports, Records	Miscellaneous Notes
Biographical Information	Movement in General
Books, Manuscripts, Outlines	Movement Notation
Choreography	Observation
Choreology (Effort)	**Personal Statements**
Choreology (Space)	**Philosophical Comments (BOXES 23-26)**
Choreology in General	Photostat and Newspaper Cuttings
Choreutics	Physiological - Scientific
Contracts	Production Scripts
Dance in General	Psychological Implications
Education	**Rhythm (BOX 40)**
Eukinetics	Rudolf Laban's Pupils
Family Correspondence	**Stories, Poems, Drama, Music**
Harmony	Therapy
Historical Data	
Industrial Rhythm	**Uncatalogued Scrapbooks**
Information from Others	

Fig. 6: Current taxonomy – Sections highlighted in bold containing documents used in this study.

Laban's philosophical considerations showed the many ways in which he thought of rhythm as central to his practice, something that allowed for his ontology to be called rhythmic (see Chapter 4). This was in line with Laban's development of his Eukinetics theory and his work in the English factories with Lawrence after WWII. The documents in the archive, though, showed that, far from being a well-defined concept, rhythm maintained for Laban an ambivalence, which he was attempting to explore via a

diagrammatic methodology through his effort graphs and Choreutics. This demanded a re-elaboration of the main theme of the thesis, which moved towards a consideration of Laban's concept of rhythm in relation to his diagrammatics. My own mapping of the NRCD, therefore, took these two aspects (diagram, rhythm), together with those of 'politics/ethics', 'religion/spirituality', 'movement in general' and 'life/work' as potentials for a re-arrangement of the material. This gave birth to the meaning-making process, which resulted in the present work, and to a diagram of the NRCD archive (Fig. 7). In the diagram (see also Chapter 5) the journey of the archival documents (middle level), from their present classification (top level) to a new one serving the purposes of the PhD research (bottom level) is visible and presents itself as a snapshot of a process of research.



Fig. 7: Crespi, P. (2015) Diagramming the Archive.

In the act of manually tracing the paths of my personal journey through the archive I reached an understanding of how my own classification differs from the present one. Many of the files, which I grouped under Laban's personal life, were found for example in a scrapbook, with material uncatalogued. These files were for the most part, although not all, in German and were meant to form an edited collection curated by one of Laban's niece, Laura Laban, but that never took definite shape and was never published. The reason why the material is uncatalogued, is unknown. Among these documents, the contribution of Mary Wigman was published in the Laban Guild journal, but the rest has remained in the box. From the existent category 'rhythm', only five documents were corresponding with my category of 'rhythm', and instead the other files were contained in the 'philosophical boxes' and in the 'Choreology' boxes. The 'Choreology' files, which are at present subgrouped into the useful categories of 'choreology-effort' and 'choreology-space', and the less useful category of 'choreology general', fed into my Rhythm and Diagrammatics folders. General considerations about movement and dance were also found in the philosophical boxes, suggesting that the current boxes under the name of 'dance in general' do not contain all dance-related files. Critically, in the philosophical boxes I found many files in German that refer to Laban's political, ethical and religious stances, something that allowed me to create a separate folder in my own re-ordering of the archive.

The present classification is the result of the unique labour of the present project and it is restricted in this sense. In an attempt, however, to produce an "image of the possibilities of the material" (Featherstone, 2006, p.593) by relating drawings and documents across the existing taxonomy and by creating a new mapping, this project provided, more than an 'image' a 'diagram' of the possibilities of the NRCD Laban Archive. What is also highlighted is the processual and embodied character of the archival research for this project, which was aided by the mediation of diagramming.

Chapter 4 - *Takt* and Rhythm in Laban's Project of a Rhythmology

> "I am not wondering when something disappears, I am wondering when it is still here, when it keeps its shape amidst the general fluctuation" (Laban, n.d., L/E/23/26).

In *Empire of Ecstasy* theatre scholar Karl Toepfer discusses the salient exponents of German modernist body culture. Rudolph Laban is here portrayed as "neither a great artist, nor a great theorist" (Toepfer, 1997, p.99) with an "antiempirical attitude" (*Ibidem*, p.101) and an "exasperatingly vague" way of expressing himself in writing (*Ibidem*, p.103). Furthermore, allegedly Laban "said nothing insightful about the relation between bodily rhythm and musical rhythm" and the only reason why he proposed that dance should become independent from music is a lack of understanding of the latter's relation to emotions (*Ibidem*). Carol-Lynne Moore's monograph dedicated to the relation, in Laban's work, between bodily movement and music may be enough to testify for Laban's in-depth engagement with music, dance and emotional dynamics (Moore, 2009). Moreover, Toepfer's description of Laban as being overly indulgent in mysticism and lacking any rigour in his enterprise may serve his main thesis, but it is limited at best. The same author admits that Laban created "the most successful method of recording dances", and this "despite its arcaneness and typically Labanesque obscurities" (Toepfer, 1997, p.105). Indeed, Labanotation was a milestone in the development of dance as an art during the beginning of the 20th century and it is still the most widely used system of notation in the whole world. Laban's methodology may not conform with the 'empirical method', but it may be that, in order to grasp the peculiarities of bodily movement, another method is needed, i.e. a diagrammatic one. What Toepfer describes as Laban's ambivalence towards dance and the body, i.e. "he saw that creating a higher value for dance depended on treating it as a huge, abstract system that functioned independently of dances and even bodies" (Toepfer, p.107), can be traced back to the ambivalence in the nature of Modernism as such: in Germany in particular, Koerperkultur and a tendency towards abstraction coexisted.

Discourses knotted around the notion of rhythm in Germany, where Laban was operating, in the 1920s and 1930s will be exposed in the first part of the chapter. This, rather than being an historical contextualisation, aims to be an exposition of the 'relation of forces' surrounding rhythm in Modernity in Germany. This 'genealogy' of the notion

of rhythm explores Laban's approach to rhythm and sees it in connection to discourses on the body, on movement and on vitalist philosophies. The second part of the chapter will focus on Laban's concept of rhythm as defined in the early 1920s and in the 1950s by counterpoising it with that of his contemporary and adversary Rudolf Bode

Movement and Representation: Nietzsche and Bergson

Great influences on the modernist avantguarde, both Nietzsche and Bergson have had an impact on Laban's work as well. Of Nietzsche Laban wrote a small essay in German (L/E/26/12) and a piece of poetry (L/E/26/7), also in German, presumably both written before Laban's arrival in England. Nietzsche is in Laban's words 'a creator of lawless law, a destructor of the Beyond, the inventor of the eternal return of moment (…) a liberator of love (…) a dancing star'; moreover, Laban individuates 'the proclamation of the dancing being as the fundamental intention of Nietzsche's work'. In fact, Nietzsche was taken as an inspiratory, among others, by Isadora Duncan and in general, thanks to his focus on the body and *Das Wendende,* Nietzsche was the prophet of dance in Modernism. Accordingly with Laban's take on the philosopher, a Nietzsche commentator from the lines of the influential journal *Der Sturm* in 1911:

> All being is 'illusion'; all 'becoming' is 'reality' and is only reality in so far as it is movement (Zerbst, 1911, p.612. My translation).

To defend this claim, in the first section of three of an article entitled 'Movement: Foundations of a New Vision of the World', Dr. Max Zerbst exposes the shortcomings of a substance-related theory of physics and highlights the way in which also the atom seems, in ultimate analysis, to be described by 'movement qualities' such as 'the forces of attraction and repulsion', which ultimately act as 'primae causae' (Zerbst 1911, 612. My translation). The new vision of the world brings about an uncompromising assault to the "tyranny of 'Being'" (Zerbst, 1911, p.613. My translation) in the name of movement:

> It is obvious that our world of sensations and representations is nothing else but a system of movement (Bewegungsystem), a combination of moving forms and moving relations closely or loosely connected to other combinations and types of movements (…), from which derives the reality of perception and cognition as a whole. The fundamental division between

> ‘mind’ and ‘body’ becomes then automatically obsolete; both are just states of movement and both go back to the same primordial fact [Urtatsache]: Movement. (Zerbst, 1911, p.629. My translation).

The task of the science ‘of the future’ would then be

> to dissolve all ‘substance’ completely into ‘movement’ in order to allow us to understand that underneath all appearance of ‘being’ the truth is ‘becoming’ (Zerbst, 1911, p.630. My translation).

Zerbst is not afraid of bringing transience into the metaphysical realm, anticipating in this way most of later philosophical debates. If until now all powerful core values of western society were based on the belief in substance, unity, god, freedom of the will, eternity and space, Zerbst affirms that the

> new big movement turn will result in the most tremendous revolution which ever took place in the intellectual life of mankind (Zerbst, 1911, p.631. My translation).

Modernity’s stress on movement and flow has also been traced back to the work of Henri Bergson. Laban’s work seems to have been influenced by the philosophy of Henri Bergson, something that has been noticed by other commentators (Moore, 2009; McCaw, 2011; Salazar-Sutil, 2012). However, Laban’s mentioning of an ‘*élan* or impetus’ in relation to rhythm in Fig.8 below is the most direct reference to the French philosopher.

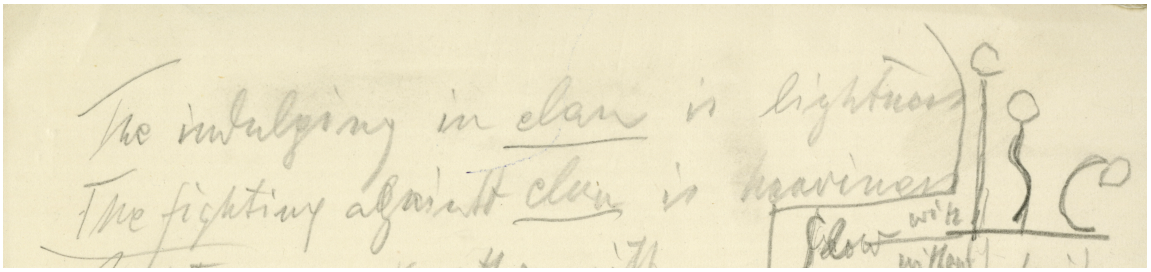


Fig. 8: Élan vital and Effort. For source see Table of Figures pp.6-10.

This reference concerns Bergson's concept of vital force in relation to rhythmic emanations (indulging and fighting pertain to Laban's effort theory explored in Chapter 6), points towards a clarification of Laban's concept of effort and its relation to rhythm as a practical exploration of Bergson's philosophy.

Koerperkultur and Somatic Practices

In the first quarter of the 20th century a plethora of different performing-related schools of thought arose, all linked by the idea of returning to nature. (Carter and Fensham, 2011). The 'back to nature' movement was linked to a variety of practices and in Germany to groups such as the *Wandervogel* and *Koerperkultur*. *Koerperkultur* in Germany at the beginning of the 20th century was a vast and heterogeneous phenomenon. Described as "a central concept of the consciousness of Modernity" (Wedemeyer-Kolwe, 2004, p.13. My translation), *Koerperkultur* is a term, which brings together under its umbrella different practices. In the Koerperkultur journal of 1909 the movement is described as comprising

> the most diverse attempts, made by singular individuals and whole groups of people (together), to introduce new and unconventional conditions in their whole lifestyle, attire, alimentation, etc, because they feel they cannot tolerate the old way any longer (*Ibidem*).

Koerperkultur was also seen as a way to reform life and society in general and give birth to a 'higher Mensch', whose hallmarks are "the unity of body, mind and spirit" and whose 'duty' is to consider her own body as a 'sacred temple' (Wedemeyer-Kolwe, 2004, p.13). As explained by a scholar in the so-called somatic practices field,

> [t]he shift form perceiving the body as a mechanistic vehicle for the mind, to perceiving a 'unified mind-body organism' has implications for, and effects changes, in many other related areas (Mangione, 1993, p.2).

Practitioner Thomas Hanna has recently subsumed a vast array of techniques that mostly arose at the turn of the 20th century in Europe and the USA, as 'somatic practices' (Hanna, 1986). As shown by Martha Eddy in her article 'Brief history of somatic practices and dance', somatic practices were born worldwide but predominantly in

Germany from the 1880s onwards and featured exponents of the modern dance movement such as Rudolph Laban, Mary Wigman, Isadora Duncan and their masters and inspirers such as Francois Delsarte, Emile Jaques-Dalcroze and Rudolph Steiner (Eddy 2009, 10). Considering their focus on movement, the body, proprioception and the rhythm of breathing, these practices can be said to inscribe themselves into the abovementioned 'body culture' movement.

Scientific Management, Photography and the Moving Image

Taylorism was embraced in Europe around 1910. The connection between Scientific Management, discoveries in physiology by Jules Marey, the work of Edward Muybridge on photography and the first steps of cinema is well documented (Mandel, 1989; McCarren, 2003; Rabinbach, 1992). Scientific Management aimed at maximising time and effort expenditure for the factory worker. In order to accomplish this, careful studies of the workers' movements were necessary. The focus of Taylorism was on the body, intended as a machine. As eloquently explained by Rabinbach in his seminal text *Human Motor* (1992), the equation of body and machine was aided by the concept of *Kraft* (energy), which arose in the second half of the nineteenth century. Following scientific discoveries, energy began to be considered to be omnipresent in matter, so that Gaston Bachelard called this scientific paradigm 'dematerialised materialism'. "The discovery of energy as the quintessential element of all experience, both organic and inorganic", points out Rabinbach,

> made society and nature virtually indistinguishable. Society was assimilated to an image of nature powered by protean energy, perpetually renewed, indestructible, and infinitely malleable. The pioneers of energy conservation viewed the transformation of mechanical energy into heat, and subsequently, the transformation of all natural forces as manifestations of a single Kraft (Rabinbach, 1992, p.46).

Kraft was thought, moreover, to pulsate rhythmically as testified by writings of authors such as Ernst Haeckel, von Helmholtz and Herbert Spencer (Schall, 1989, pp.80-84).

The discovery of Kraft and its laws was to be quickly coupled with the subsequent discovery of the second law of thermodynamics. In the realm of physics, this meant that

what von Helmholtz baptised as 'labour power', was not perpetually maintainable in a system, but was subject to entropy, dissipation. The consequence in the human realm was that the human body could not be considered as a perpetual machine: a science of work was needed to fight the effects of fatigue threatening the fundaments of industrial production.

'Time and Motion' studies were in some cases aided by the nascent photographic technology. More precisely, the development of both went hand in hand, as testified by Frank and Lilian Gilbreth's case. The Gilbreths conceived the stereo chronocyclegraph, "a 3-D photograph that traced the path of human motion in pulses of electric light" (Mandel, 1989, p.9). Contrary to Frederick Taylor's stopwatch and emphasis and speed, the Gilbreths gave importance to the worker's 'right to happiness' designing a method that would focus not only on speed but on the best way of moving.

Rhythm: Movement and Form

> "Rhythm seems to be a language apart, and the rhythmical language conveys meaning without words" (Laban, 1950, p.82).

Rhythm, normally defined as "a strong, regular repeated pattern of movement or sound" (OED), was of importance well beyond the artistic realm, not only, but maybe especially in Modernity (Lubkoll, 2002). Indeed, it is claimed to have been "the key to a new world view" (Schall, 1989 p.15) in Germany at the turn of the 20th century. If in the art world Wassily Kandinsky, Oskar Schlemmer, Paul Klee, and others theorised rhythm in connection to their practices (Schall, 1989), the aim of this section is to show how rhythm was central also to sociological, scientific and psychological investigations in its connection with a renewed interest, in Modernity, in the corporeal and kinaesthetic.

Defined as 'anthropological phenomenon' (Lubkoll, 2002, p.83), 'incubator' (Golston, 1996), and the 'minimum common denominator of phenomena apparently contradictory, opposed, conflicting' (Cowan, M. and Guido, L., 2010, p.21. My translation), rhythm eludes straightforward explanations. What characterises rhythm, it seems, is an inherent ambiguity, something that commentators Christine Lubkoll, Michael Cowan, Dee Reynolds and Janet Schall drew attention to in relation to the reception of rhythm in Modernity. Also present in the Romantic philosophy of Friedrich Shelling and re-

introduced in Germany by Friedrich Nietzsche, rhythm and its theorisation did not acquire a univocal meaning, rather both its Apollonean and Dionysian aspects came to the fore. That is, rhythm was understood to be synonymous with both 'order' 'chaos', 'harmony', and 'disharmony'.

Rhythm's ambivalence stems from its conveying meaning of both unrestricted 'flow' and 'form'. In a seminal text, linguist and semiotician Emile Benveniste analyses the etymology of the word 'rhythm' in the Greek language, asserting that its usual connection to the verb *reo* ('to flow') and to the coming and going of the waves is just a later development. Benveniste explains how one of the earliest uses of *rhythmos* is made by Aristotle in his account of the philosophies of the atomists Leucippus and Democritus. In this context, *rhythmos* means 'form', intended as "the characteristic arrangement of the parts in the whole" (Benveniste, 1971, p.283). However, the form that rhythm designates is not a rigid frame, but

> the form in the instant that it is assumed by what is moving, mobile and fluid, the form of that which does not have organic consistency; it fits the pattern of a fluid element…It is the form as improvised, momentary, changeable (Benveniste, 1971, p.286).

The duality of meaning and the etymological confusion surrounding rhythm is highlighted also by classicist and art historian J.J. Pollitt. "Modern scholars have fallen in two basic camps", he explains,

> those who derive *rhythmòs* from 'reo', 'flow'… and those who connect it with 'èrùo' and related words, either in the sense of 'draw' or in the sense of 'protect, guard, hold in honour' (1974, p.221).

In this sense it served well both the rationalistic tendency, which so typically characterised Modernity and the same time its opposite reactionary propensity towards unreason, as I will aim to show below.

Kinaesthesia and Rhythm in Art and Experimental Psychology

Gustav Theodor Fechner's *Vorschule der Aesthetic* (1876) may be seen as a starting point for the New Aesthetic turn in Germany (Ceilik, 2007). 'The double way in which human knowledge strives to root and develop itself', affirms Fechner, 'is to be recognised also in the realm of the Aesthetic' (Fechner, 1876, p.1. My translation). This "double way" is epitomised by an "aesthetic from above" and an "aesthetic from below". The former, coming from the German philosophical tradition of Schelling, Hegel and Kant, starts from general ideas and concepts to analyse the particular; the latter, allegedly proposed by "the English", that is, the British empiricists (Fechner, 1876, p.3), looks at the particular to infer the general. The two go together, as one could not be complete without the other, but Fechner dedicates the rest of his book, which will constitute the foundation of psychophysics, to the description of the method 'from below'. What was truly new about Fechner's approach was his eudemonistic principle (*Lustprinzip*): contrary to Kant's celebrated sublime as ultimate ethical and aesthetical truth, the eudemonistic principle stated that pleasure and displeasure (both coming form the body) would be the determinant factors in aesthetic appreciation. The body becomes, then, the foundation from which a new aesthetic and a new society may develop. Fechner's studies were published nearly synchronously to Nietzsche's, and, similarly to Nietzsche, Fechner's eudemonistic principle was cutting off the Enlightenment's focus on the intellect by bringing aesthetic appreciation back to a bodily substratum.

As shown by architecture historian Zeynep Ceilik's study of the New Aesthetic movement in Germany, the aesthetic paradigm was intimately connected with political reform. Contrary to the idea of *Bildung* inherited from the 19th century, the New Aesthetic and its focus on the body, effects (Wirkungen) and kinaesthesia was promoting the possibility of a widespread appreciation of art which was not depending on a unitary, middle-class, white, male self. Indeed, this approach

> started defining a self that was no longer autonomous and indivisible but was amenable to the influence of the environment (Ceilik, 2007, p.45).

The case of kinaesthesia exemplifies the interconnection between movement, body and rhythm. Kinaesthesia, the 'sixth sense' dedicated to the perception of movement, was officially introduced in medical history in 1826 by physician Charles Bell, who first

thought of our muscles as an organ of sense. Subsequently, physiologist Henry Charlton Bastian in the 1880s developed these insights and produced a theory for the sense of movement, which was called kinaesthesia (from the Greek "*kine"*, movement and "*aesthesis"*, perception). Kinaesthesia become of central importance for the nascent discipline of experimental psychology, considering its physical substratum. Indeed, in a study of 1913 psychologist G.V.N. Dearborn concludes that:

> Kinaesthesia is about…to come into its own as the primary and essential sense…The very meaning of protoplasm, physically speaking, is motion (quoted in Schwartz, 1992, pp.81-82).

Kinaesthesia brought about a revolution in terms of theories of perception and representation, because it highlighted the immediacy of response:

> there was no longer any trace of the 'reflection' or association found in empiricist theories. (…) Experience in the discourse of kinaesthesia was neither an indiscriminate registering nor a careful filtering of sensations; instead experience was theorised as the 'enjoyment' (*Genuss*) of the immediate effect felt on the body's musculature (…) Kinaesthesia, understood as a uniquely corporeal self-consciousness, was the only kind of reflection possible in this model of experience (Ceilk, 2007, p.44. Italics in the original).

Kinaesthesia became then the 'training ground of modern selfhood' (Ceilik, 2007, p.37), a selfhood which was permeable in regards to the environment and which put together vitalist philosophies and rhythm.

Interest in rhythm and its connection with mind and body is traceable also in the experimental psychology literature of the turn of the 20th century. Psychology's interest in rhythm focussed primarily on its relation to muscular tension, kinaesthesia and consciousness. In an influential study on the relation between rhythm and kinaesthesia written in 1913, Christian Ruckmich concludes that

> [u]nder the conditions of these experiments, it proved that, whatever was the material presented for rhythmisation (…) kinaesthesis was essential for the establishment of a rhythmical perception (p.359).

Psychology's assumed mind-body parallelism allowed scientists to infer mental states by observing bodily ones. One of the phenomena which interested the initiator of experimental psychology Wilhelm Wundt and his disciples was rhythm. Wundt describes the relation of rhythm to consciousness as follows:

> Consciousness is rhythmically disposed, because the whole organism is rhythmically disposed. The movements of the heart, of breathing, of walking, take place rhythmically. . . Above all, the movements of walking form a very clear and recognisable background to our consciousness (quoted in Ruckmich, 1913, p.308).

Wundt's concern with the relationship between bodily and psychic rhythms, besides having an impact on Laban's work[13], as we will see, is something that will influence subsequent research in the psychological field and it was the starting point for studies looking at ways in which, triggering muscular action, rhythm could be seen to "play" the body. Understanding how external rhythms could influence internal ones, that is, how to manipulate both body and mind of the individual, became then *en vogue* in conjunction with the nascent science of crowd control initiated by Gustave Le Bon.

Rhythm and Political Propaganda

The idea that every body and every nation had different (bodily) rhythms was sinisterly popular among intellectuals such as Nietzsche, Richard Wagner, Oswald Spengler and Karl Jung (Golston, 1996) and it emerges also in the approach to "the primitive" and its relation to rhythm which resonates in Laban's text below. The "primitive" is here characterised by their presumed lack of cultural sophistication, something that highlights the biased socio-evolutionary Western-centred approach to non-industrial, non-capitalist societies of the time; at the same time, however, primitivism was also "romanticized" for its promise of eluding industrialised modern life and therefore fulfilling the vitalist-

[13] Wundt's *Grundzuge der Physiologischen Psychologie* (1874) appears in an early list of books, which Laban compiled in his first monograph (Laban, 1920).

volkisch ideal of a "return to nature". In this sense, we can often find it in Laban's texts. The contrasting reception of 'the primitive' was directly linked with the theorisation of rhythm and fed also into the NS "blood and soil" propaganda. Indeed the 'Rhythmikers', including Laban, 'mixing *Korperkultur* with the concept of "Ur-rhythm", aimed at revitalising society by creating a new man' (Wedemeyer-Kolwe, 2004, p.100). The definition of a "German rhythm" was in fact something the Nazi regime was striving to come into terms with. Indeed, experts on rhythm, among which were Laban and also Rudolf Bode were called upon to define German rhythm. In 1935, Laban himself was asked by the Ministry of Popular Enlightenment and Propaganda to describe the elements of German dance: '[It] is necessary to observe', he wrote,

> that racial characteristics stamp themselves in the movements, especially in the rhythm, in the posture of the body, and the use of the body parts (Laban, quoted in Karina and Kant, 2004, p.171).

What seems to be clear, by looking at Laban's text above, is that he supported the NS racial politics and, as commentators have underscored (Karina and Kant, 2004), also aided in their promulgation. Laban's position in relation to National Socialism is debatable. Commentators are divided, but, although it is true that a deeper engagement with Laban's work shows the extent to which he was genuinely against any political affiliation, it is also difficult to overlook archival and historical evidence, which exposes him as a sympathiser in some crucial periods of his life. Without wanting to undermine the importance of Laban's collaboration with National Socialism, it must be made clear, however, as other commentators have noted (Cowan, 2012), that aspects of the Nazi-fascist's propaganda were present in discourses at the turn of the century independently from the later use made of them and that, as I aimed to show, is the case of rhythm[14].

Rhythm and Labour

Karl Buecher's monograph *Arbeit und Rhythmus* (1899) was without any doubt the most influential study published on rhythm at the turn of the twentieth century (see Rabinbach, 1992). Indeed, Georg Simmel draws on Buecher's study, published a few years earlier, in the rhythm-related chapter of his masterpiece *The Philosophy of Money*

[14] See also Chapter 2.

([1900] 2004). Simmel's definition of rhythm as a "rationalistic-systematic principle" which annihilates human spontaneity and his idea that the work in the factory "brings about a deadening of the sense of rhythm as such" brings to mind Bucher's earlier work. Through a meticulous exploration of songs accompanying the work of tribal communities, Buecher shows how rhythm comes from the bodily movement of labour and how with modernisation and the loss of bodily activity in the factories, rhythm changes. For Buecher, "the ordered organisation of movement in its temporal progress" which is rhythm

> originates from the individual's organic being. [Rhythm] seems to regulate the economical use of energy of all natural operations of the animal body (Buecher, 1899, p.358. My translation).

The artificially standardised rhythm of the machines, then, upsets the natural unrestrained rhythms of the body: capitalism's quantisation wins over rhythm's qualitative nuances. Rather than a longing to re-instate the original condition, however, Buecher hopes for a fruitful synchronisation between human and machine rhythm. It is in this context that Laban's application of his effort theories in the English factories during the post WWII period should be placed. Laban's acquaintance with Buecher's theories has recently been underscored by Evelyn Doerr (2008). She describes how Laban's pupils in Ascona (the Swiss retreat where Laban spent most of WWI and that he visited in the Summer period on different occasions) were working and chanting under the master's supervision. "This work", she explains,

> was carried out rhythmically with the help of self-composed work songs in accordance with the approach Karl Buecher described in his 1896 *Arbeit und Rhythmus* (Doerr, 2008, p.32).

The reason for amplifying the natural rhythm of labour with chants is to be found in Buecher's discovery that an increase of efficiency and 'happiness' derived from the application of this method.

Economy of Effort

Although certainly influenced by the 'Time and Motion' studies introduced by Taylor and touched upon previously in this chapter, Rudolf Laban's and businessman Frederick Lawrence's method, which they baptised 'Laban-Lawrence Industrial Rhythm', allegedly

> proved to be more than a timesaving device. Throwing new light on the nature of effort, it revealed itself as a method of instruction and training leading to increased enjoyment of work through the awareness and practice of its rhythmic character (Laban and Lawrence, 1947, p.xi).

In what seem notes on the material his students would have to be made familiar with, time and motion studies are mentioned under 'knowledge of adjacent fields' (Fig. 9).

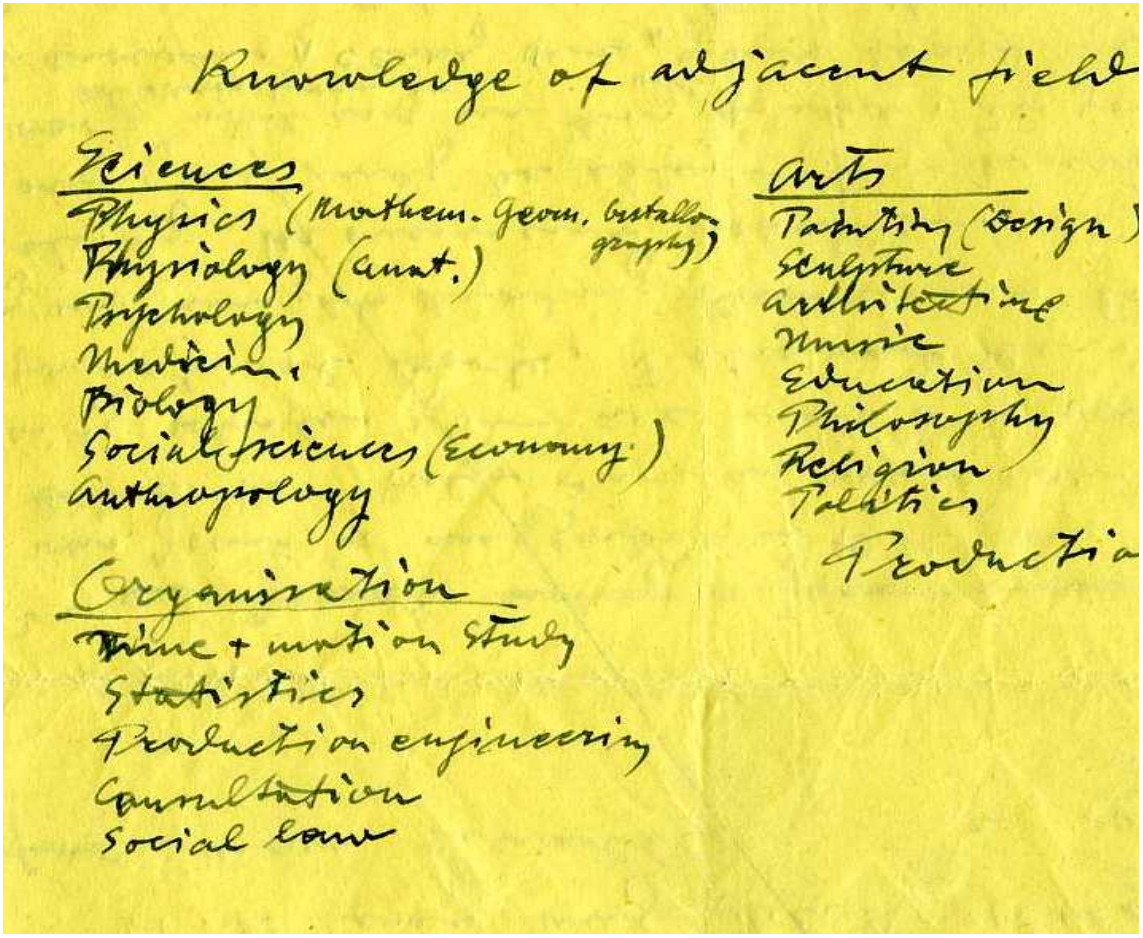
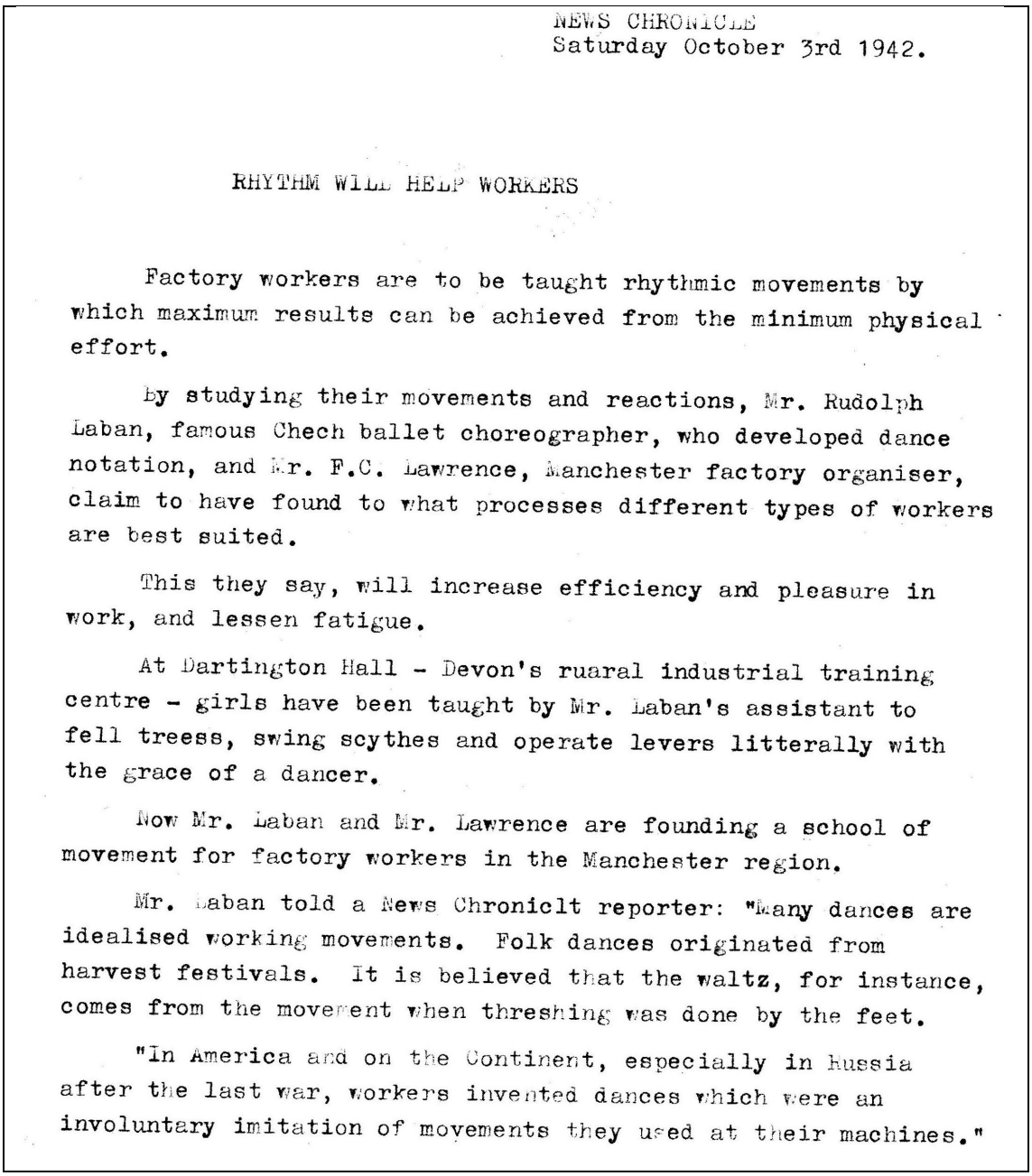


Fig. 9: Time and Motion Studies. For source see Table of Figures pp.6-10.

Laban developed his effort theory in his English period (1938-1958). However, he was concerned with the quality of movements also in the early German years. Laban and Lawrence devised a 'complete technique' in order to analyse the "endless variations of rhythm", a technique that implied the use of diagrams (see Chapter 6). The methodology here is to be intended as a rigorous yet anexact one: the diagram allows indeed both quantitative analysis and qualitative synthesis and in displaying rhythm as dynamic vectoriality, it is a non-representational tool allowing for explorations of the interactions between movements. What Laban and Lawrence studied, indeed, was not postures, but the movement in-between.



NEWS CHRONICLE
Saturday October 3rd 1942.

RHYTHM WILL HELP WORKERS

Factory workers are to be taught rhythmic movements by which maximum results can be achieved from the minimum physical effort.

By studying their movements and reactions, Mr. Rudolph Laban, famous Chech ballet choreographer, who developed dance notation, and Mr. F.C. Lawrence, Manchester factory organiser, claim to have found to what processes different types of workers are best suited.

This they say, will increase efficiency and pleasure in work, and lessen fatigue.

At Dartington Hall - Devon's ruaral industrial training centre - girls have been taught by Mr. Laban's assistant to fell treess, swing scythes and operate levers litterally with the grace of a dancer.

Now Mr. Laban and Mr. Lawrence are founding a school of movement for factory workers in the Manchester region.

Mr. Laban told a News Chroniclt reporter: "Many dances are idealised working movements. Folk dances originated from harvest festivals. It is believed that the waltz, for instance, comes from the movement when threshing was done by the feet.

"In America and on the Continent, especially in Russia after the last war, workers invented dances which were an involuntary imitation of movements they used at their machines."

Fig. 10: Rhythm Will Help Workers. For source see Table of Figures pp.6-10.

Central to the method is effort or 'effort-rhythm' (Laban and Lawrence, 1947, p.xv). It is clear from Laban's and Lawrence's introduction to their book *Effort* that the effort is intimately related with rhythm and so the booklet results in the most thorough examination of this phenomenon made by Laban, also by way of two-dimensional visual models, as will be shown in Chapter 6. In order to "compile a systematic survey of the forms effort can take in human action" (Laban and Lawrence, 1947, p.2), it is explained, it becomes necessary to study bodily rhythms, and this is what Laban did, not only in this publication, but throughout his career (see Fig. 10).

Laban and Bode

In this part of the chapter Laban's rhythmic ontology will be analysed. This will be done by comparing one of Laban's early German texts to the work of his contemporary Rudolf Bode (1881-1970). Bode is here introduced in order to better understand Laban's understanding of rhythm. Bode's influence was more circumscribed than Laban's, but as initiator of *Ausdruckgymnastik* he enjoyed success during his life both as a theoretician and as a practitioner. After having studied with Emile Jaques-Dalcroze, the influential inventor of *eurhythmics*, Bode founded in 1912 his own school of rhythm in Munich, which taught Gymnastics by following Bode's theorisation of rhythm as discussed below.

Connected in different ways throughout their lives by their interests and aspirations, Bode is reported to have been 'one of Laban's bitterest foes' (Doerr, 2008, p.165) and Laban Bode's 'most pernicious rival' (Toepfer, 1997, p.128). Though their antipathy to one another didn't explode publicly until 1934 (Doerr, 2008, p.165), but the seeds of their disagreement were planted years before. In 1925 Laban became an associate of the Deutsche Gymnastikbund in which Rudolf Bode figured as a very influential member. Although apparently coinciding with the main line of thought expressed in the Bund, soon Laban's approaches to movement proved to be different. As he stated in his *Gymnastik und Tanz* (1926) Laban made a clear distinction between *turnen* or gymnastics needing equipment and focussing only on body-building, and dance, with its focus on the means of expression for "the communication of the hidden secrets of the world" (see McCaw, 2011, pp.83-92). These methodological distinctions lead to the separation of the organisation into two: gymnasts and dancers, each claiming to

represent “the whole modern pedagogy of movement” (Doerr, 2008, p.165). This disagreement also brought to a separation between the education-oriented Militant League for German Culture, lead by Bode up till 1935, and the Ministry of Culture directed by Goebbels, which, in 1933 appointed Laban as head of the Berlin Staat theatre (Manning, 1993, p.308). As explained by a commentator

> [a]lthough both Bode and Laban positioned their art forms in the service of the NS ideology, they each proposed -despite their similar tones regarding racial politics- different concepts of movement, based on gymnastics or dance respectively, as the foundation for NS policy regarding the body (Doerr, 2008, p.165).

Besides their different views on movement Bode and Laban also had different approaches to rhythm, which are expressed in the text I will analyse below. If in Bode's text the chiasm between *Takt* and rhythm is definite and unresolved, in Laban's we get closer to defining a poly-rhythmic approach. Bode's irrational, undivided, unbounded wave or flow of rhythm presents striking differences with Laban's harmonic, eurhythmic and polyrhythmic one. Bode's insistence on the incapacity of the intellect to grasp the flowing nature of rhythm and its dualistic uncompromising view in regards to the latter is at odds with Laban's harmonious triangulation of Eurhythm, Kakorhythm and Ur-Rhythm.

Bode’s *Rhythm and its Importance for Education* ([1920] 2014)

Besides being aimed at laying down the foundations of *Ausdruckgymnastik*, Bode's *Rhythm and its Importance for Education* is primarily a critique of the ‘mechanistic’ view of rhythm represented by the Jaques-Dalcroze method. Emile Jaques-Dalcroze famously delivered his teachings, meant to reform society as a whole, in Hellerau (Germany). Even though the school itself was short-lived (1910-1914) the method’s influence was widespread in all Europe at the turn of the century. Bode, however, who studied with the master in 1910 and 1911, identified Dalcroze’s theorisation of rhythm with a social order, which did not represent the future of the new Germany to come. “Our current time in its entirety”, he argued, “is under the spell of this fallacy” (Bode [1920] 2014, p.53). The main thesis put forward by Bode was that rhythm is a continuum and as such not graspable rationally:

> it can only be looked at and experienced: moreover, rhythm has to take part in the Irrational. Rhythm is irrational, i.e. it is not subject to the judgmental, comparative, measuring functions of the intellect. And now we understand why everything spatial and temporal happens at the same time in rhythm, because our experience is a continuum in space and time at once. If I divide space and time, then I am immediately outside what is lived, outside rhythm. Because each division is a coming into force of the rational functions [of the intellect]. The continuum, or, as we may want to say: that which is not divided, is the fundamental characteristic of rhythm ([1920] 2014, p.55).

Bode's philosophical approach, as he goes to great lengths to explain, derives from Ludwig Klages's. The latter was an influential thinker at the turn of the century in Germany and his arguments for the separation of *Geist* (intellect) and *Seele* (soul), *Takt* (measure) and rhythm, rational and irrational were highly popular in the Koerperkultur milieu (Lubkoll, 2002, pp.90-93). It has been argued that by counterpoising the continuity of rhythm to the staccato of *Takt* Klages, and with him Bode, followed the Bergsonian differentiation between *temps* and *durée* (Lubkoll, 2002, pp.87-90), giving birth to a philosophy of rhythm exemplified by Klages's affirmation: "Takt repeats, rhythm renews" (1934, p.33. My translation).

Moreover, the core of Dalcroze's method was for Bode the subjection of the body to the power of the intellect. Against this rationalistic-voluntaristic stance, which he also identifies as the cornerstone of the nascent experimental psychology of his time, Bode campaigns for the ungraspable and undivided nature of consciousness and, with it, experience. The second target of Bode's critique is the economist and musicologist Karl Buecher. The kernel of Bode's critique of Buecher is the latter's hope for a fruitful synchronisation between human and machine rhythm. Together with Klages, Bode seems to have re-interpreted Bergson's philosophical approach towards a unilateral appreciation of only duration, of flow. As we will see in the next section, instead, Laban seems to have been much more aware of the duality of the concept of rhythm.

Laban's 'Eurhytmy and Kakorhythmy in Art and Education' ([1921] 2014)

In an article published in *Die Tat* journal in 1921[15], Laban dwells on the concepts of 'Eurhythmy' and 'Kakorhythmy'[16]. The author starts by positing a fundamental co-dependency between rhythm and movement; the latter is not only a phenomenon whose study, as we have seen, characterised Modernity as such, but it is also what became Laban's life-long object of research. In terms echoing Zerbst's seen above, Laban explains how reality is in constant process where stasis is only an illusion, where forms are in constant movement and unroll following an original Ur-rhythm. For this reason, rhythm is traceable everywhere, both in the shapes that nature and movement create and inside one's body:

> The totality of all imaginable sequences of movement is rhythm in nature. But does anything exist that is not an outcome of movement? The easily definable, clearly visible good order [Wohlordnung] of sequences of movement is beautifully rhythmic, eurhythmic. However, in the end does anything exist that is not well ordered, that is, perceivable as being composed of the basic elements? (p.75).

Here, Laban clearly expresses his processual view of reality, which takes a rhythmical, flowingly but also harmonious and symmetrical shape. Laban also explains that the phenomena we may perceive to be static are in fact moving either too quickly or too slowly for our senses of perception, so that we have the illusion of their rigidity:

> Phenomena that were not recognized as aftermaths of movement – either because the movements involved in their formation and decay were too swift, too slow, too far or too near, or because they changed too rapidly or too silently – were called immobile, rigid, static. But also in those forms it is possible to perceive good order, and to define them as regular, symmetric and proportional (i.e. harmonic) as a result of the increasing degree of movement inherent in them (pp.75-76).

[15] In 1921 *Die Tat* was still under the direction of Eugen Diederichs and was not yet involved in promoting right-wing *voelkisch* ideals or Nazi propaganda as from 1929 onwards.
[16] 'Eu' and 'Kakos' are two prefixes indicating respectively 'good' and 'bad' in ancient Greek.

In the next section Laban outlines the important relation between movement and rhythm. If every movement is rhythmical, we understand that Laban's 'language of movement' is, ultimately, a 'rhythmical language', or a 'language of rhythm'. In his 1950 book *The Mastery of Movement* Laban would indeed venture saying that "[r]hythm seems to be a language apart, and the rhythmical language conveys meaning without words" (Laban, 1950, p.82). This bears important consequences for the analysis of his notational project on the one hand and for the use of diagrams in his research methodology and opens up a space to question the relation between diagrams and rhythm, which will be explored in Chapter 6. "Every phenomenon", Laban claims,

> including those which are perceived by us as immobile, is in constant motion, and it is therefore intrinsically rhythmic: for it receives its unique quality – the hallmark of its unity – due to the resonance of specific nodal points [Knotenpunkte] of an infinite range of phenomena. But this resonance is nevertheless always movement. Every regularity, symmetry and proportionality and harmony is caused by forces [Teilspannungen] which, turbulently flowing into and around each other, generate structures [Gebilde] of clearly perceptible harmonious rhythm [Wohlrhythmus]. Good order in all forms, whether moving or apparently still, is also eurhythmy (p.76).

Besides the very influential use made by contemporaries of Laban such as Rudolf Steiner and Francois Delsarte of the word and concept of 'eurhythmy', the latter's meaning had been "discussed and disputed more than that of any other term in the terminology of ancient are criticism" (Pollitt, 1974, p.173). Reproducing aspects of the 'rhythm debate' seen above, eurhythmy was made to derive, in nineteenth century art criticism, from either an idea of form as that which captures a body in movement (Pollitt, 1974, p.176) or from symmetry. However, and here again we hear an echo of previous discussions on rhythm, for some "eurhythmy was a softened, more pleasing form of symmetry in which deviation from 'real' mathematical commensurability has been allowed" (Pollitt, 1974, p.175)[17].

[17] Interesting to highlight here is also the relation that rhythm and eurhythmy have with architecture, Vitruvius being the main source critics refer to. The interest lies here in Laban's often evoked connection between dance and architecture. Although it is not certain whether Laban followed architecture courses at

The next issue to tackle is for Laban the relation between Eurhythmy and Kakorhythmy. He describes as kakorhythmic "those phenomena, whose constituent subrhythms we cannot perceive as regular, or symmetric or flowing into each other in good proportions" (*ibidem*) and states that the boundary between Eu-and Kokorhythmy is rather loose. "A subtly tuned organ of perception", Laban argues,

> knows how to detect the rule, the order, the structure of the complexity – in short, the existence of harmonic flow even in the most apparently complicated kakorhythmy. The civilized man [Kulturmensch] seeks, and is able to consciously recognize, what primitives sensed only unconsciously: all that exists and happens emerges from a more or less complex metamorphosis of simpler base rhythms [Grundrhythmen]. The origin of these base rhythms was always sensed as being Ur-rhythm (*Ibidem*).

Here we find a reference to 'the primitive' discussed above, and which Laban here discusses in derogatory terms. Laban also dwells on the relation between what he calls 'inner' and 'outer' rhythms and this connection assumes in the text a socio-ethical dimension: it is a well-ordered rhythmic life that it is sought, not one where boundaries and rules impede the natural rhythm to express itself, but neither an 'extreme' one where irrationality reigns:

> The individual has two options in order to harmonize or connect their personal rhythm [Eigenrhythmus] with the rhythm of all other happenings. They can either close their mind to what is alien to them or beyond their level of development, that is, to whatever is kakorhythmic relative to their skills; they will hedge themselves around with rules and practices, impose technical schematas on what is natural, and install security measures in order to exclude what they perceive as kakorhythmic. Or they can aspire to increase their skills to the ultimate in order to comprehend, and thus experience as eurhythmic, as large a part as possible of the all-encompassing rhythm [Allrhythmus] (p.77).

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the Ecole de Beaux Artes in Paris in the 1910s, material in the NRCD archive testifies for his dedication to the construction of two- and tri-dimensional models. Moreover, he often states that dance is living architecture (see for example Laban, 1966).

In terms of art and education, it is in the *Festkultur* (Festival or 'celebration') that Laban finds the ultimate expression of rhythmic education. *Festkultur* is related, in Laban's practice to his movement-choirs, which were composed of non-professional and professional dancers and were performing in large-scale projects such as carnivals and national celebrations. Laban's vision for the movement choirs was for them to express the *volkisch* ideal of a communal experiencing of a higher mystical truth, which is here expressed as the eurhythmic.

> The art of the celebration [Festkunst][3] is freer than pedagogy, philosophy, the applied arts [Werkkunst] and all other forms of development grounded in everyday life. The art of celebration is meant to connect to the all-encompassing rhythm in its complete and infinite variability through dance. Essentially, the Festival knows no kakorhythmy. However, this type of art should not misuse its freedom, and should serve people's hearts, blending the inspiring with the astounding. Only when the Festival unveils the deeper eurhythmic meaning of what seems kakorhythmic by way of affectionate human guidance – only then has it accomplished its task as mediator of the experience of the all-encompassing dance [Alltanzes] (*ibidem*).

Lastly, Laban wants to remind us of the aim of art and dance in particular and refers explicitly to the mechanistic (or "schematic quantitative") approach, which Rudolf Bode identified earlier as the enemy of rhythm. He argues that:

> Art and education will be effectively eurhythmic, that is, they will sustain civilized man's perception of nature's fundamental eurhythmy, when they cease trying to extend or constrict the individual's horizons with any schematic quantitative principle (*ibidem*).

Rather than presenting us with an eulogy of the unrestricted flow of rhythm, Laban's 'rhythmanalysis' is polyrhythmic and vibrating in the very text, where the phenomenon of rhythm takes shape through the manifold way in which it is verbalised: Ur-rhythm,

Eu-rhythm, Kako-rhythm, sub-rhythm, Wohl-rhythm, Everyday-rhythm. This is also visible in a document found in the archive, something that highlights a continuum in Laban's polyrhythmic approach (Fig. 11).

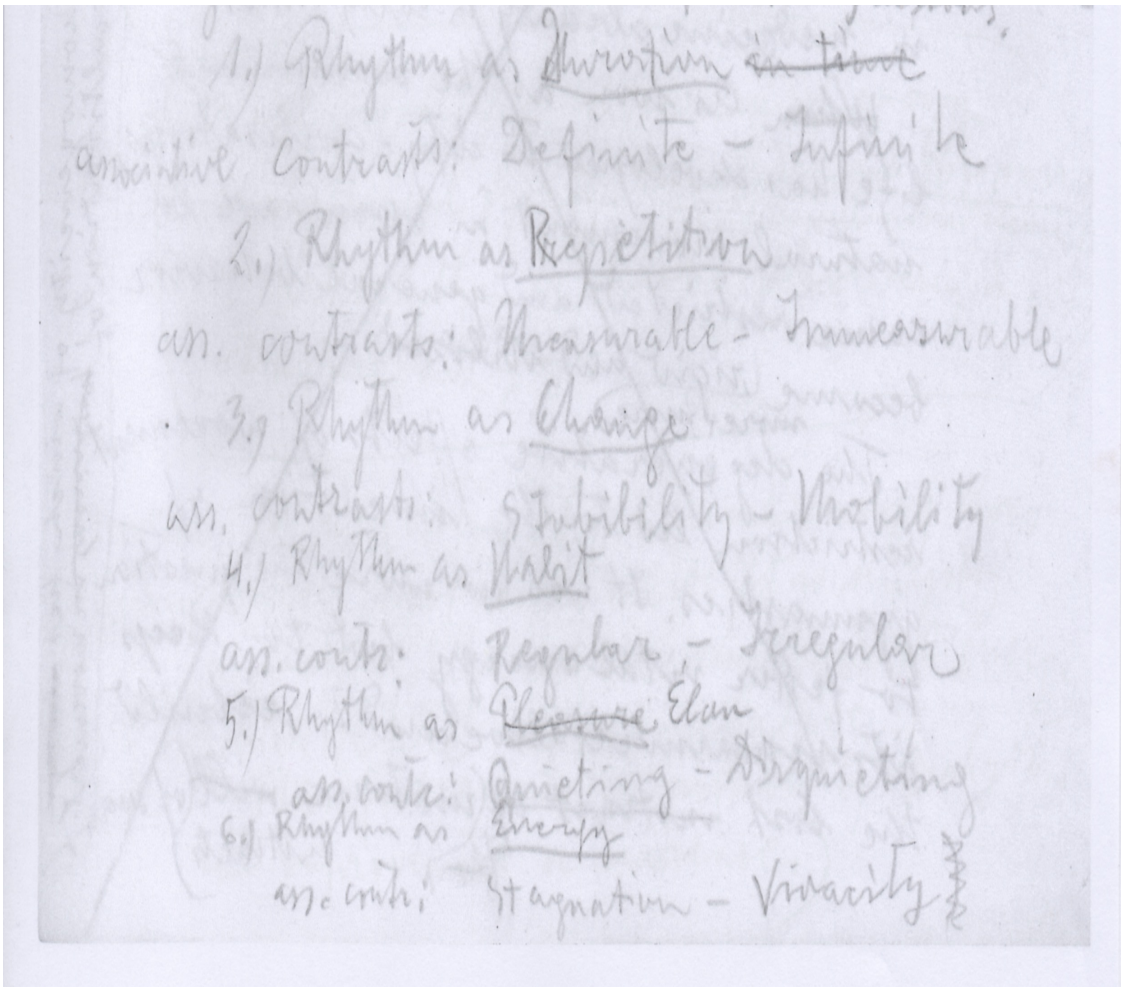


Fig. 11: Different Aspects of Rhythm. For source see Table of Figures pp.6-10.

Moreover, Laban embraced a sort of scientific approach, and this is evident not only in his overall methodology, as I will aim to show in the thesis, but also in this text: reducing multiplicity to simplicity, systematising the natural not through a 'technical schemata' or a 'schematic quantitative principle', but by using a 'rigorous yet anexact'[18] methodology. The divide between eurhythmy and kakorhythmy, between rationality and irrationality, between cosmos and chaos, is difficult to individuate: it is a delicate

[18] See Serres, [1977] 2000, p.29.

balance, what philosopher Michel Serres calls a homorrhesis[19]: this is for Laban the place of rhythm.

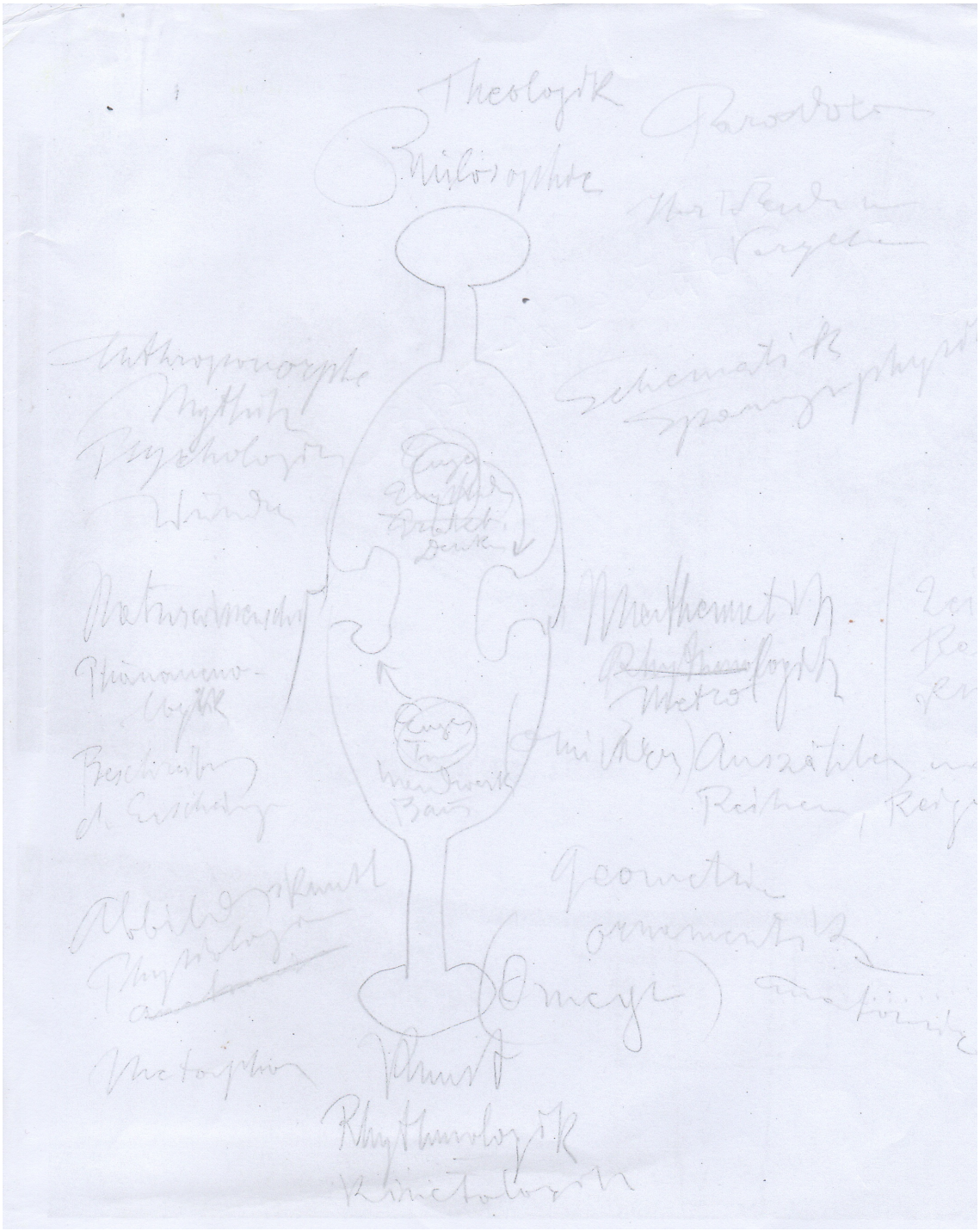


Fig. 12: Meter-logic and Rhythm-logic. Very faint pencil in the original. For source see Table of Figures pp.6-10.

[19] Serres, *Ibidem*.

Further evidence of Laban's attempt to differentiate and integrate Takt and Rhythm can be found in the diagram above (Fig.12). Laban is here organising different fields of knowledge graphically and he assigns 'rhythm-logic' to the realm of mathematics, but then changes this with 'meter-logic'. 'Rhythm-logic' is then assigned to the realm of art and 'kine-logic', the non-metric fields of knowledge.

Rhythmic Cosmologies: Diagramming Plotinus

Laban further discussed rhythm in relation to Takt and graphics in an unpublished document (n.d., L/E/26/56) on the philosophy of Plotinus. The document is typewritten in English and it is a key text for a better understanding of Laban's effort/rhythm theory, in that it focuses on the relation between what Laban here calls *élan*, in Bergsonian terms, rhythm and their geometrical or graphic rendering. In fact, Laban is here exploring the Greek philosopher's ontology and cosmology in relation to rhythm, emanation and dance.

Plotinus, generally recognised as one of the founders of Neoplatonism, was born in Egypt in 204/5 C.E. and died in Rome on 270 C.E. He became known mostly as interpreter of Plato's doctrines and he played a pivotal role in the esoterico-mystical Christian tradition. Rather than being concerned with Plotinus' theoretical apparatus, however, the focus of the analysis will be Laban's re-appropriation of Plotinus' ideas and the way these can be said to constitute the basis of Laban's theory of effort/rhythm.

Laban is particularly interested in Plotinus's understanding of the 'rhythmical outflow of the universe' as the 'patterned movement of a universal dancer'. Here the 'universal dancer' is seen as 'cause of the reality which [she] enacts', and that, on the other hand, through this enactment, produces her anew. Laban moves here inside what might be called a rhythmical paradigm of 'emanation'. Being unfolds then itself into all its qualities in the guise of the rhythmical movement of a dancer and in this unfolding creates itself anew, metamorphises. Rather than a static Being, the primary cause is here interpreted by Laban as Becoming-world through the rhythmical emanation of dancing-like gestures.

In a section of the same document entitled 'Plotinus' philosophy of movement. Radiation and its geometrical symbol: centre and radii' Laban explains how "in Plotinus'

system reality is radiation, and radiation is a correlation between centre and radii or darting arrows" (*ibidem*). "The radii", he goes on to say, "are only an extension or metamorphosis of the centre, they are the centre in motion: they expose the faculty of the centre of emitting and re-absorbing vectors" (*ibidem*), and, in their extension, "present the field of force" (*ibidem*) of the initial point of intensity. "Towards the centre", he adds, "repetition in the monotonous succession of time and space is increasingly being replaced by genuine variation, metamorphosis". Difference is therefore giving birth to repetition in Laban's interpretation of genesis as found in Plotinus.

Contrary to Plato's static view of rhythm as "cause which orders and arranges" (Plato, Laws, quoted in Laban, *ibidem*), in Laban's interpretation of Plotinus the latter "dynamises this view" by rhythmicising the universe itself. "The rhythmical arrangement of forces stores up and releases formative energies which run through all the included parts (…)" states Plotinus (Plotinus, quoted in Laban, n.d., L/E/26/56) but rather than an harmonious flux of energy, Laban's reading of Plotinus projects this rhythmical dynamic into multiple dimensions: "rays bond and curve in space and time", he explains, "and the field of force is broken up into several planes, towards the vertical and towards the interior or exteriors of the covered expanse" (*ibidem*). These different plateaus and dimensions of reality emerge through the rhythmical pulse of a point implicating multiplicity and unity, chaos and cosmos. "The term point", Laban goes on to explain, "or centre or monad are only symbols. Plotinus emphasises that 'we are not to think in the order of point and monad, but to use these - in their rejection of magnitude and partition - as symbols for the higher concept'''[Plotinus, quotes in Laban, *ibidem*), that is, as symbols that "all is within" (*ibidem*). The centre is then a non-extended point of intensity, which "measures the infinite space of imagination, of the extension of the soul".

This exposition of Laban's concept of rhythm in relation to space and the topo-logical, intended as 'discourse on space', introduces a discussion of his project of a spatial language of movement and of his diagrammatics.

Chapter 5 – Rudolf Laban's Diagrammatics

> "Forms are closely connected with movement. Each movement has its form, and forms are simultaneously created with and through movement" (Laban, 1966, p.3).

The Language of Movement

Laban's writings are interspersed with reflections on the shortcomings of language with regard to the description of bodily movement. He would, for example, refer to those "rather insufficient expressions which our ordinary language offers us" (Laban, n.d., L/E/21/4) when attempting to describe the dynamics of our "inner and outer movements" (*ibidem*) and would state elsewhere that "words are not entirely adequate to motor realities" (Laban, n.d., L/E/23/40). In 'The Rhythm of Living Energy' (Laban, n.d., L/E/24/23), Laban expresses his interest in developing a language of movement and suggests that "we should become more conscious of that great kinetic and rhythmical language which fills the world and our own existence" (*Ibidem*, p.8). The relationship between the moving body and text, 'presence' and inscription is at the centre of debates in Performance Studies today and finds its origins in the work of Jean-Georges Noverre (1727-1810)[20], one of the few authors that Laban openly refers to in his writings. It could be argued that his unorthodox[21] style of writing, besides being a product of Laban's peregrinations and exiles first in Germany and then in the United Kingdom, also derives from an essential defect of the written word in relation to the description of movement.

Modernism in dance was characterised by an attempt to give birth to 'absolute dance' intended as dance "that speaks through movement alone" (Boehme, 1926, p.157). Laban's liberation of dance from its subjugation to music can be seen as being part of this project. At the same time, however, Laban felt that, in order to position dance at the same level with the other arts, a way to record it had to be invented. His invention of a graphical language of movement, something he also calls 'spatial language' (McCaw, 2011, p.111), derives from this need. Laban saw bodily movement as meaningful[22] and attempted to understand its syntax and vocabulary allowing the understanding of bodily movements as "readable words of a language of deeds" (L/E/23/40). However, meaning

[20] See Lepecki, 2004.
[21] See McCaw, 2011, p.18.
[22] Laban refers to the "inherent meaning of the movement" and "the inherent content of the movement utterance", for example, in a document found in the NRCD archive (E/L/21/1).

is here not to be understood as logical sense making, but as sensual and rhythmic. It is the rhythmical inflection of the language of movement that guided Laban's interest. Therefore, Laban develops form the representational and logo-centric understanding of meaning a diagrammatics expressing rhythm (see Chapter 6).

Starting in the years around 1915 with his Kinetography project known initially as *Schrifttanz*, literally, 'dancing script', Laban's outlining of a corporeal, kinetic, rhythmic and graphical language is something he will be concerned with throughout his entire life and that would take different visual shapes. What joins together the different forms of this 'grammar of movement' is their concern with the expression of movement and rhythm itself. "There is a science of dance[23]", Laban argues in an unpublished text for a lecture found in the NRCD archive,

> but dance is not a science. It is a language. […] The science of dance is the science exploring the elements of this language, (…) *the rhythmical language of dance*. (…) We have to ascertain by means of science the methods of Nature's operations. And these operations reside, as any action, in movement and rhythm (L/E/23/4. My italics).

Laban's task as a 'scientist' of movement and rhythm was then to find an adequate medium capable of working through his 'objects' of investigation, a method which relied on two-dimensional visual representations, as evidenced by his Kinetography, the diagrams through which he was working, his Movement Scales and his effort graphs (see Chapter 6).

It has been noted (Bodmer, 2011, p.xvii) that Laban was a quasi-scientist: he despised what he saw as science's totalitarian claims to knowledge, but at the same time utilised an analytical attitude towards the study of movement. This duality permeates all of Laban's thought and it is, arguably, at the root of his pursuing a middle-way, an 'in-between', also in terms of methodology. That is, he was on the lookout for a methodology, which would allow both approaches, scientific and artistic. This had the

[23] Laban thinks of rhythm as originary ('Ur-rhythm'), as seen in the previous chapter, and of movement as originated by rhythm (see Laban, 1921). In speaking of a 'rhythmical language of dance', Laban stresses again rhythm's (and movement's) primacy in relation to dance. In this sense, it is possible to speak of dance and movement interchangeably in this context.

aim of facilitating a "synthetic and dynamic thinking" (Laban, 1937, L/E/31/51). Laban gives clear indications in regard to the relation of science to the enterprise of studying movement and rhythm:

> Use your capacity to build up hypotheses as a working basis. Experiment and experience will show you how far and how long they are useful! Science in itself is entirely resultless (sic!) if we do not take the acknowledgement of our incapacity to "know" as a result. In being just, we must say, science liberates us from the prejudice that "iron laws" are at the bottom of nature. They are only statistical rules of extended chance series and have of course a great practical importance' (Laban, n.d., L/E/23/77).

Laban's methodology is then made up of trials which approximate truth without ever grasp it under one system. It delineates itself as a way of knowing neither purely scientific, nor definable as 'a wild-running emotionalism without emotional control' (*ibidem*), which Laban defines as 'the greatest danger to-day' (*ibidem*).

Movement and Form

It is important to look at the relation between movement and form in Laban's work because of his interest in a 'scientific' exploration of the language of rhythm. Laban identifies the problem of reconciling movement and form as that of the "snapshot-like view of perception of the mind" which allows us to perceive "only a single phase of the uninterrupted flux" (Laban, 1966, p.3). As previous commentators have noted (Maletic, 1987; Moore, 2009; McCaw, 2011; Sutil-Salazar, 2012) Laban's words here seem to be strongly influenced by the philosophy of Henri Bergson. Although speculations on the relation between Laban's and Bergson's thought could not so far be based on historical or archival evidence, a fragment from the NRCD archive (Laban, n.d., L/E/23/6) proves that Laban was acquainted with the work of Ludwig Klages, who has been shown to draw part of his ideas on the nature of rhythm from Bergson himself[24]. Laban also openly refers to *élan vital* in his writings on rhythm, as shown in the previous chapter. In

[24] See Lubkoll, 2002 and Chapter 4.

fact, Laban's explanation of the shortcomings of the 'snapshot-like view of perception', which will be explored below, seem remarkably similar to the work of the French philosopher. Laban was not only part scientist and part artist in fact, but he was also keen to theorise on his practice, something that emerges from a thorough exploration of his unpublished writings[25].

In the Introduction to his posthumously published[26] *Choreutics* Laban states that what we perceive as immobile, as objects or forms, is in fact constantly moving: "Today we are perhaps still too accustomed to understanding objects as separate entities, standing in stabilised poses side by side in an empty space" (1966, p.4), he states. However, he continues, "not for a moment they come to a complete still, since matter itself is a compound of vibrations", so that the "impression of rest is an illusion" (*ibidem*). Comparing these affirmations with those of Bergson in his 1907 book *Creative Evolution* sheds light on the similarities between the two authors: "Immobility is only apparent or relative", Bergson argues, and discussing the operations of the intellect he continues by stating that "when it tries to form an idea of movement, it does so by constructing movement out of immobilities put together […] Of immobility alone does the intellect form a clear idea" ([1907] 1998, p.155). We find here Bergson's separation of intellect and intuition, something that Laban was acquainted with through his readings and which is mirrored in Laban's separate use of the words 'mind' and 'soul'.

On another level, Laban did not think of space as the empty and static receptacle of experience "Empty space does not exist", he states, "space is a superabundance of movements" (Laban, 1966, p.3), so that it is possible to speak of his 'vision of dynamic space' (Laban, 1984). It is because of the 'snapshot-like perception of the mind' that we think of space as separate from movement. What is the relation, then, of the single snapshots to the flux itself? "The sum of the snapshots is, however, not yet the flux itself", affirms Laban in very Bergsonian terms, "Cutting a film in pieces", he proceeds, "and heaping up the single pictures in a pile can never give the impression of a movement" (*ibidem*). However, Laban did not exclude the possibility of finding a spatial

[25] Laban is reticent to quote his sources in his published writings, but scattered around his notes, references to philosophers such as Plato, Ludwig Klages and Friedrich Nietzsche, but also Benedetto Croce, John Ruskin and others prove the extent to which he was a keen reader of contemporary and past thinkers.

[26] Laban started working to the manuscript in 1939, but due to economic difficulties was unable to publish it during his lifetime.

form, which could capture, retain and express the dynamics of corporeal movement. A conference paper from the archive entitled ‘Flux and Form’ and dated ‘Paris 1937’ helps us explaining how this may be possible for him.

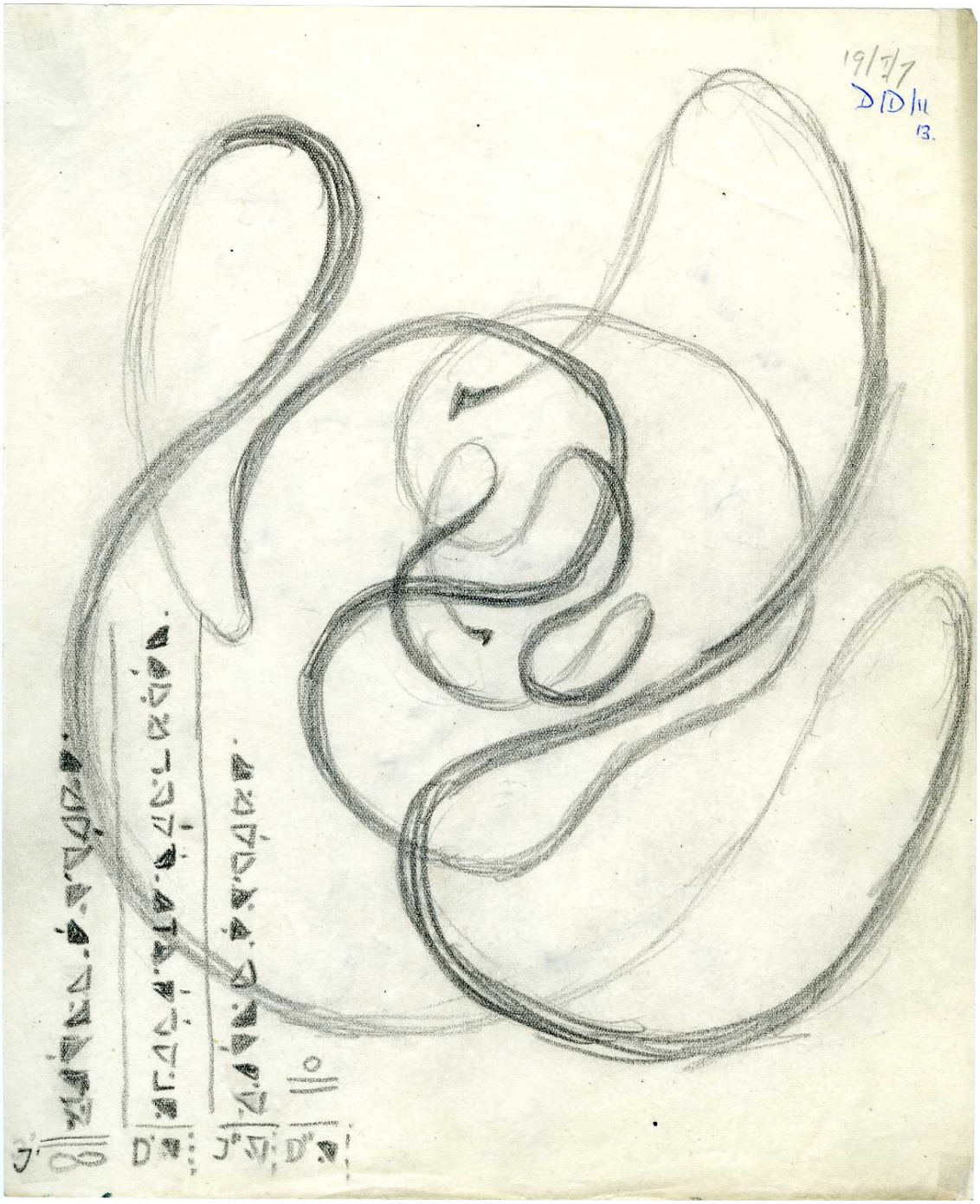


Fig. 13: Different Ways to Notate Movement. For source see Table of Figures pp.6-10.

Despite being ill, as his commentators report, in 1937 during his stay in Paris Laban was lecturing at the Sorbonne (Laban, n.d., L/E/48/18b), and participated in the Second

International Conference of aesthetics and science in art organised by Paul Valery (see Chapter 2). Speaking in the same panel as the curators of the Archiv National de la Danse, Laban's talk was entitled 'Ways to an aesthetics of dance'. Laban starts by distinguishing dance from music and poetry because in his mind dance is universal, in that it connects the individual with the world through rhythm (Laban, 1937, p.474. My translation). He asks then: "How should we approach scientifically or aesthetically an art which communicates in such a volatile medium of expression?" (*ibidem*). His reply refers to Kinetography and the necessity of devising a movement-language. He states that:

> The symbols of the moving form speak a long forgotten language, that we have to learn anew, something that has not been possible, since dance had so far been left in the oral tradition. On the contrary, the signs of the notations that were invented in the centuries to capture dance contain a lot of knowledge, and one can say that these written and numerical signs in different cultures are 'movement-signs' and are a non-representative [nicht Darstellungsmittel] tool for dance thinking, which words could not replace (Laban, 1937, p.477. My translation).

This is a striking example of Laban's understanding of his notations in non-representational terms in opposition to the representative paradigm of language. The relationship between movement and form, articulated in various ways throughout the author's writings (as for example in Laban's concept of rhythm which was exposed in Chapter 4) is expressed clearly in these pages. The following lecture, written in German in the same year, follows a 'pictorial' frame: Laban structured it so that his text notes would depart from drawings/pictures.

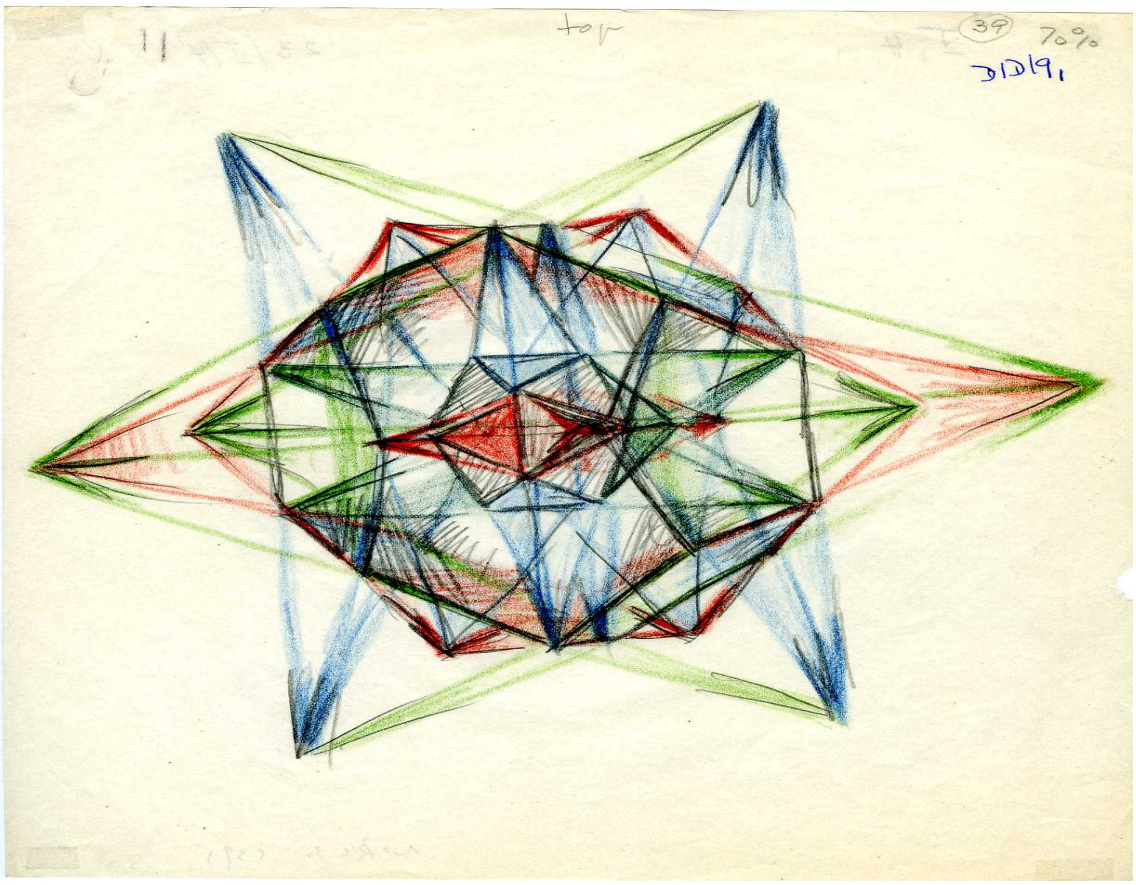


Fig. 14: Crystalline Tension. For source see Table of Figures pp.6-10.

Laban describes a drawing, which has been separated from the text when cataloguing the material, but that we can infer looking like one of the crystalline figures which he was often drawing and of which Fig.14 above is an example. He states:

> The drawing captures a part of the movement phenomenon [Bewegungserscheinung], which I showed before. Edges and straight lines emerge, slopes, heights, peaks, crests, angles, corners. The oblique planes are joined up in edges, the abysses get lost in corners, the edges become peaks. Through this process what emerges is a *dynamically moving drawing* (Bild), not a static form (1937, L/E/31/51. My translation and my italics).

Laban was attempting a reconciliation between the rhythmical dynamism of the corporeal body in movement and spatial form. In his introduction to the main themes in Laban's *oeuvre*, Dick McCaw has recently suggested that the notion of 'tension' [Spannung] in Laban's work is that which connects movement and form, the inside and

the outside. Tension here is seen as generative of change and it was one of the precepts of Laban's training for his dancers. In an excerpt from Laban's first book, *Die Welt des Taenzers* [The World of the Dancer] (Laban, 1920), the movement thinker states:

> All forms live. They are changing constantly, ceaselessly. They are in constant movement and proclaim through their image of tension the directions, which determine their nature. Their *turgor*, their tension strives in these directions. The result, the form, is a harmony of strivings of force (Laban, 1920, p.126. Italics in the original).

For Laban his 'forms', then, are not meant to be static representations of movement, but dynamic media of expression of movement and rhythm. Exploring in which ways forms do express for Laban lays at the core of an understanding of Laban's diagrammatics, which is something that will be explored in the next chapter.

Laban's concern with the interrelation of form and movement is also expressed in an account of a meeting in which he participated in Oxford. The document's date is unknown, but we can guess that the meeting, organised by the 'Collegium Delphicus', took place in the 1950s. The Collegium was founded by Professor Wilhelm Leyhausen (1887-1953) with the aim of encouraging students and amateurs to stage plays around Europe. The groups would participate in the 'Delphiad' festivals, which took place from 1950 to 1966 as "a chance to share their performances, as part of the post-war spirit of European cooperation". Here Laban would have then met figures related to the performing arts world, which he is not willing to name, preferring instead to address them with the more general 'Dr.X' and 'Mr.F'. However, as it becomes clear from the document below, Laban found a way to discuss his philosophical concerns too.

The document is important for three reasons: in the first place, it shows the degree in which Laban was thinking of structure and movement on different levels; secondly, it presents a Laban that was very well acquainted with the philosophical debates of his time and had very clear ideas on where to stand in relation to them; finally, Laban states that the exchange started with a discussion on rhythm, something that highlights the centrality of it in Laban's work and its connection to how Laban thought of the relation of form to movement. At some point in a discussion on the anthropological origins of

rhythm, the conversation which Laban is following in the parlour is interrupted: "Mr. F, who described himself as a philosopher and is indeed the first person having used in his lectures and writings the expression 'existentialism'", recalls Laban,

> tried to reduce, or arrest, our ideas to the formalistic approach to the phenomena of life and world in general. He quoted a man whose name I forget, who said that the fixation of or into form is death. No living being or experience has ever a clearly discernible and characteristic form. What is important is the individual and transient expression or happening which never occurs again. I ventured to state that 'Gestalt' philosophy, which puts such great stress on the form or rather on configuration, and Existentialism, which denies the living importance of configuration, are on the whole the positive and the negative ends of one and the same mental tendency. I did not find (Laban concludes somehow ironically) much approval of this very abstract remark (L/E/23/9).

What it is about, when attempting to grasp reality without doing away with its processual nature, is, for Laban, to mediate between the extremes of formalisation and existentialism as he describes these above, of structure and flux. This can be said to reconnect to his early concerns about the tension of form which are evidently present in Laban's late thought too, a thought that seeks to mediate between ungraspable process and rigid schematism: rhythmic and diagrammatic thought.

Intensive/Extensive: The Rhythmical Genesis of Form

Laban's philosophy is based on a fundamental understanding of the primacy of movement. Laban sees movement as the fundamental aspect of reality and in this sense it is possible to speak of Laban's philosophy of process[27]. Laban also sees movement as primary to cognition, as when he states that the primary task of a philosophy of movement is to understand that "movement and mind [are] not an antithesis in which two opposite faculties of man have to be reconciled, but a unity of which man can become aware of more clearly to-day than was hitherto possible for him" (L/E/26/70).

[27] Although this would divert from the main aim of the thesis, this aspect of Laban's work could be explored in relation to recent work on the primacy of movement, such as that of dancer and philosopher Maxine Sheets-Johnstone (2009). See also the Further Work section in Chapter 7.

Moreover, Laban speaks of a creative force or *élan* (see Chapter 4) originating from what he calls 'the nothing', locus of 'eternal production' (L/E/25/24). He explains how the 'strength or power that moves us is not in us but around us, it is a combination of fluid tensions' (*ibidem*). In this sense it blurs the boundaries of our body and, what is more, shapes our bodies as such similarly to the way in which a streaming of water plastically shapes a stone. Our bodies are moved and move, movement moves through our bodies and shapes reality in a rhythmical exchange between creative flux and structured form.

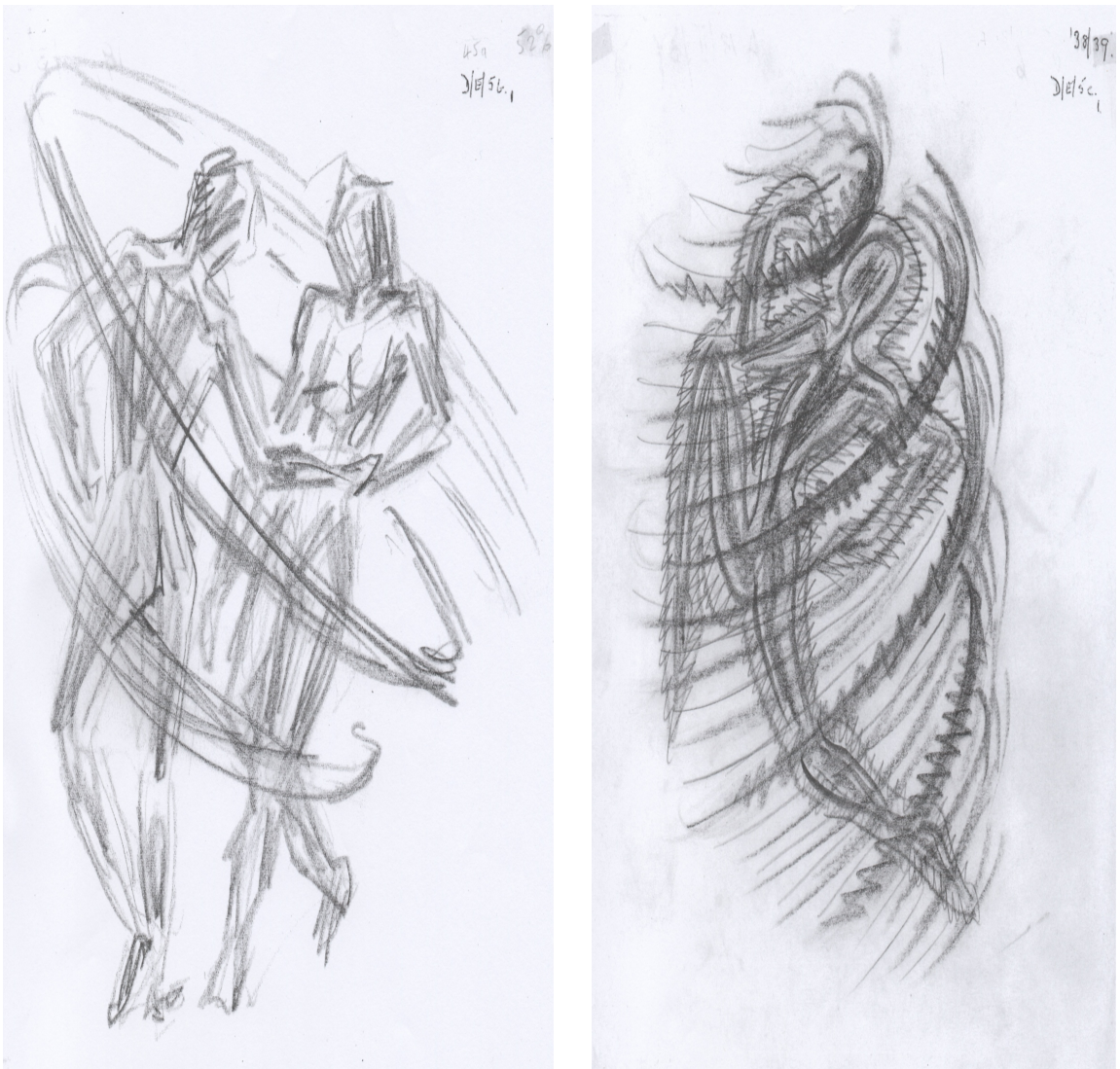


Fig. 15-16: Movement Shaping Figures. For source see Table of Figures pp.6-10.

In the figures above (Fig.15-16) movement is as much generated by the bodies, as it is a force that shapes them continuously from the outside. Movement becomes a frame in itself in these drawings, a moving structure.

Laban's passion for crystals should also be seen in connection to the thematic of movement and form. Laban asserts that "[a] crystal does not have only contours, it also has innumerable inner tensions (Innenspannungen), it is filled with sparks of movement (Bewegungschwuenge)" (E/L/31/51. My translation). Laban's interest in crystals has rightly been singled out by Doerr as a very important aspect of his work (2008): crystals are indeed living geometrical structures, and as such they express both process and form. In this respect, Laban's diagrammatics is a crystallography. "Crystals are compelling', explains one commentator,

> because they are indexical of existential questions, poised at the crossing point of life and death. While their perfect forms appear lifeless, they suggest life because they "grow" and move (Cheetham, 2010, p.251).

The crystal's analogy has powerfully also been used in art by Wassily Kandinsky, Wilhelm Worringer, Paul Klee, Alois Riegl (Cheetham, 2010). The crystal affords a discussion of movement and structure. Moreover, the genesis of form in crystals moves from the inside to the outside, allowing to speak of a productive intensity.

Laban refers to his work as a scientific endeavor in his later texts, i.e. those written during the English period. But what kind of science is Laban referring to? 'At the beginning was the deed' (n.d., L/E/26/47) is a text of Laban's latest production, considered the author's engagement with quantum physics and topology and considering it is a typewritten source. It is of interest here because it provides an answer to Laban's relation with the sciences and further clarifies aspects of Laban's Graphic Philosophy. Laban condenses in this text, under the umbrella of Goethe's saying 'At the beginning was the deed', taken from *Faust*, a philosophical and scientific approach that betrays his processual, one might say, pragmatic approach to the world, besides his knowledge of a series of notions in the scientific, philosophical and artistic fields.

Referring to Goethe's focus on action's primacy, Laban explains how the poet and scientist preceded what he calls 'the new physics' by centuries, new physics that, in Laban's words, "declared 'action' as the last element which can be found out" (*ibidem*). "Modern physics teaches us", Laban explains,

> that apparent stability of a given chemical atom or molecule is an illusion' thanks to 'thousand of single quarts of action [which] are concerned in its existence (*ibidem*).

Overwhelmed by the insecurity that process allegedly creates in us, we put up 'barriers', such as the a priori categories of space and time. Contrary to these a prioris, it is instead a method "speaking the rhythmical language of the dancing universe"[28] that is needed in a scientific approach.

In order to think of the relationship between movement and science, Laban calls then for a 'new kind of mathematics' (n.d., L/E/26/47), opposed to a mere metrical one. This 'new' mathematics should treat 'not the concept of magnitude, but the concept of living form (motor-form, effort-shape) as its subject matter' (*ibidem*). Around the year 1950 Laban started experimenting with topological forms, and in general, thanks to his pupil, mathematician Sylvia Bodmer, he explored topology as that 'new science' in which magnitudes "merged into qualitativeness as, e.g. directions into the tectonic reality of lemniscates, knots, etc", and in which in absence of matter "there is no space and no time" (*ibidem*). In particular, it is the movement and rhythm deflected by the body that for Laban here evolves in topological fields, such as "lemniscates and knotted bands of space-plans"[29] (*ibidem*).

In the text of a lecture-presentation also aided by the projection of drawings and models and this time written in French, something that helps locating it likely in 1937,

[28] Laban refers here the intuition as methodology, something that, again, resonates with Bergon's philosophical approach. Although, as already stated, the aim of the thesis is not to operate a comparative study of Laban's and Bergson's philosophies, it is nevertheless interesting to note that Laban's debt to Bergson and generally the connection between the two authors bears plenty of potential for further research. See the Further Work section of Chapter 7.

[29] As noted by Salazar-Sutil (2013) Laban utilises the topological form of the lemniscate interchangeably with that of the Mobius Strip. As Salazar-Sutil (2013) and Longstaff (1996) also note, and as the material in the thesis shows, Laban was using the lemniscate to materialise the continuum between mind and body, inside and outside.

considered that Laban rarely writes in French, Laban speaks of the relation between a particular topological form, the lemniscate, and the body. Laban states that movement doesn't form in a manner of a circle, but is more akin to a lemniscate. He defines the latter as follows:

> A lemniscate is a tape of movement, or the inside and outside alternate; that is to say: if we trace a line of movement along this tape we obtain a path that, in relation to this line, affords to move partially in the concave, partially in the convex direction. This lemniscate interests us particularly,

continues the author,

> because we find it in the anatomic construction of the body (…) specifically in the limbs. The forearms, the legs allow for movement similar to those of the helix of an airplane, creating in this way a certain force, a torque. Because not every movement will need this kind of energy expenditure, these studies are important for research into muscular tension and dynamics of force and because the spatial influence of these forms causes accelerations and slowdown and are therefore the cause of rhythm (L/E/5/1. My translation).

What should be noted here is not much how Laban thought of the body as topological, but how movement and rhythm, moving topologically in the guise of a lemniscate, depended on it. It is the body here that is a topological field and rhythm that derives from how this topology behaves. In particular, it is through tension (of the limbs) and changes in speed that rhythm is born. The lemniscate is also interesting for Laban because

> it doesn't offer a stand point in his [sic] middle, in his [sic] surrounding or in his [sic] surface (…) which allows us to show exactly an "inside" or "outside" and to have the appropriated feeling of finished end (Laban, n.d., L/E/25/24).

In this sense, it is adequate to express movement in its constant flux and the capacity of movement to blur the boundaries inside/outside, intensive, extensive (see Fig.17-18 below).

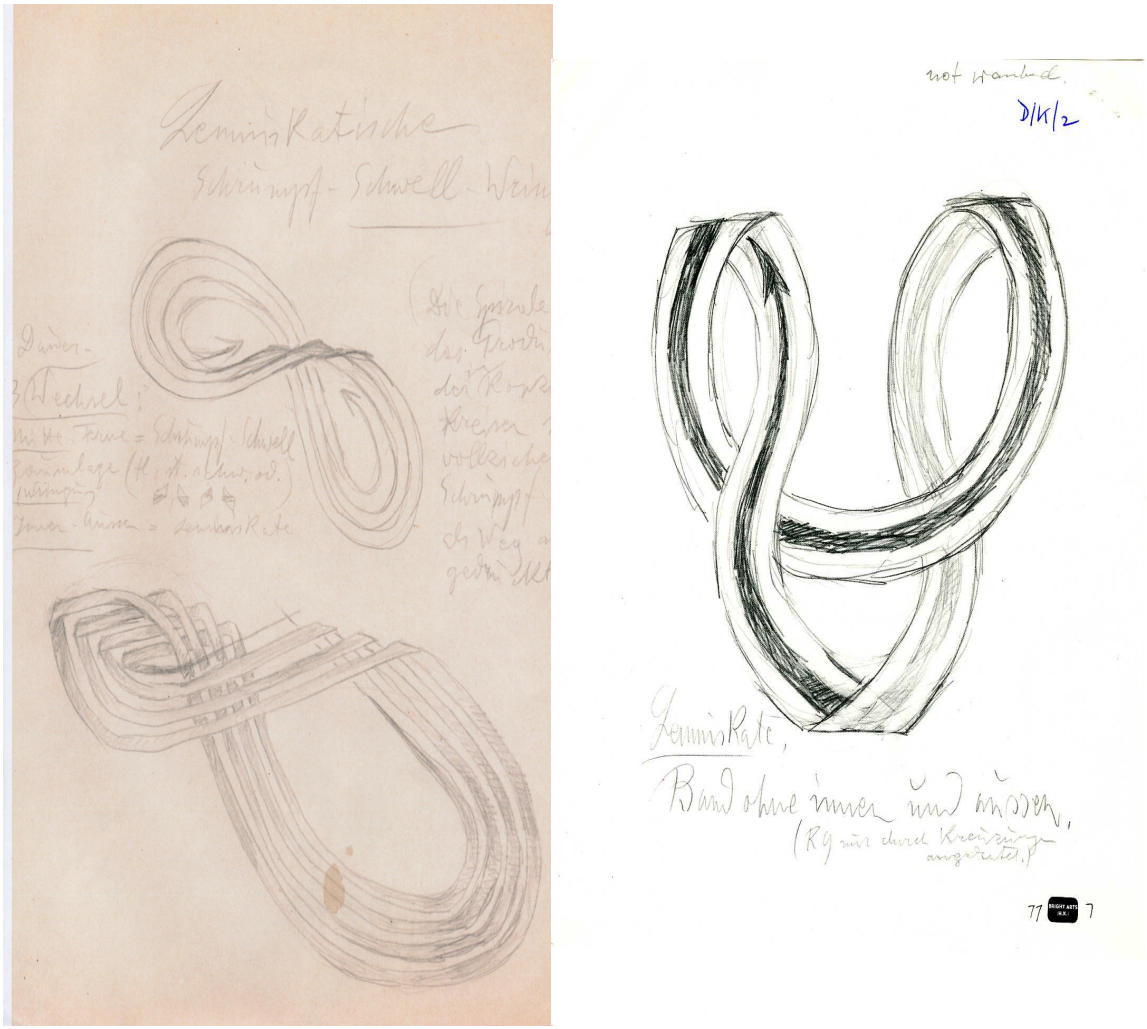


Fig .17-18: Topological Explorations. For sources see Table of Figures pp.6-10.

As we've seen above, Laban, at least in his last period, looks at both quantum physics and topology in order to further his understanding of movement. In order to better understand this scientific basis of Laban's philosophy and practice, it is the dynamic of alternation between intensive and extensive space that will be the focus of the next section.

As a start, one must lay down the postulates of a system that is concerned with intension and extension. This will be a system, as Manuel Delanda explains (2002), that owes

some of its fundaments to a vision of science that focuses on quantum physics on the one side and topology on the other side. Moreover, it will partake of an ontology that is processual. A process ontology discards essences in favour of dynamic flow, something that strongly resonates with Laban's approach. Moreover, as we have seen, Laban was using both quantum physics and topology in his work in the last period of his life and this makes it possible to speak of the relation of intensive to extensive space in Laban's English years.

Laban definition of topology is standard. He maintains that it is a very fundamental branch of mathematical science that investigates non-metric spatial relationships and therefore

> deals with properties of position, which are not altered by the size or shape of the object in which such properties are present. Such properties remain the same', he concludes, 'in spite of any stretching or bending of an object (n.d., L/E/56/10).

Similarly, the structure and function of the body does not follow primarily metrical rules, for Laban, 'the properties of its functions are positional and are independent of the size and shape of the body' (*ibidem*). Laban is here speaking of intensive properties, which cannot be metrically understood. He refers to effort's motion factors saying that they are "in the first instance qualitatively and not quantitatively selected and united. It is this selective synthesis, which typifies the effort made by living beings" (*ibidem*).

Topological forms, in a genesis of physical forms and of actualisation of intensities as found in the theory of dynamic systems, give rise to geometrical forms. Contrary to the relation of ideal form to particular one, as found in Platonism and the Enlightenment, the dynamic between intensive and extensive space is one of emergence and expression based on difference. This is because, as Delanda explains,

> intensive differences are productive (…) wherever one finds an extensive frontier (for example, the skin which defines the extensive boundary of our bodies) there is always a process driven by intensive differences which

> produced such a boundary (for example, the embryological process which creates our bodies) (Delanda, 2005, p.81).

Similarly, Laban's geometrical constructs should be seen in direct dialogue with the intensive forces from which they originate, as will be shown in the next chapter. For Laban the intensive space of the movements of effort, gave rise to extensive movements as seen in action. However, contrary to the view that "drawings and diagrams are a somewhat limited medium" (Salazar-Sutil, 2013, p.18) for Laban in the expression of intensive movements, his interest and consistency in utilising different types of graphic inscriptions and his dismissal of alternative technological tools, such as film (see Chapter 2), shows the extent to which Laban believed they were particularly functional as a methodology.

Mapping Intensive Movement

If it is true that Laban's main concern was movement and the creation of a language and methodological tools that would express it, it is also true that he saw movement and space as interrelated. The space Laban refers to, then, should always be thought of as "an aspect of movement" and therefore not a Newtonian space, but rather a topological (that is, relational and intensive) space. We find indeed that in his writings the movement theoretician kept utilising a topographical language in order to map-out his thought. Maps are inherently connected to movement and are expressions of relations. "The map speaks to how we spatially organise our surrounding space and, by extension, how we organise our thoughts", argues Jakub Zdebik, "It does this by being generative – it creates new vistas instead of simply representing what is already there. And being connective", he concludes, "is part of its function as a conceptual tool" (2012, p.11).

In an unpublished manuscript held in the Laban Achive in Surrey, this cartographical or topographical aspect of Laban comes to the fore. In a 'Preface' to what was one of the many publications Laban was working on in the last period of his life, some of which to date unpublished, and entitled 'Space Within the Soul' (L/E/23/10) the author's topographical thinking is evident. Laban's reference to 'soul' hints here to the affective, effort-related aspect of movement, which he studies in his Eukinetic theory. Laban begins his text by expressing his dismay about the ways in which 'the space within the

soul', this "new territory", has so far been explored and professes his lack of interest in speculating on the philosophical dimension of the soul:

> And so it is also with the topographing of the space within the soul. The description of the place and the life or movement within it is already difficult enough to undertake even without being complicated with questions about its origins or its future (n.d., L/E/23/10).

What is particularly interesting in this excerpt is Laban's use of the term 'topographing': in the original manuscript the word 'topography' was indeed deleted in favour of 'topographing', which indicates the action of writing space. It seems that Laban was consciously mapping what he refers to as the inner space of the soul through a graphic practice, and integrating movement, as in his use of the present continuous tense, into this attempt. We can speak of topological practice because it pertains to discourses on the nature of space, as the etymology of the word expresses. In the next section of the text Laban proceeds to explain the relation between space and movement. "Space is of course nothing without something standing, moving, growing, changing in it", he argues,

> and it seems to be true for all the aspects of space, so also that within our souls. The question 'what was first: the chicken or the egg?' applies perfectly to our subject. Was space first or something which fills it in neverceasing [sic] movement? (…) The practical mystery is how to name the semicircle from the egg to the chicken and its other half from the chicken to the egg? Or in our case: from space to the movement filling it and from movement to space? I decided to call it space and space-movement, but there is no obstacle to call it movement and movement-space. It is, as so many things, a question of taste (*ibidem*).

What emerges from this section is that Laban saw the dynamic aspect of space as the other side of the coin of the spatial aspect of movement. What also comes to the fore is his way of thinking this relation in geometrical form: he speaks indeed of the 'semicircle' connecting movement and space. Moreover, he connects this geometrical aspect to a 'practical mystery', something, then, to be explored by practicing with

models. This can be said, then, to be an outline of Laban's relational and dynamic space, which he aimed at investigating through diagrammatic praxis.

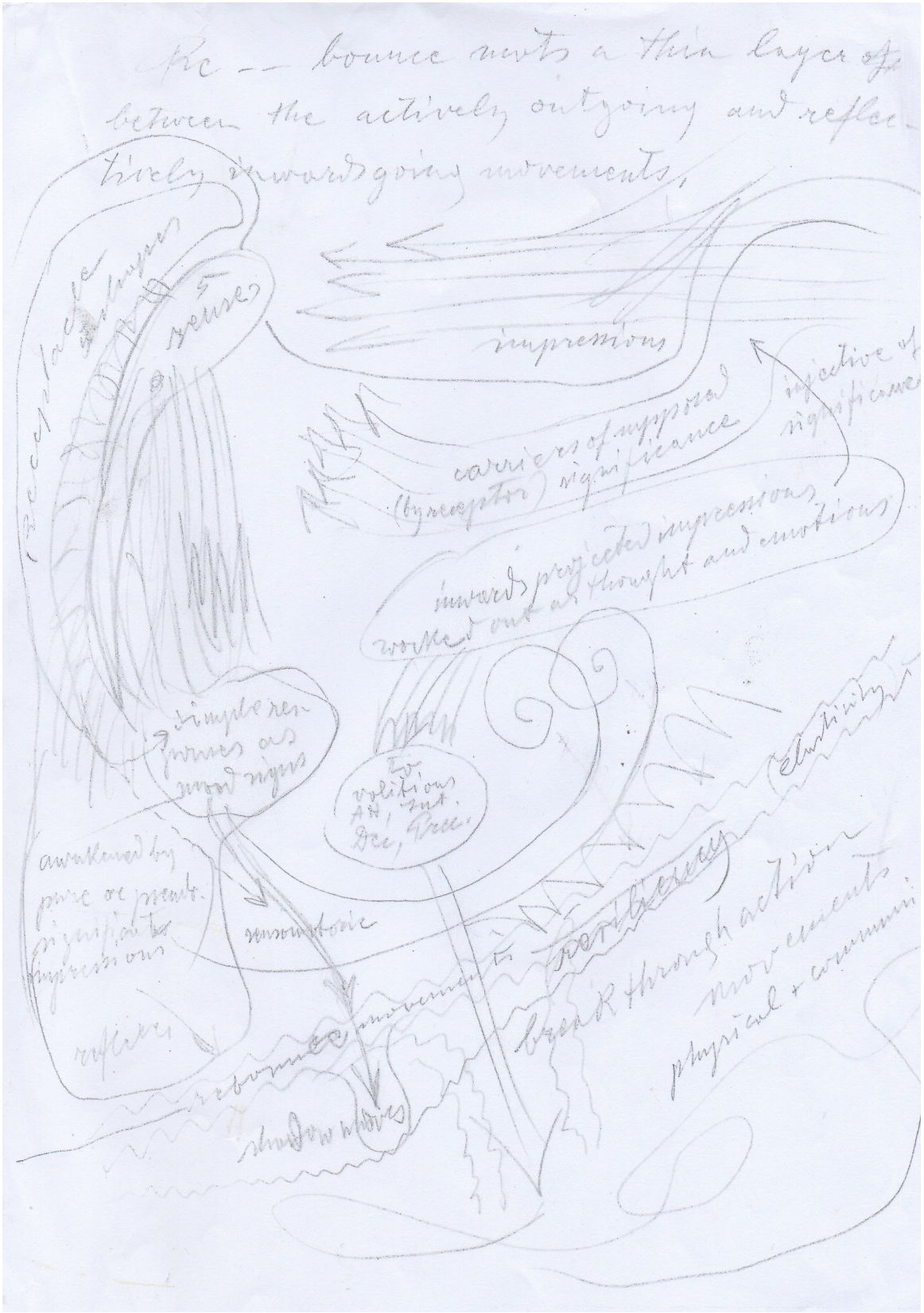


Fig. 19: Mapping Intensive Movement. For source see Table of Figures pp.6-10.

In Fig.19 above found in the midst of Laban's notes, the author maps the exchange between inner and outer, intensive and extensive movement. He focuses particularly on the intensive process of filtering of impressions and the ways in which this might end up determining action. This is the map of the inner territory of effort. The course of action starts as a follow up of previous action with impressions reaching first the five senses and what Laban here calls the 'receptacle of the five shapes'. These are presumably the five Platonic solids, suggesting that Laban thought of them as making part of the intensive compound generating knowledge and action, as well as the extensive shapes of movement. From here the movement continues turbulently, chaotically, indistinctly towards the bottom left of the page where it separates in different strands. Some movement instigates 'simple responses as mood signs, awakened by pure or pseudo-significant impressions'. This gives rise to 'reflexes'. This sensomotoric aspect manages to trespass the porous boundary of inside/outside passing through another indinstinct zone where Laban locates 'rebounce movements' and to be expressed in 'shadow moves'. Laban describes these as 'tiny muscular movements (…) usually done unconsciously [that] often accompany movements of purposeful action like a shadow' (Laban, 1950, p.12). In his last manuscript, *Effort and Recovery*, Laban states that "The struggle between shadow-moves and functional action is one of the most interesting subjects for the movement observer" (Laban, n.d., quoted in North, 2011, p.258). Marion North explains that "there are many references to shadow moves in *Effort and Recovery* where [Laban] is particularly interested in the tension between outward and inner behaviour" (2011, p.261). This tension is what is expressed in this map.

Laban writes on the top of the page: "Re-bounce meets a thin layer between the actively outgoing and reflexively inwards-going movements". It is this thin elastic and resilient layer, which loosely contains moves that are the result of moods, that don't have the strength and decision to break through towards action. They extend but are recaptured towards the inside. Instead of heading towards the extensive plane, some impressions are projected inwards and are 'worked out as thought and emotions' and give birth to conscious 'volitions, attentions, intellect, decision and precision'. As highlighted by a direct thick arrow decisively cutting across the layer, these aspects of consciousness materialise into 'physical movements and communication' and are the ones that result in action. This map provides an incredibly vivid clue of how Laban thought of movement

in its intensive state and in its process of extension. Process is here expressed by dynamic vectors and arrows travelling through the space of the page, creating it anew: this is for Laban a presentation of a four-dimensional process embodied through vortices, changes of direction, dead ends and blurred, chaotic areas.

The diagram

> "Mathematics is highly abstract, that means abstracted from physical happenings, while dance is insofar most concrete as it embodies mathematical rules and thoughts into the visible movements of beings. One would be almost tempted to say that mathematics is the abstraction of invisible movements within the brain, while dance makes these movements geometrically visible in very similar form as mathematics become visible in crystallised matter" (Laban, n.d., L/E/19/64).

The features that Laban sees as pertaining to his forms and drawings dealing with both intensive and extensive movements (such as their capacity to retain and express bodily movement) and that commentators have attributed to Laban's use of his drawings (such as their heuristic nature), have been identified by thinkers of different philosophical currents with the notion of the diagram.

Diagrams, maps and cartographies are currently being researched in various fields with the aim of defining a 'diagrammatics' (Kraemer, 2010) or 'diagrammatology' (Mitchell, 1981; Stjernfelt, 2007) and mostly as part of what has been called an 'iconic turn' (Kraemer, 2010). There is a growing interest in diagrams and diagrammatics in the Humanities and Social Sciences today as can be evinced by recent publications (Knoespel, 2000; Kraemer, 2010; Mullarkey, 2006; O'Sullivan, 2012; Pietarinen, 2010; Pombo and Gerner, 2009; Rotman, 2012; Stjernfelt, 2007; Watson, 2009; Zdebik, 2012) and emerging specialised research communities (Diagram Research, Use and Generation Group, London; Notational Iconicity Research Training Group, Freie Universitaet Berlin; Research Group Science and Art, "Image in Art and in Science" project, University of Lisbon). Caught in the middle of a 'spatial'- (Doering and Thielmann, 2008), 'iconic'- (Kraemer, 2010), 'corporeal'- (Sheets-Johnstone, 2009) and, one might say, 'liquid' (Bauman, 2000) – turn(s), the diagram seems to express a contemporary concern with the relation of structure to form, something at the core of debates about Modernity and Post-Modernity (Connor, 1989; Jameson, 1991) and of Laban's work.

However, scholars are far from agreeing on a definition of diagram and on what a diagrammatics, intended as a science and philosophy of diagrams may look like.

In the field of media theory, diagrammatics is seen primarily in two ways. John Mullarkey's *Post-Continental Philosophy: An Outline* (2006) advocates for diagrams to be devices that immanently express thought through an analogical process. It is the performing of the action of drawing here that not only entails thinking but also is thought in its moving lack of essence. Instead Sybille Kraemer and Frederik Stjernfelt, advocate for diagrams to be points of linkage between two different realities, maintaining, therefore a transcendent point of view. This is a view of diagrams that highlights their potential to act as scientific and semiotic devices. The above distinction is not as clear-cut as it might seem at a first glance. As science normally pertains to the discrete and quantifiable and art to the qualitative and unquantifiable, what the diagram allows, in its encompassing both, is for a conjunction between the two. For this reason diagrams are currently being investigated both in terms of their potential for rationalisation and organisation and for their heuristic, creative aspects. Philosophical literature on diagrams and diagrammatic explored in relation to Laban in this chapter focuses on the works of logician Charles Sanders Peirce, French philosopher Gilles Deleuze and French mathematician Gilles Chatelet. This is because Peirce, Deleuze and Chatelet have all given ample space to the concept of the diagram and diagrammatic in their work and they exemplify different although contiguous ways to theorise and practice diagrams.

Charles Sanders Peirce's writings dealing with diagrams and diagrammatic reasoning were individuated among his Collected Papers and, in line with other studies focussing on the diagram in Peirce's thought, it was decided to focus in particular on his *Prolegomena to an Apology of Pragmaticism* ([1906] 1933). It has been chosen to focus on Gilles Deleuze's book on the notion of the diagram in its visual, rhythmic and haptic aspects ([1981] 2003) and his lectures on the same subject ([1981] 2007) and Gilles Chatelet's work on diagrams (1993). Current literature on the subject both from the Peircean and the Deleuzian perspectives has been explored both in English and German language. The works of Sybille Kraemer, John Mullarkey and Susanne Leeb have been found to be particularly useful in clarifying Laban's diagrammatics and its contribution to current debates.

Because of the widespread use of diagrams in different disciplines, it would be beyond the aim of this chapter to give equal voice to all. A cognitive approach to diagrams will then, for example, be overlooked. In this respect, the work of Jeffrey Scott Longstaff on Laban's Choreutics and what he calls 'kinaesthetic spatial cognition' has already highlighted possible intersections between Laban's theories of space and a cognitive approach (1996)[30].

A diagram is commonly defined as "a simplified drawing showing the appearance, structure, or workings of something" (OED). However, depending on one's area of interest, diagrams can look different and have different functions. A mathematician may think of a Venn diagram; an architect may think of a sketch-like diagram; a physicist may think of a 'free body' or 'kinematic' diagram; a philosopher, as we will see, may think of the diagram and the diagrammatic as concepts. So, we might ask: what, if anything, do these diagrams have in common? How can they all be subsumed under the umbrella concept of the 'diagram'? In what sense can Laban's 'moving forms' be said to be diagrammatic?

There are mainly two approaches to diagram theory 1) that highlighting the heuristic aspect of diagrams in relation to their ability to afford thought, something which semiotician C.S. Peirce and his commentators, such as Frederik Stjernfelt and Sybille Kraemer focus on, 2) that highlighting the capacity of the diagram to express creative process, deriving from post-structuralist philosopher Gilles Deleuze and his commentator John Mullarkey. In addition to these two, a third way to think of diagrams has been proposed by the mathematician Gilles Chatelet, who looks at the embodies aspects of science's diagrams in terms of 'crystallised gestures'.

A survey of the archive material and of Laban's notational systems has highlighted how Laban elaborated a complex and diverse 'diagrammatics', which resonates with aspects of the three highlighted above. This makes his work unique, in ways that will be explored in the next chapter.

[30] A cognitive approach to Laban's diagrams may be useful in assessing the diagrams potential to produce a kinaesthetic reaction in the viewer. The kinaesthetic aspects of cognition are currently being investigated in 'enacted cognition' approaches (Noe, 2009), a development of the 'embodied cognition' approach of Lakoff and Johnson (1999). Studies in this field are also exploring the possible connection between cognitive and phenomenological paradigms by looking at the philosophy of Maurice Merleau-Ponty and Edmund Husserl (see debates on 'naturalising phenomenology').

In putting together different philosophical frameworks the aim is not to level down the difference they evidently manifest. Peirce's approach implies, for example, a dualism between mind and matter, between subject and object, although the two are, for the author, indissolubly related, something he expresses in his concerns with the continuum, as explained by Stjernfelt (2007), and something that will constitute the heritage of later 'pragmatic' thinkers, such as Dewey. Therefore, Peirce's reality, although one seen as in continuous process, can be said to be a dualist process ontology which differs, for example, from Deleuze's monist pluralism. For Deleuze, indeed, the very concept of the humanist Subject is to be discarded and together with it, that of mind and matter as two possibly separated entities. Deleuze's philosophy of immanence looks at virtual and actual not as transcendent and real, but as two aspects of reality, which are in a continuously changing relationship, where virtual and actual 'give birth' to each other partaking of the same 'plane of immanence'. Peirce's and Deleuze's approaches to the diagram have been seen as complementary (Leeb, 2011). If Peirce's approach can be seen as more 'representational' and scientific because based on a duality of thought and matter, Deleuze's immanent approach and his lack of division between art and philosophy is more suitable for an engagement with diagrams from an artistic perspective. More considerations on this will follow from an exposition of the two authors below.

Charles Sanders Peirce

Semiotician Charles Sanders Peirce gave a first and major insight into diagrammatic reasoning. Although analysing Peirce's system *in toto* would divert me from the main aim of this section, which is exploring his theory of the diagram, a brief description of the basic notions of his philosophy will be helpful to contextualise the recent interest in diagrams arising from Peirce's followers and to analyse Laban's use of diagrams. Peirce is commonly recognised as the co-founder, together with Ferdinand de Saussure, of semiotics. Semiotics, defined as the study of signs and the meaning deriving from them, started with the work of Peirce at the beginning of the twentieth century, but it was initially adumbrated by what has been called the 'glottocentrism' of the twentieth century (Cobley, 2010, p.3). However, as semiotician Paul Cobley rightly argues, semiotics remains important today, because of its focus on the pre-verbal and non-verbal aspect of communication in both humans and, more widely, the natural world. "To

know", Cobley argues, "that the faculty of the nonverbal is shared with animals and plants offers opportunities to any analysis where nonverbality is in any way a factor" (2010, p.4). It is well known that Peirce's work differs from Saussure's (and his followers') in that to the pair 'signified-signifier' he opposes the triad 'representamen-object-interpretant'.

Moreover, contrary to Saussure's 'glottocentrism', Peirce does not think of language as the only or pivotal sign system through which all meaning and cognition necessarily have to be filtered (Cobley, 2010, p.8). These two points, i.e. semiotics' stress on the meaningfulness of the 'reality' and its understanding of meaning as pre-verbal are both aspects which find their expression in Laban's thinking and open up a space, therefore, for a fruitful cross fertilisation of ideas between the two authors.

Peirce's philosophical system shows a marked 'trichotomy' (Peirce, [1890] 1960, p.182). "I am forced to confess", says Peirce in his *A Guess at the Riddle*, "to a leaning to the number Three in philosophy" (*ibidem*). Peirce's triadic system is characterised by notions of Firstness, Secondness and Thirdness, where Firstness has an element of vagueness and represents a potential continuity, Secondness expresses an element of actuality, of *incarnation* and Thirdness real continuity[31]. What is more pertinent to an understanding of the role of the diagram in Peirce's work lays in his well-known distinction of signs in Icons, Indexes and Symbols. Peirce states that

> There are three kinds of signs which are all indispensable in all reasoning; the first is the diagrammatic sign or *icon*, which exhibits a *similarity or analogy* to the subject of discourse; the second is the *index*, which like a pronoun demonstrative or relative, forces the attention to the particular object intended without describing it; the third [or *symbol*] is the general name or description which signifies its object by means of an association of ideas or habitual connection between the name and the character signified ([1890] 1960, p.195. My italics).

[31] Firstness' continuity is an "experience of the infinite density and continuous variability of qualia" (Stjernfelt, 2007, p.56) and Thirdness' continuity is, instead, "less pure, because intermingled with Secondness" (*ibidem*).

Furthermore, Peirce describes Icons, of which diagrams are a sub-division, not as referring to objects "in looks": "it is only in respect to the relations of their parts that their likeness consists" ([1902] 1960, p.159). Peirce argues, moreover, that the decisive test for iconicity is that "by the direct observation of it other truths concerning its object can be discovered than those which suffice to determine its construction" ([1902] 1960, p.158). The main difference for Peirce between a sign and an icon, then, is the latter's *heuristic* nature. Following the above partition, Icons are subdivided in Images, Diagrams and Metaphors. Images represent objects through simple qualities, diagrams represent objects through the *skeleton-like sketch of relations* and metaphors represent objects by referring to something else.

Peirce's Concept of the Diagram: Relation, Observation and Manipulation

Peirce's concept of the diagram is laid down primarily in *Prolegomena to an Apology of Pragmaticism* ([1906] 1933). In this work, first published in the philosophical journal *The Monist* in 1906, Peirce proceeds to expose his "system of diagrammatisation by means of which any course of thought can be represented with exactitude" (p.411), that is, his reduction of algebra to the system of Existential Graphs. In the first section we find a witty and pointed description of what he means by diagram. Of interest here is the way in which, consequently with his pragmatism, Peirce doesn't only provide a 'static' definition of diagram, but he explains the diagram through a tale, which speaks a dynamic and corporeal cartographic language.

Peirce imagines a primary objection to his project of diagrammatisation of thought, an objection that casts doubt on the value of the project itself. "But why do that, when the thought itself is present to us?", he makes his imagined interlocutor, a general of the army, ask. If the choice of a general may seem bizarre at first glance (could he indeed not have chosen a more 'philosophical' opponent?), the reason for this preference becomes clear in the subsequent text. Peirce proceeds to ask his interlocutor whether maps are of any use during a war campaign, since the territory they represent is 'present' right in front of the general's eyes. The latter in turn states that maps are indeed useful not only because they represent a territory, but also because, tactically-wise, one can "stick pins into [them], so as to mark each anticipated day's change in the situations of the two armies" ([1906] 1933, p.411). "Well, general", Peirce's replies, "that precisely corresponds to the advantage of a diagram (...) Indeed, just there, where you have so

clearly pointed it out, lays the advantage of diagrams in general" ([1906] 1933, pp.411-412).

Peirce identifies this advantage in the capacity of the diagram to allow for hands-on experimentation. He also states that whilst experimenting "one must keep a bright lookout for unintended and unexpected changes thereby brought about in the relations of different significant parts of the diagram to one another" ([1906] 1933, p.412), highlighting in this manner the unique capacity of diagrams to expose relations. "For what is the Object of Investigation?", Peirce asks rhetorically. "It is the *form of a relation*" (*ibidem*. Italics in the original). Peirce moreover argues that experiments with diagrams do not differ from experiments on Objects of Investigations, because experiments on diagrams, be these "external or imaginary" are equal to experiments on real things in that both deal with structures of relations ([1906] 1933, p.412 and p.414). It is important here to note that Peirce speaks about thought experiments as much as visual diagrams. Considering Laban's material, it is the visual diagram the one that will be of interest for the analysis in the next chapter.

In his *On the Algebra of Logic: A Contribution to the Philosophy of Notation* (1885) Peirce goes so far as to argue that:

> Icons are so completely substitutions for their objects as hardly to be distinguished from them. Such are the diagrams of geometry. A diagram, indeed, so far as it has a general signification, is not a mere icon; but in the middle part of our reasonings we forget that abstractness in great measure and the diagram is for us the very thing (Peirce, 1885, p.163).

Peirce affirms then that the difference between the iconic diagram and the 'real object' can be overlooked as long as the diagrammatic Icon partakes, as it does, of the skeleton-like relations of the object. It is the isomorphism of relations between diagram and object what makes it possible to speak of diagrammatic thinking. Partaking of the quality of 'Secondness', icons, and among them diagrams especially, are for Peirce the very cornerstone of logical reasoning. Indeed he affirms that

> Icons are a requisite for reasoning. A diagram is mainly an Icon, and an Icon of intelligible relations (…) an Icon of the forms of relations in the constitution of its Object (Peirce, [1906] 1933, p.415).

In another fragment Peirce goes as far as to claim that "All necessary reasoning without exception is diagrammatic" ([1902] 1960, p.212). On this basis, in his *Diagrammatology* (2007) Stjernfelt advocates for an 'iconical realism' and an 'iconicity in thought' (p.xiv) against what he sees as the dismissals of and scepticism about iconic representations by both humanities and sciences in the last 150 years (p.xxi). In order to discuss the value of diagrams for reasoning processes, Stjernfelt focuses on the non-trivial operational account of icons. The icon becomes then "the only sign by the contemplation of which more can be learned that lies in the directions for its construction" (p.90) 'the decisive test for iconicity rests in whether it is possible to manipulate the sign so that new information as to its object appears; (*ibidem*). However, as also Peirce notes, this definition of icon and, with it, of diagrams is employed "in a wider sense than is usual" (Peirce, [1906] 1933, p.315). It can be said, as Finnish philosopher Pietarinen maintains, that this definition of diagram is too broad and vague and doesn't work well as a concept (2008). As noted by Woepkin (2010) diagrams can be defined in a broad or narrow way and definition can be anchored in the diagram as graphic bi-dimensional device or become more abstract or more general, as in Stjernfelt's case. In the case of this thesis, the concern will be with visual, graphic diagrams.

In 'Moving Picture of Thoughts', a chapter of his *Diagrammatology*, the Norwegian philosopher underlines a difference between pure and empirical diagrams. Pure diagrams, such as, for example, Euclid's geometrical diagrams, are devoid of secondary references to reality; empirical diagrams, such as maps, express not only relations, but also refer to real experience. However, Stjernfelt explains, both work in the same way, that is, iconically, and argues for the operational account of diagrams to overcome similarity, intended trivially in its visual connotations, by highlighting a heuristic and 'manipulative' dimension to diagrams. This in turn stresses their capacity to afford thinking and explain Peirce's remark above.

Diagrams or diagrammatic reasoning are connected with 'schematism': a central issue in the philosophy of Kant, whom Peirce addresses in his writings as "that hero of

philosophy". The schema, that is, the device through which Kant attempted to bridge the divide between sensibility and intellect, assumes importance in the moment in which we try to describe the way in which knowledge is at all possible in the dualism of *res cogitans* and *res extensa*. Sybille Kraemer's argument for the continuity between mind and reality allowed by the line, intended as that, which both divides and connects, starts from a Peircean understanding of the diagram and the Iconicity of thought and repurposes the underlying issues raised by schematism. "Diagrammatic inscriptions," she claims,

> among which we include graphic artefacts ranging from notations to diagrams and maps, are media that provide a point of linkage between thinking and intuiting, between the 'noetic' and the 'aesthetic'. By means of this interstitial graphic world", she proceeds, "the universal becomes intuitable to the senses and the conceptual becomes embodied: the difference between the perceptible and the intelligible is thus at the same time bridged – and constituted (Kraemer, 2010, p.13).

In her attempt to bridge the intellect and sensibility Kraemer, following Peirce, attempts to connect, to relate and to undermine the idea of purely linguistic and representational act of cognition. However, she, as Peirce, maintains a transcendent and representational paradigm founded on identity and the search for a scientific truth. Media theorist Sybille Kraemer takes diagrams in their bi-dimensional graphism (from image, to notation to writing) as points of linkage between the noetic and the aesthetic. She advocates for a graphism and epistemology of the line as that which connects two otherwise separate realms. In regards to the capacity of diagrams to act as 'bridges' to another intelligible but not perceptible reality, she refers to them as an 'interstitial world (…) enabling [the] movement of thought' (2010, p.18). The stress of her notational iconicity approach lies in the blurring of the difference between iconicity and discoursivity allowed by thinking of the two as on a continuum allowed by diagrams which "are images that make assertions, and thus can be right or wrong" (p.30). Furthermore, she refers to diagrams as 'transcriptions', 'manuals' and 'machines of translation' (*ibidem*), which operate as 'cultural techniques'. Performance studies scholar Gabriele Brandstetter's interest in notational iconicity relates, in her writings, also to dance notation specifically. In particular, she speaks of Dance Scripts as choreo-graphics, that is, systems of

arrangement (Brandstetter, 2005, p.91). She claims that dance notation allows for an 'analytical moment' to arise and that they allow to read 'the operational and performative aspects of a transmission in movement and to actualise it into practice' (*ibidem*).

Gilles Deleuze

In a series of lectures held at the Vincennes University (Paris) between 31st of March and 2nd of June 1981 French philosopher Gilles Deleuze focussed on the concept of the diagram in painting ([1981b] 2007). Deleuze states here that "diagram is a notion that has gained a lot of importance in contemporary English logic" (p.44), something that refers directly to the popularity that Peirce's philosophy of the diagram was enjoying at the time. Deleuze refers to Peirce, indeed, in trying to define the concept of the diagram and, in particular, the 'pictorial diagram'.

In 1981 Deleuze would also publish his well-known book on the English painter Francis Bacon ([1981] 2003), in which he furthers the analysis of the pictorial diagram[32]. The relation of the concept of the diagram to the philosophy of Gilles Deleuze was recently explored by Zdebik in his *Deleuze and the Diagram* (2012). The author traces here the birth and development of the concept of the diagram in Deleuze's *ouvre* and successfully argues for the centrality of this concept in the philosopher's thought. He shows how Deleuze borrows the concept of the diagram first from Michel Foucault and how he develops it in relation to art in his book on the painter Francis Bacon. This is also, as Zdebik explains, the book in which the diagram, this abstract yet real device, becomes more visible, although maintaining its virtual character. For this reason, Deleuze's 'logic of the diagram' as articulated in his book on Francis Bacon and in his lectures on the same subject will be the main focus of this section. Although still an 'asbtracting mechanism' (Zdebik, p.178) here as well, and therefore still 'out of sight' (*ibidem*), it is possible to better understand the mechanism of the diagram in these texts in relation to pictorial art. However, attention will also focus on the diagram as 'style', as piloting set

[32] Previously, in *A Thousand Plateaus* ([1980] 1988), one of Deleuze's books with the activist and 'schizo'-analyst Felix Guattari, the workings of the 'diagrammatic' are also exposed, as in his 1986 book on Michel Foucault ([1986] 2006), which, as Zdebik notes, proposes a development of an early article written in 1975. These ways of discussing the diagrammatic were not taken into consideration because of the focus of the thesis on the visual diagram.

of virtual relations informing and deforming the representational visual field of the painting.

Deleuze's Diagram: Modulation, Figure and Deformation

In his first lesson at the Vincennes University entitled 'The germ and the catastrophe: Introduction to the pictorial diagram'[33] Deleuze starts by interrogating himself on how painting may contribute to philosophy, or, rather, what might be the relation of painting to philosophy. In order to proceed, Deleuze postulates that painting has a particular relation with the notion of catastrophe ([1981b] 2007, p.22), which the other arts do not have, or at least not in the same way. His examples will be Turner, Cezanne, Van Gogh, Klee and the modern English painter Francis Bacon. Deleuze argues that the 'catastrophic' paintings of these artists "generalise an experience of unbalance, of things that collapse, of falls" ([1981b] 2007, p.23). However, the catastrophe that Deleuze individuates as category of painting is not just the representation of natural disasters. He seeks to speak about a notion of catastrophe which gives birth to the act of painting itself and further argues for this catastrophe to be inseparable from birth itself, from the notion of germ ([1981b] 2007, p.25).

There is a state before painting, a pre-pictorial moment: Deleuze speaks of this stage, following Cezanne's prose, as a chaotic one. However, he warns the painter against allowing chaos to dominate entirely:

> [Everything] comes from chaos, but if chaos takes everything, if chaos continues being chaos, the planes fall one on top of each other instead of falling vertically. The painting is ruined before having started it ([1981b] 2007, p.31).

There is a first moment, then, which is composed of two aspects: "the abyss of chaos" and its subsequent product, which Deleuze individuates as "planes, frames, geology" ([1981b] 2007, p.33).

[33] The translation of Deleuze's lectures from the Spanish is mine.

The problem of the painter is thinking about the way in which the planes fall, trying to avoid collapse. The diagram becomes then the 'double notion' of catastrophe-germ, chaos-germ, "the unity from which rhythm and colour arises" ([1981b] 200, p.45)[34]. From the initial moment that we've seen, that is, the pre-pictorial, the diagram presents itself as a second moment, preceding the pictorial itself, the third moment. This is, for Deleuze, the 'logic of the diagram'. Inside this tripartite process, the diagram works as a "zone of removal, of cleaning" ([1981b] 2007, p.51) and as a "force of deformation" ([1981b] 2007p.72).

Deleuze proceeds then to articulate the characters of the logic of the diagram. He individuates five. Besides the first one that, as we've already seen, focuses on the diagram as being the necessary relation of the ideas of chaos and germ, the one which seems to be particularly relevant in relation to Laban is the one expressing the diagram's manual character ([1981b] 2007, p.91). This aspect of the diagram refers to the relation between the hand and the eye, the manual and the visual. Deleuze in this section is attempting a subdivision of ways in which this relation took shape in the history of painting. Besides the specifics of this categorisation, what is interesting for us in relation to Laban is the corporeal and experimental aspect of the diagram highlighted by Deleuze in this section. The standard relation of the eye to the hand, usually resembling that between a master and a slave, is here reversed: the hand that traces the diagram is for Deleuze's, an unleashed one, the hand of a painter which distorts the visual coordinates ([1981b] 2007, p.92) and, he argues, upsets the hegemony of the visual. There is, then, an ultimately 'manipulative', haptic feature of the diagram in Deleuze.

[34] From this passage we can understand that Deleuze thought of a relation of chaos to rhythm here as that of chaos to order. O'Sullivan defines the diagram in this respect as "rhythm emerging from chaos" (2009, p.255). In fact, Deleuze speaks of "rhythm as the essence of painting" ([1981] 2003, p.xv) and proceeds to claim that

> it is never a matter of this or that character, this or that object possessing rhythm. On the contrary, rhythm and rhythms alone become characters, become objects. Rhythms', he concludes, 'are the only characters, the only Figures. (*ibidem*).

So there are different rhythms for the philosopher, not only the 'rhythm as order' mentioned above and he refers to rhythm as "vital power" ([1981] 2003, p.30). Deleuze's co-author Guattari also mentions Ludwig Klages in one of his books (2011), something that allows for a historical connection with Laban, as we've seen in the previous chapter. Although this is not the place to analyse the relation of diagram to rhythm in Deleuze and in relation to Laban, this is a line of enquiry, which demands further research in the future. See Further Work section of Chapter 7.

Mullarkey explains Deleuze's 'haptic' as a "part-icipation rather than a presentation, a material belonging and becoming of one part in another" (Mullarkey, 2006, p.159) and he relates it to the concept of analogy. Deleuze speaks, indeed, of the "analogical language of the diagram" ([1981] 2003, p.82) and argues for analogy to find "its own language" by passing "through the diagram" itself (*ibidem*). However, the analogy that Deleuze refers to is not one based on similitude. Referring to Peirce in his lectures, Deleuze notes how the American philosopher worked on two types of similarity in regard to icons: similarity of quality (blue like the sky) and similarities of relations. The latter is represented in diagrams, which become, as we've seen above, icons of relations. However, for Deleuze, contrary to Stjernfelt's reading seen above, Peirce's analogy is based on identity and similitude (and it is called by Deleuze *analogia communis*), and can therefore not be maintained in a system based on difference, such as the French philosopher's one.

Deleuze maintains that there is more to be done with analogy and the analogical language of the diagram and the aesthetic analogy ([1981b] 2007, p.135). For Deleuze 'analogical language' is "made of movement, kinesis…is made of expressions of emotions, it is made of sonic unarticulated data" ([1981b] 2007, p.137) and is defined by modulation, so that the diagram can be defined as a 'matrix of modulation' ([1981b] 2007, p.145) in contrast to the matrix of articulation, which is identified with code. Deleuze also explains this in terms of music in relation to harmony and melody. Harmony is in this set up the convention, the code, and melody is the analogical language of the voice, working through modulation ([1981b] 2007, p.147). Important to note, the diagram is always particular, not a universal (which would imply a transcendent horizon): it is, in painting, the specific style of the artist. Of Bacon, Deleuze says that his particular diagram looks as follows:

> one starts with a figurative form, a diagram intervenes and scrambles it, and a form of a completely different nature emerges from the diagram, which is called the Figure (Deleuze, [1981] 2003, p.156).

The figurative is tight to representation and the delivery of similarity and meaning, so relies on the common use of analogy and similarity. Figure, instead, having passed

through the distorting action of the diagram, may appear representational, but it is the result of a recombination, it is the germ of change and difference.

Gilles Chatelet

A friend of Deleuze and Guattari, Gilles Chatelet is not only connected to the latter by personal ties. As a philosopher and mathematician Chatelet's work also looks at the intersection between the sciences and philosophy. *Configuring Space*, his 1993 book explores the diagram by portraying it as 'frozen gesture' (]1993] 1999). The diagram is of pivotal importance in Chatelet's *ouvre*, which defines itself as an attempt to reconcile reality's inherent processuality and motility with the static nature of scientific thought. The diagram is in this context an "analogical passage between the scientific intellect and nature's motility" (Cavazzini, 2010, p.13. My translation), "an Urphaenomen of the scientific intellect, a sort of matrix of thought" (*ibidem*).

What the philosopher goes to great lengths to describe in this book is the way in which considering mathemes as crystallised gestures brings back the original motion underpinning the static nature of these formulas and in this way restores a 'moving analogy' between signs and nature. By doing so, Chatelet attempts to explain how it is at all possible for the static structures of scientific thinking to mirror the flowing reality of nature. Movement as bodily gesture is by Chatelet re-inserted directly at the heart of the sciences and gestures become, as explained by commentator Andrea Cavazzini, "the productive subsoil of the symbolic forms concatenated in a system" which on the other hand become "symptoms of the dynamics that give origin to them and that sets them into movement again indefinitely" (2010, p.37).

Chatelet's Diagram: Crystallised Gestures and the Re-activation of Knowledge

In *Configuring Space* Chatelet starts by stating that the book is aimed at resolving what he sees as a long-lasting quarrel between mathematics, physics and philosophy. The debate, which sees them as protagonists focuses, for the French mathematician, on the relation between mathematics' autonomous structures, the 'reality' of physics and philosophy's place in relation to the sciences. Relegated to the place of 'Cinderella', Chatelet argues that philosophy should reinstitute itself at the centre of debates to counterpoise what he calls 'classic' rationalism. "It remains anyway", the author argues,

> a certain desire of connecting sensually with what is perceived as a totality mutilated by technical dispersion, an authentic nostalgia of magic power, exasperated by the incapacity of classic rationalism of getting to grips with all those tours de main, all those 'recipes', all those experiences of thought, those figures and those diagrams, all those dynasties of problems allowing, as it seems, the 'miracle' of reactivation ([1993] 1999, p.43).

Chatelet's diagram has, then, two initial characteristics: a fleshy quality, or, rather, the alleged capacity to bring the object of observation in the field of the corporeal, the haptic, and the capacity to 're-activate' problems. Moving on to explaining ways in which problem-solving may be understood, Chatelet starts exposing his gestural approach to it: it is through gesture that Chatelet sees the possibility of a return to a Naturphilosophie. "This gesture", he claims,

> cannot be 'caught' under our eyes (…) no algorhythm governs his *mise en scene*. We should rather speak of a propulsion, that closes itself in an impulse, of an identical gesture, which brings a structure to a pure state and reawakens in us another gesture ([1993] 1999, p.53).

Diagrams become then, for Chatelet, instruments to 'catch gestures in mid-air', because of their capacity of immobilising a gesture before it gets crystallised in a meaningful sign and, more importantly even, they store the propulsion to instigate more gestures. In this sense diagrams are for Chatelet "practices of condensation and amplification of intuitions" ([1993] 1999, p.55).

The initial definition of the diagram as "a simplified drawing showing the appearance, structure, or workings of something" (OED) highlights the relation of similarity (in terms of appearance and structure) between the diagram and the object that it refers to, something that resonates with aspects of Peirce's approach seen above. In this sense the diagram's relation to thinking and problematising as found in Peirce has been individuated as a pivotal feature of this device, something that turn diagrams into instruments which afford thought.

Referring to what he calls the 'philosophical diagram', John Mullarkey argues for the diagram to "work as a process, a procedure, a temporary moment in between: not the shape of a thing but the outline of a process (of thinking)" (Mullarkey, 2006, p.157). Therefore, he argues, "dia-grammes[35] should be always seen as moving forms, whether or not they are static" (*ibidem*). The capacity of diagrams to retain and express movement and process, something that makes the adjective 'diagrammatic' preferable to the use of the noun diagram, as Mullarkey has noted, together with the diagrammatic's relational nature and its capacity to 'incarnate', to somehow physically connect with the object it refers to, also highlight the diagram's relation to thought. As seen above, Laban was conceptualising his 'moving forms' as structures that would escape the static nature of the 'snapshot-like view of perception' and that would maintain a kinetic quality. This aspect is highlighted by process philosopher Deleuze, who, as argued by John Mullarkey, saw diagrams as devices particularly apt to the workings of an immanent, processual philosophy (2006, pp.174-176).

However, for Deleuze the relation of the diagram to its object of investigation goes beyond *analogia communis* towards what he defines as 'aesthetic analogy'. Mullarkey explains how "analogy is less prone to the errors of representation because it embodies its 'object' rather than depicts it" and expresses an "ambiguous, indefinite relation of subject-object intertwining" (2006, p.159). This is evident in the 'haptic' aspect of the diagram in Deleuze. Finally, the diagram can be described as a storage of problems, which is reactivated through gestural interaction. This aspect of the diagram highlights again its relation to problem solving, but maintains a more corporeal relation to this activity. It is the gesturing that allows for a re-formulation of a problematic.

The Intensive and Extensive Aspects of the Visual Diagram: Art and Science

The diagram can be described as 'in-between', as something that allows a passage, a transformation of sorts, as "a quasi-concept as well as something that is in between saying and showing, (…) mathematics and painting, between abstract concept and embodied affect" (Mullarkey, n.d.). Susanne Leeb claims that "this oscillation between systematising and openness is inherent in the diagram" (Leeb, 2011, p.31). In fact, the diagram as visual device plays at the border between disciplines. This is certainly true

[35] Mullarkey draws attention here to the etymology of 'diagram', from the Greek 'dia', "passing through" and 'gramma' "letter", literally, then, a "moving letter".

for Laban, whose philosophical approach is one tending towards a holistic view, which bypasses dichotomies. He would state that 'Reason governing passion – mind controlling matter – is dualism (analysis). Unity is interpenetration of the two polar aspects of existence' (Laban, n.d., L/E/24/56). It is in between the tension of unity, synthesis and analysis that Laban's philosophical approach extends. And it is for this reason that he resorts to the use of diagrams for the study and expression of rhythm.

This outline provides theoretical tools, which will be used in the following chapter to analyse Laban's diagrammatics. This will be done with a particular focus on rhythm.

Chapter 6 – Rhythm and the Diagram

> "Rhythm is the unfolding formed flux, unfolding is the fluid rhythmical form" (Laban, n.d., L/E/3/32. My translation).

This chapter is dedicated to Laban's rhythmology and diagrammatics, Laban's understanding of rhythm will be further analysed through a reading of his unpublished texts and brought together with Laban's graphic philosophy, here seen as a diagrammatics. Laban devised three systems for the study of movement. These are meant to work on different levels of the analysis of movement and rhythm and so are to be thought of in an integrated and combined way.

Kinetography is the most known and utilised notation by Laban, and it expresses what happens in terms of bodily gestures and actions in time. It focuses on phrases of movement laid down on a bar divided into rhythm sequences and each part of the body is represented in a dedicated bar and three different colour codes define whether the movement is performed at low, medium or high level. It is in black and white, the body and movement are decomposed in geometrical sections. It works on a Newtonian understanding of the disposition of the body in movement in space and time.

Choreutics focuses on understanding the harmonious laws of movement, and it brings together both external (kinespheric) and internal (dynamospheric) movement. Although Laban speaks of internal and external movement, his aim was to understand the two as connected, so that from one it is possible to infer the other. This bringing together takes the shape of topological lemniscates and knots attempting to overcome the separation between internal and external. Although Laban understood that internal (or affective) states and moods are non-metric and cannot, therefore, be represented in Euclidean geometry, he thought that there were harmonic paths between moods. Choreutics is concerned both with trace-forms, i.e. the paths outlined by the gestures of the moving body, visually expressed in colours in the hand drawings, and with what Laban calls the 'affinities' of mood-changes.

Finally, effort graphs are intended as tools aiding the work of the observer of the qualities of movement, and in this sense they are a development of that part of

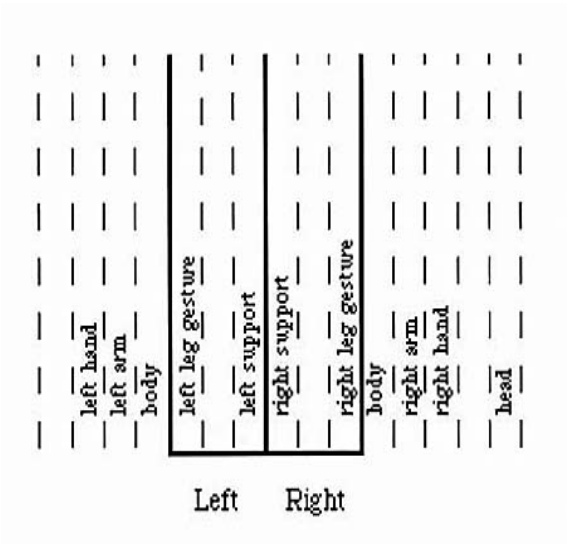
Choreutics, which dealt with dynamospheric representation. They are also used by Laban instead of words in other documents, indicating that probably the author envisaged replacing the much deficient language of words with a graphic style of communication. Effort graphs are non-representative in the sense that they don't have a relation of similarity with their object of investigation (i.e. gesture with right hand=stroke on the right hand side of the bar), they show vectors of qualitative nuances of movement. As seen in Chapter 4, effort is not entirely defined by Laban, but it is comparable with force, both pertaining to the individual and more generally to an all-encompassing vital urge, which Laban also calls élan vital. The study of effort is therefore the study of how energy is inflected by gestures, something that gives rise to the qualitative rhythms of actions. Effort graphs express the intensity of force and rhythm of movements instead of postures, they are black vectors indicating qualities of movement and not position in space.

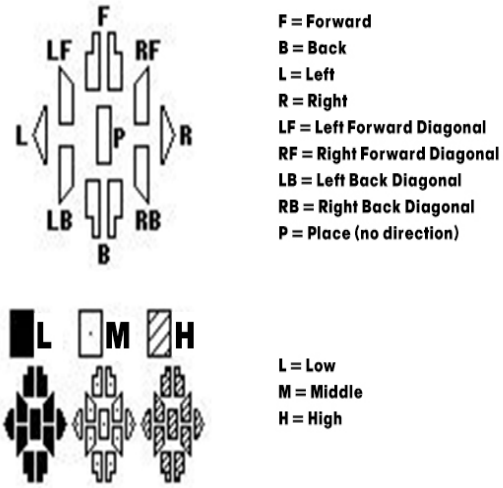
Akiko Yuzurihara (2014) points out in a recent article that Laban went through different stages in devising his notations systems listed above. In a first phase, Laban thought of the notation of movement as 'rein raeumlich' (purely spatial) highlighting in this way the primacy of space. Here he also focussed on directions and pathways through space. Bodies were the third concern. With Kinetography, instead, it is the body that becomes primary in an abstract guise and it is here that Laban gives up directions for end position of limbs. With Choreutics and his studies on effort, Laban returns to more movement- and direction-based notation in which bodies are subordinated to flux and the energetic force of rhythm.

From Tanzschrift to Schrifttanz: Kinetography as Laban's 'Dancing Script'

Each notation system approaches movement differently. In this sense, it is possible to speak of different philosophical approaches to movement and its graphic rendering in the notation. Laban's Kinetography works as an abstraction of body, space, time and movement. Longstaff (2008) reports that Laban had initially devised his notation in 1926 'representing space as motion' (p.24). In this early notation, explains Longstaff, "the space vector signs indicate[d] direction of motion, or orientation of a pathway, without stating the beginning or end position, thus representing space as continuous flux" (p.26). Laban's symbols were meant to be vector signs (Longstaff, 2008), as Laban was working on the principle of 'rein raemlich' mentioned above. The focus was the

progressive development of movement and not on the end position or figure. However, in the published version of Schrifttanz (or Labanotation) in 1928 dynamic signs left room to static indicators of body positions, something that Laban refers to as a "painful compromise" (Laban, quoted in Langstaff, 2008, p.28).





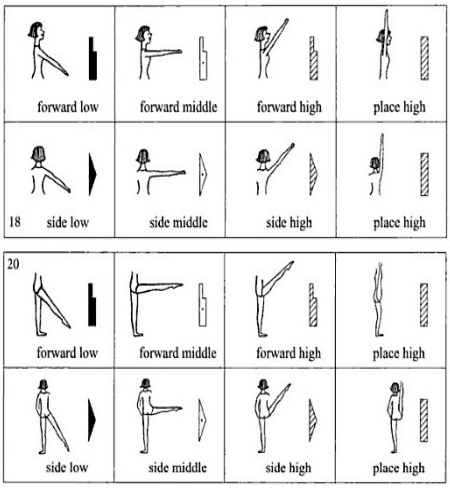


Fig. 20 (Top Left): Kinetography Staff; Fig. 21 (Top Right): Kinetography Directions and Levels; Fig. 22 (Bottom Left): Kinetography Correspondence Limb-Sign. For sources see Table of Figures pp.6-10.

Body

Laban built his system on Feuillet's one and, contrary to the other main notation systems, took a vertical rather than horizontal line or staff as the main point of reference for the notation. The staff is meant to serve two purposes: it connects and divides the body in left and right and, more importantly, provides the fundaments of the time indication, inviting the reader to move from bottom to top. This allows for actions of different parts of the body to be notated simultaneously and consecutively.

Direction

Direction in Labanotation is evinced by the shape of the symbol and level is indicated by the way the symbols are filled: black colour if downwards, a dot if in the middle, striped if upwards. In this way, both direction and level are expressed by the same symbol, unlike other systems where the two are expressed separately.

Timing

The staff is then divided according to meter into regular beats. Time is, thus, visible in the sign itself, so that a long symbol indicates a slow and sustained movement, whereas a short symbol indicates a quick sudden movement.

Rhythm in Kinetography

The question of timing in relation to the symbols is central in Kinetography. Laban states in the 1928 published 'The basic rules of movement script': "The first clear difference to be made, in viewing a movement progression, is the divided examination of the movement flow (time rhythm)" (Laban, 1928a, p.5). Moreover, timing is visual, in that it is easily understood by looking at the staff. For Ann Hutchinson Guest 'only in Labanotation had indication of timing been so deeply investigated' (156). Notwithstanding this commentary, timing and rhythm are represented in Kinetography as metrical beats and they are spatialised on the staff.

Is Kinetography Diagrammatic?

Kinetography can be said to store energy for future reactivation and newness. In this sense it is a dancing script and not a script of dance. "Laban's idea was very secondarily to make a *Tanzschrift*, a dance-writing, a way to record", states one commentator (Dunn, Akiko, p.289), "Laban's idea was to make a *Schrifttanz*, to use graphic – written – inscriptions and then generate activities" (*ibidem*). Akiko Yuzurihara find in Laban's Schrifttanz, as found in his 1926 *Choreographie* a precedent to Postmodern choreography, with its focus on unpredictability and improvisation. Yuzurihara explains that the 'new method in choreography' consists in utilising "dance scripts (…) not as symbols of dance movement that are to be realized, but as a tool for initiating work" (pp.288-289). He then proceeds to locate this 'generating' aspect of dance scripts in Laban's early work on dance notation as found in Choreographie, published two years before the Kinetography (1928). In line with his project of a 'language of dance', Laban

is reported to have said that: "Art dance is a language whose words are movement. These dance words must be formed from dance letters, and connected with dance logic, clearly, plainly and simply" (Laban, quoted in Yuzurihara, p.296). Interestingly, Laban adds that "the *Tanzschrift* executes the analysis; the synthesis is the new dance language-*der Schrifttanz"* (*ibidem*).

Yuzurihara concludes that what Laban meant for Schrifttanz was 'a new system of movement language' which, similarly to its postmodern correlatives (such as Trisha Brown's notations, or Cunningham's chance compositions), was a "prescriptive dance script to be used in the process of production" (p.297) but, contrary to them, it was based on a language of dance. This was focussing on movement, not posture, in its early development (before Kinetograpy) and in particular on directions and "pathways along which these directions are carried out" (Laban, 1926, p.84). Interestingly, in this first phase focussed principally on space, the body executing the movement is highly secondary. The limbs executing the movement are 'sometimes even left out of consideration' (*ibidem*).

This first phase, preceding Kinetography seems more in tune with subsequent phases in which forms and signs are thought of as moving, as movement-signs and moving forms. However, contrary to this, Kinetography focuses primarily on seizing the body in parts on a metrically divided staff, losing, as seen above, dynamic and non-metric aspects. It could be argued that this is what makes Kinetography a good tool to record dances and why it was so appealing for the National Socialist regime. In fact, thanks to this notation, thousand of people could be choreographed even at a distance, as testified by Laban's preparation of the opening ceremony for the 1936 Olympic Games, something that resulted very useful in relation to techniques of crowd control (see also Chapter 4). It should be noted, that very few Kinetographical notations of Laban's own choreographies exist, something that can derive by Laban's unhappiness with the static nature of the representation of movement in it.

Choreutics: Kinesphere and Dynamosphere

Choreutics presents itself as 'the basis of a notation not only of dance but of movement in general' (Laban, 1966, p.48). Laban thought of man as moving in two worlds: kinesphere and dynamosphere. The former is the outward space that can be reached by

the limbs of a human body standing; the latter is a field of forces, which expresses the movements of affects and their qualitative ensembles. Even though Laban treats them separately in his studies of Choreutics for the sake of analysis, these two worlds should be seen as co-penetrating, as movement partakes of both and connects them. He states that

> the experience of the interdependence of dynamospheric and kinespheric sequences has shown us that the conventional idea of space as a phenomenon which can be separated from time and force and from expression, is completely erroneous" (1966, p. 67)

so that "the key was to establish empirical correspondence between virtual lines of effort variation and actual lines of motion" (Moore, 2009, p.172). Laban saw mind and body related in motion, and in this sense his philosophy of movement should be seen as a philosophy that focuses on overcoming the dichotomy of internal and external movement. Moreover, Laban saw the union of mind and body, internal and external, in the lines and in the process of tracing, drawing and diagramming. Although Laban saw the two as correlated, affective states could not be inscribed in the Choreutic solids, as they were non-metric.

In Choreutics there are 26 directions that 'radiate' from the centre of the kinesphere, which constitutes the 27th point. They establish three planes: high, medium, low. "Our body", explains Laban,

> is constructed in a manner, which enables us to reach certain points of the kinesphere with greater ease than others. An intensive study of the relation between the architecture of the human body and its pathways in space facilitates the finding of harmonious patterns. Knowing the rules of the harmonic relation in space we can control and form the flux or our motility' (1966, p.25).

Interestingly, Laban posits as an aim of understanding of movement in space as harmonious in terms of 'control' and 'form' of the flux of existence. The Platonic Solids that Laban identifies as the forms that best contain the paths of bodily movement in

space (especially the icosahedron) express the inner harmony that Laban saw present in the maze of the flux of motility. He maintains that 'it is possible to relate the moving person's feeling for dynamics to the spatial harmonics within trace-forms and to the zones through which the paths of the trace-forms lead' (1966, p.27). Laban defines trace-forms as 'pathways tracing shapes in space' (1966, p.5) and it is through a study of them that he was able to identify the harmonic structure of movement. From the choreutic point of view, it is not necessary to denote in every case which limb is employed to execute a particular trace-form (1966, p.49).

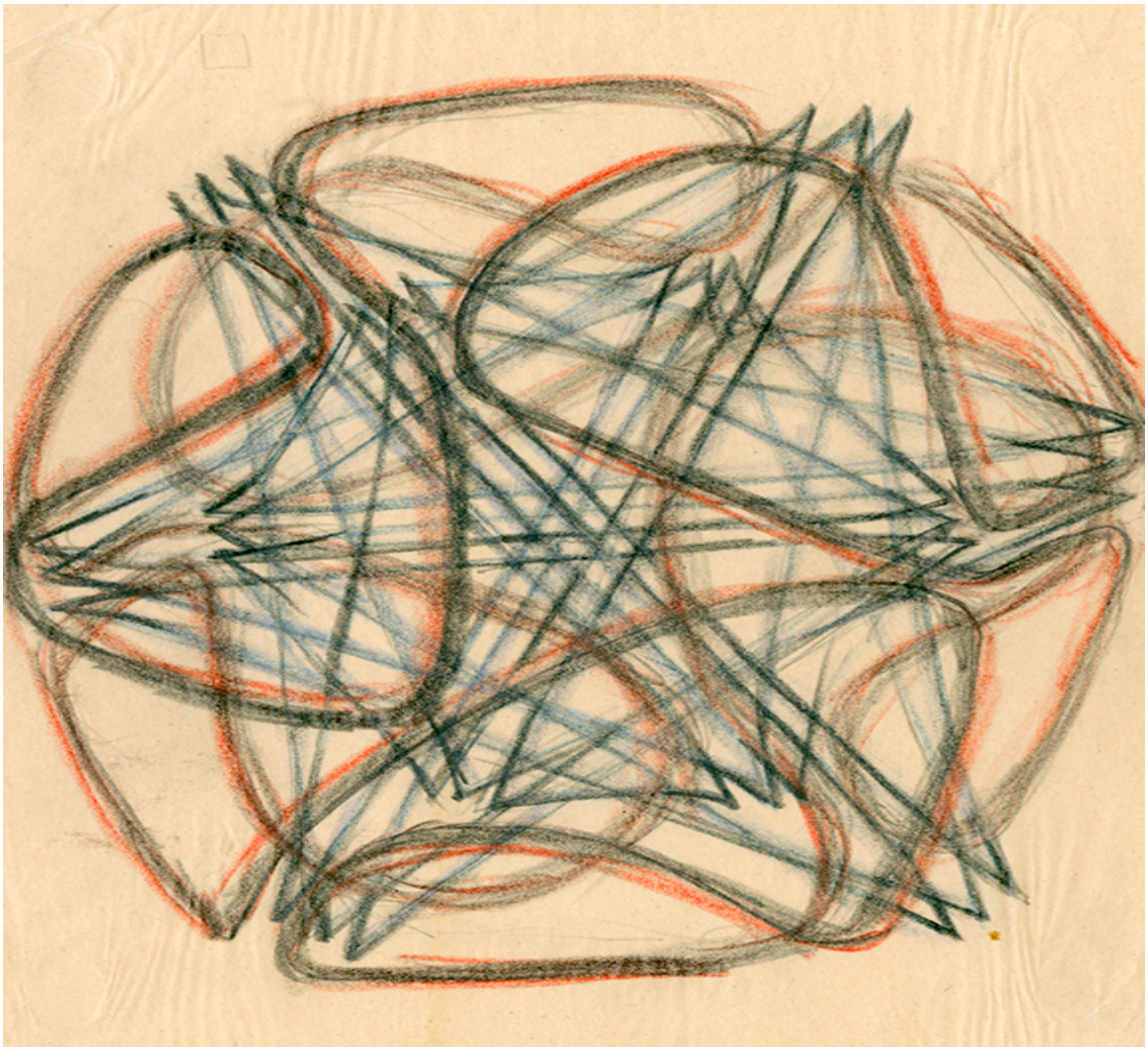


Fig. 23: Icosahedron. For source see Table of Figures pp.6-10.

If the Platonic Solids were good to 'order' kinespheric movement, however, the same could not be said for dynamospheric fluxes and moods. In fact, although Laban claims that "dynamospheric currents and visible spatial unfoldings are entirely inseparable from each other" (1966, p.36), he also affirms that

> the inner meaning of movement can perhaps be described by special dynamospheric symbols still more explicitly than by spatial ones or even by words since we cannot say that movement forms with dynamispheric tendencies are always derivatives of those in kinetic space (1966, p.35).

What Laban is here trying to articulate is the difference between intensive and extensive space, so that his problem in dealing with a notation of dynamic tensions will need to utilise what he elsewhere calls "a dynamic geometry of an inner dynamic space" (Laban, n.d., L/E/19/64). In his explorations of the dynamosphere Laban focuses on the choice of dynamic stresses and the intensities of movement, which he calls action-moods, and, he explains, "are characterised by the intensity-degree of the dynamic traits they contain" (1966, p.49). Laban experiments with topology in order to give dynamospheric forces a visibility, and he uses knots and primarily lemniscates in the last period of his work, as seen in the previous chapter. Although Laban was looking for a law of harmony in movement, he only found it through his geometrical models in terms of kinespheric movement and not dynamospheric unveiling that, as one commentator recently pointed out (Salazar-Sutil, 2012, p.153), affective moods and drives needed topological or non-metric forms in order to be visually represented.

Rhythm in Choreutics

Rhythm in Choreutics is the spatial harmony of polygons inscribed in an imaginary circle. The changes in direction afforded by the polygons give form and structure to the flux of movement. It is this feature that renders possible for Moore to speak about the 'harmonic structure of movement'. This claim is based on a view of rhythm as symmetry (Moore, 2009, p.202) in space and is therefore reductive. In fact, the intensity of rhythm as found in the dynamospheric realm cannot, as we have seen, be represented by the polygons, and will need a separate consideration, one initiated by Laban with his study of effort in the last period of his life.

Is Choreutics Diagrammatic?

Choreutics can be said to present aspects of a diagrammatics in terms of the relation of gesture to structure in the kinesphere. In dance practice and training, the polygons are reactivated through gestures, so that for Laban "the zones of the kinesphere become

apparent and are felt at the moment when they are touched by the moving body" (p.29). This resonates with Chatelet's understanding of gesture in relation to diagrams as a re-activating power, a vital force, which sets geometry into motion (see Chapter 5).

Diagramming Effort

Although commentators such as Moore equate effort with volition or voluntary movements (Moore, 2009, p.151), it is not clear, from what we can read of Laban's Effort theory, what he means by this notion. It is likely, as it can be evinced from examples brought below, that effort should be equated with *élan vital* and in this sense the German for it, that is, 'Antrieb' would take the meaning of 'impulse', primary impulse, rather than volition. Laban speaks indeed of effort in relation to civilisations as well as moving bodies. But mostly, Laban speaks of effort in relation to the rhythm of bodily movement. The primal energy of effort is analysed by Laban in the following way.

Motion Factors

Laban saw 4 motion factors or elements of effort: weight, space, time and flow. Although, as noted by Maletic, Laban's concepts shift over the years, it can be said that effort's motion factors were set by 1930s and then developed in the 1940s and later in England. Laban constructs a binary system around the embodiment of effort: each motion factor can be either seconded or resisted. Flow can be either bound or free, weight strong or light, time fast or slow and space direct or indirect. In doing so, Laban creates the fundamentals of effort's taxonomy, something that allows him to cover in a 'system' the nuances or qualities of effort in movement. The outline of this binary systematisation of movement will follow and it will leave then ground to Laban's graphical counterpart: the effort graphs, which will be analysed in relation to rhythm in Chapter 6.

Effort States, Drives and Complete Efforts

Effort states are a combination of two motion factors, effort drives of three and complete efforts are a combination of four qualities. Effort states total 24 configurations, effort drives 32 and complete efforts 16, for a total of 72 mood states describable and expressable by way of the graph system. Effort motion factors and drives vary following a rhythmic dynamic of exertion and recuperation, so that effort moods change

continuously. Rhythm, stresses Laban, 'speaks' to us in a language beyond words: it "conveys something by which we are influenced: we may be excited, depressed, or tranquilised" (Laban and Lawrence, 1947, p.xiv). Rather than meaning per se, then, rhythm speaks an affective language. This language is that of effort in its relation to the four Movement Factors of time, space, weight and flow (see also Chapter 4). The attitude of the moving body towards these can be of either 'indulging' or 'resisting', giving birth to the eight basic qualitative aspects of movement listed below (Fig.24).

MOTION FACTORS	INDULGING	RESISTING
SPACE	FLEXIBLE	DIRECT
TIME	SUSTAINED	QUICK
WEIGHT	LIGHT	STRONG
FLOW	FREE	BOUND

Fig. 24: Table of efforts in relation to the Motion Factors

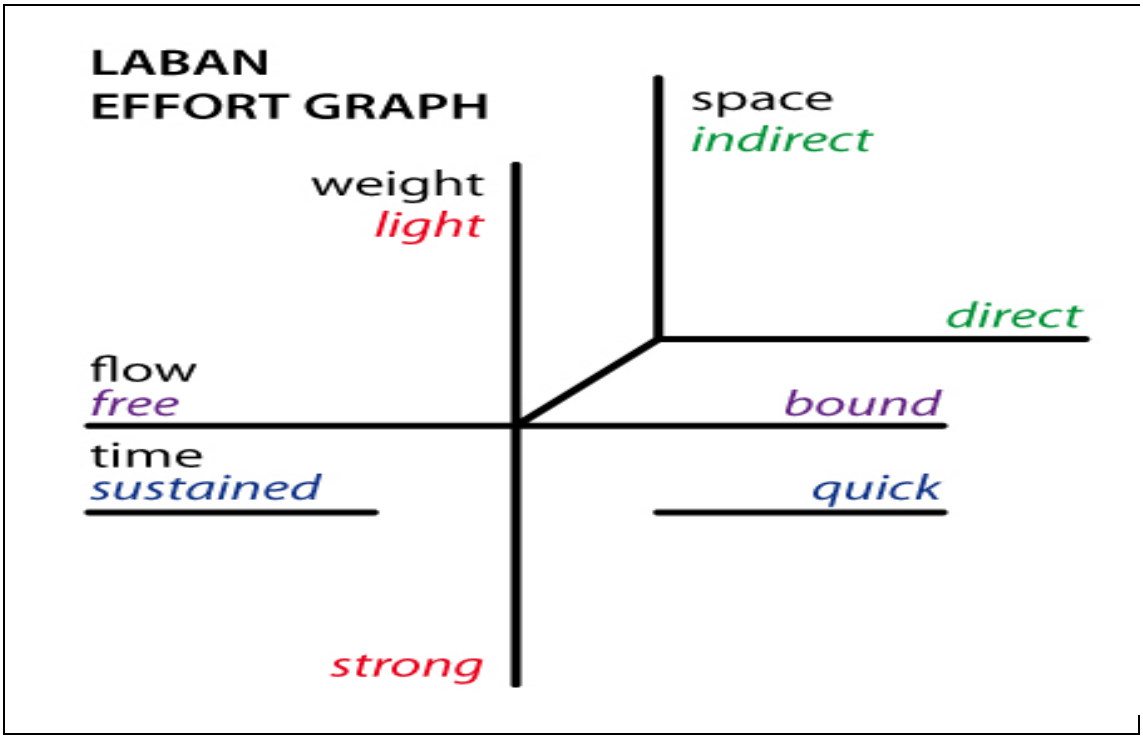
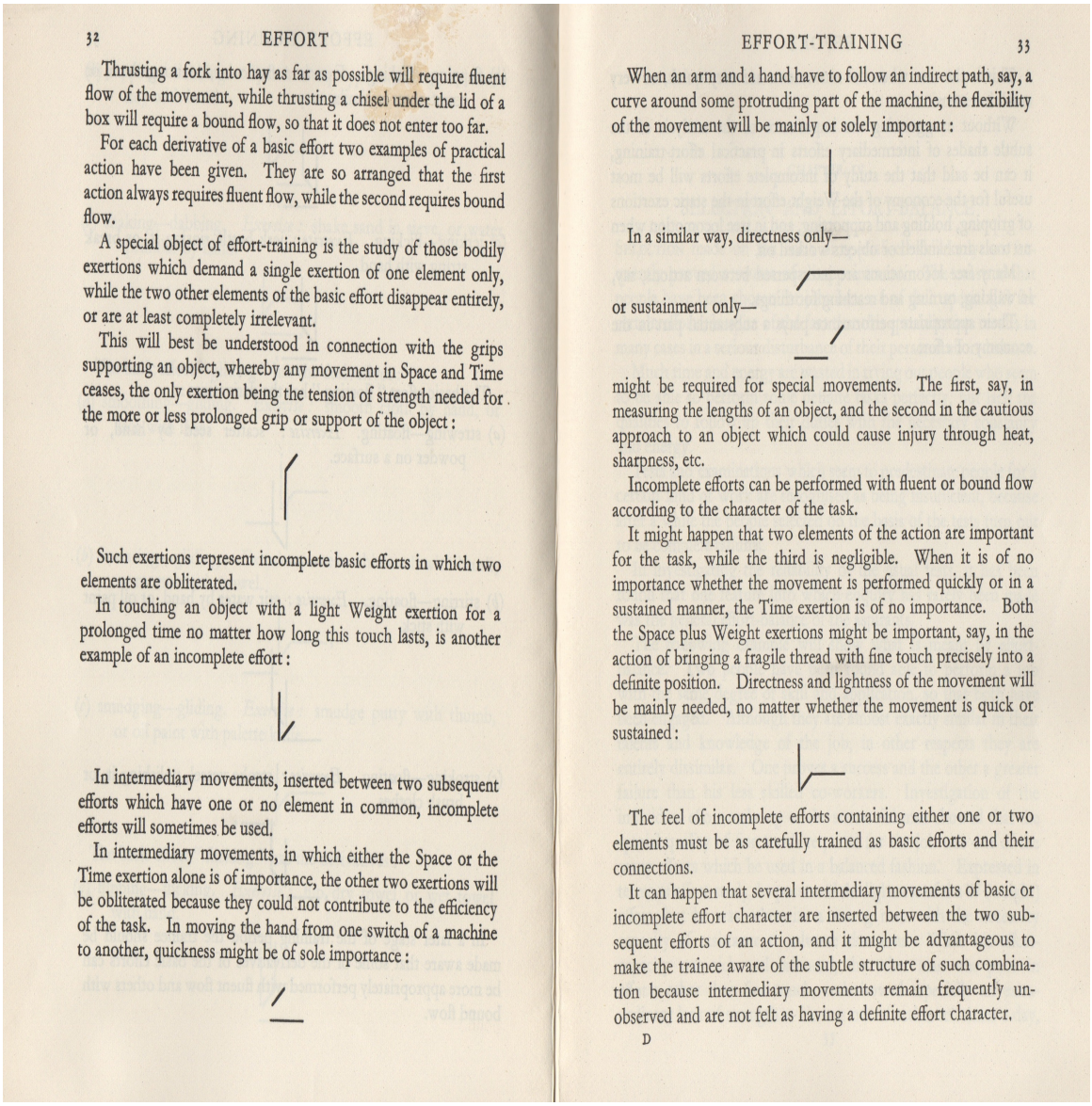


Fig. 25: Effort Graph. For source see Table of Figures pp.6-10.

Laban defines the effort/rhythm-graph (Fig.25) at first as a symbol and as a "representation of the effort content of a movement by combination of strokes or bars"

(Laban and Lawrence, 1947, p.8). Claiming that "the discussion and understanding of the various combinations of controlled and uncontrolled exertions and their importance for the economy of effort can be assisted by the use of effort graphs" (Laban and Lawrence, 1947, p.12), Laban proceeds to elaborate his effort-theory alternating words and diagrams, as in the example below (Fig.26).



32 EFFORT

Thrusting a fork into hay as far as possible will require fluent flow of the movement, while thrusting a chisel under the lid of a box will require a bound flow, so that it does not enter too far.

For each derivative of a basic effort two examples of practical action have been given. They are so arranged that the first action always requires fluent flow, while the second requires bound flow.

A special object of effort-training is the study of those bodily exertions which demand a single exertion of one element only, while the two other elements of the basic effort disappear entirely, or are at least completely irrelevant.

This will best be understood in connection with the grips supporting an object, whereby any movement in Space and Time ceases, the only exertion being the tension of strength needed for the more or less prolonged grip or support of the object:

Such exertions represent incomplete basic efforts in which two elements are obliterated.

In touching an object with a light Weight exertion for a prolonged time no matter how long this touch lasts, is another example of an incomplete effort:

In intermediary movements, inserted between two subsequent efforts which have one or no element in common, incomplete efforts will sometimes be used.

In intermediary movements, in which either the Space or the Time exertion alone is of importance, the other two exertions will be obliterated because they could not contribute to the efficiency of the task. In moving the hand from one switch of a machine to another, quickness might be of sole importance:

EFFORT-TRAINING 33

When an arm and a hand have to follow an indirect path, say, a curve around some protruding part of the machine, the flexibility of the movement will be mainly or solely important:

In a similar way, directness only—

or sustainment only—

might be required for special movements. The first, say, in measuring the lengths of an object, and the second in the cautious approach to an object which could cause injury through heat, sharpness, etc.

Incomplete efforts can be performed with fluent or bound flow according to the character of the task.

It might happen that two elements of the action are important for the task, while the third is negligible. When it is of no importance whether the movement is performed quickly or in a sustained manner, the Time exertion is of no importance. Both the Space plus Weight exertions might be important, say, in the action of bringing a fragile thread with fine touch precisely into a definite position. Directness and lightness of the movement will be mainly needed, no matter whether the movement is quick or sustained:

The feel of incomplete efforts containing either one or two elements must be as carefully trained as basic efforts and their connections.

It can happen that several intermediary movements of basic or incomplete effort character are inserted between the two subsequent efforts of an action, and it might be advantageous to make the trainee aware of the subtle structure of such combination because intermediary movements remain frequently unobserved and are not felt as having a definite effort character.

D

Fig. 26: Effort Notation in-between Writing. For source see Table of Figures pp.6-10.

This shows that Laban had a project of overcoming words in the description of affect (more about this below). The action 'punching' is expressed in Fig.27 in its dynamic of appearing and disappearing. In its emerging from the flux of continuous movement, a first effort/rhythm appears: it is strong in relation to weight, direct in relation to space

(Fig.27, first top line left) and sudden in its attitude to time (Fig.27 first top line middle). In its diverse composition, the resulting action takes place through its polyrhythmicity and it is embedded in the diagram, from which it then moves on towards dissipation and anticipation of further action.

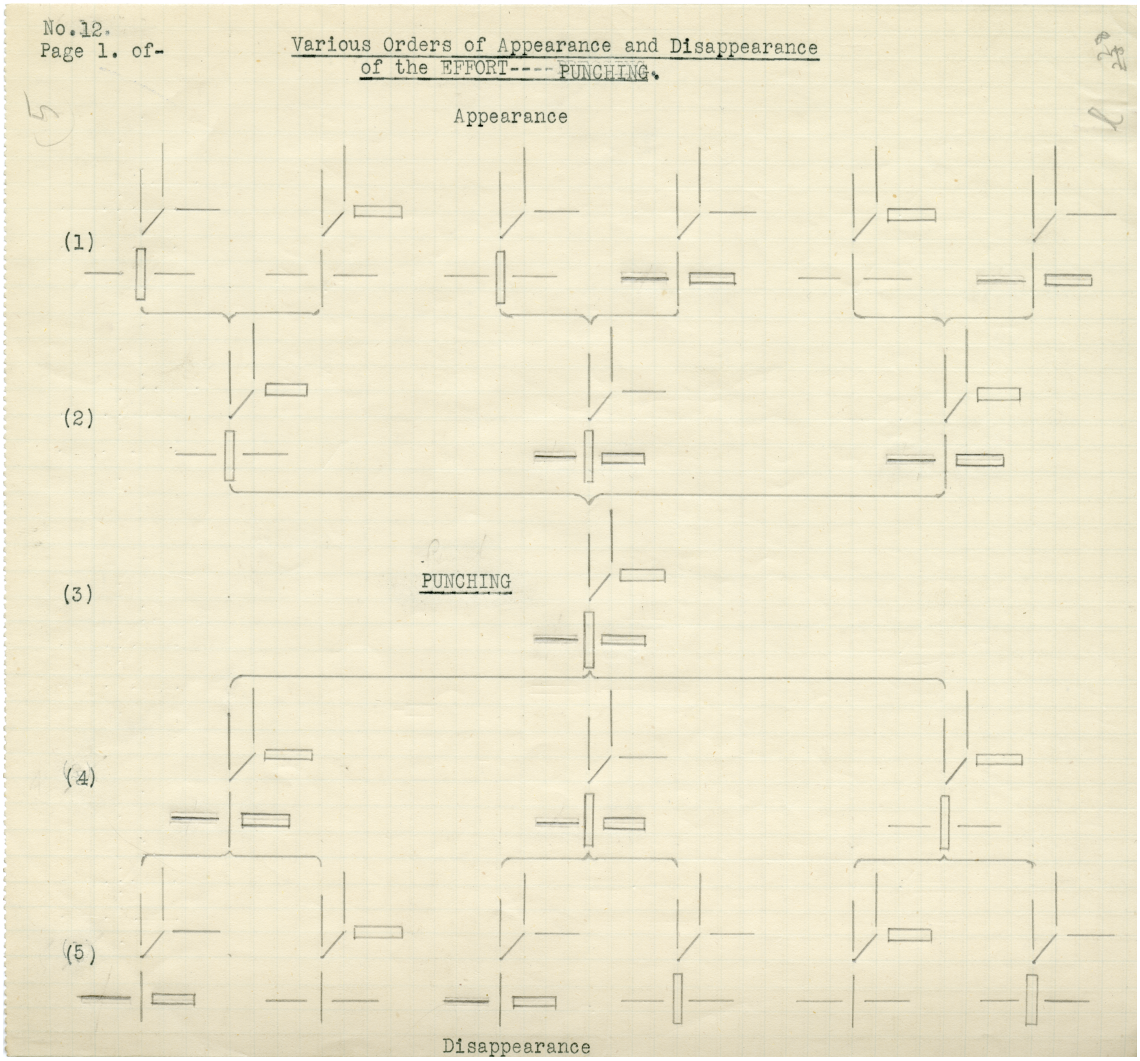


Fig. 27: Diagrams of the Action ‘Punching’. For source see Table of Figures pp.6-10.

Laban traces here the rhythm and effort of the action by cutting it off from the continuous flow of movement, but at the same time by allowing for a detailed yet anexact exploration of a phraseology of rhythmical movement. The different accents result in the rhythmical nuances of punching, in this case a direct, strong and sudden quality of movement with either ‘fluent flow’ (striking punch) or ‘bound flow’ (hitting punch). The action ‘punching’, moreover, is chosen for the sake of clarity by Laban among numerous that express the same rhythmical qualities in relation to the four factors

of weight, space, time and flow, and this highlights the diagram's non-prescriptive aspect. The diagram of the punching action above acts as a device to expose a set of relational dynamics that correspond to an action such as 'punching'. Without doing away with its potential, as a device the diagram stores it and delivers it anew to the viewer. Far from being a reductive stylisation of the rhythmic moving body, as it may seem at first glance, effort-graphs do away with a representational and mimetic reproduction of the body, effort and rhythm. Instead the effort graph inserts these directly as vectors of what may be called the diagrammatic synthesis itself of Laban's rhythmology. Each compound/assemblage of movement factors of an action gives birth to a specific rhythm. Each effort graph expresses the rhythm of a movement, what Laban calls a movement-drive or *rhythm-drive*.

If, as we've seen, rhythm for Laban partakes both of the quantifiable and the non-quantifiable, or qualitative, the effort graph becomes the extended skeleton of the vibration of movement-rhtythm, vibration that the diagram allows to propagate further. In his analysis of the Jamaican soundsystem, Henriques shows how the body of the dancers amplifies and reverberates the energetic vibrations of rhythmic sound, something that allows for the body to be seen as a medium in itself (Henriques, 2014). Similarly, here the rhythm graphs capture and inflect or reverberate the moving body's fleshy resonance. Rather than a personalised effort-rhythm, it is useful to think, in line with Laban's philosophy of movement, of a movement that overcomes notions of personality, individuality and expresses these in qualitative nuances. What moves is movement, which creates patterns and rhythms and bodies, which deflect diagrammatic gestures. In this sense can be understood the shift from *Schrift-tanz* to Choreutics to effort graphs: as a shift from a representational/indexical grapheme to a diagrammatic inscription.

The intensive aspect of rhythm gives birth to its extensive. Effort in the graph is the line that allows for dimensional exchange, from bi- to tri-dimensional, it is the creative force or propulsion that forces rhythm to expand into vectors. The effort of the gesture is compressed in the line, which originates from the central dimensional enhancer and spreads into the page. The neat line that appears is the extensive correlate of intensive non-metric rhythm. We've seen how for the author effort/rhythm is a para-language that is better expressed via diagrammatic lines. Effort and the rhythm of the body in action

move in a non-representational, dynamic sphere (literally, a ‘dynamosphere' for Laban) that is contiguous with that of the diagram.

Peirce’s and Chatelet’s Diagrams in Laban’s Diagrams

Carol-Lynne Moore claims that Laban was thinking through his visual models and that this methodological approach is consistent throughout his career (2009, p.50). A similar position has also been advocated by Salazar Sutil, who refers to Laban’s inscription as a kind of ‘material thinking’ (2012, p.148). In fact, this is evident from a perusal of his notes. In this sense we can speak of ‘diagrammatic reasoning’ as defined in Chapter 5, and Peirce and Laban are connected by their seeing the diagram as an instrument affording thought. Rather than understanding all of Laban’s graphic inscriptions on the same level, as Moore and Salazar-Sutil do, the thesis shows that looking at them from the point of view of diagrammatics allows us to make a distinction between uses of the inscriptions. The research in the NRCD archive uncovered a series of sketches in-between text that indicates in which way Laban was operating diagrammatically in Peirce’s and Chatelet’s sense seen above. There are indications in Laban’s personal notes that effort graphs, similarly to *Effort* (Laban and Lawrence, 1947) were meant to replace words altogether (Fig.28).

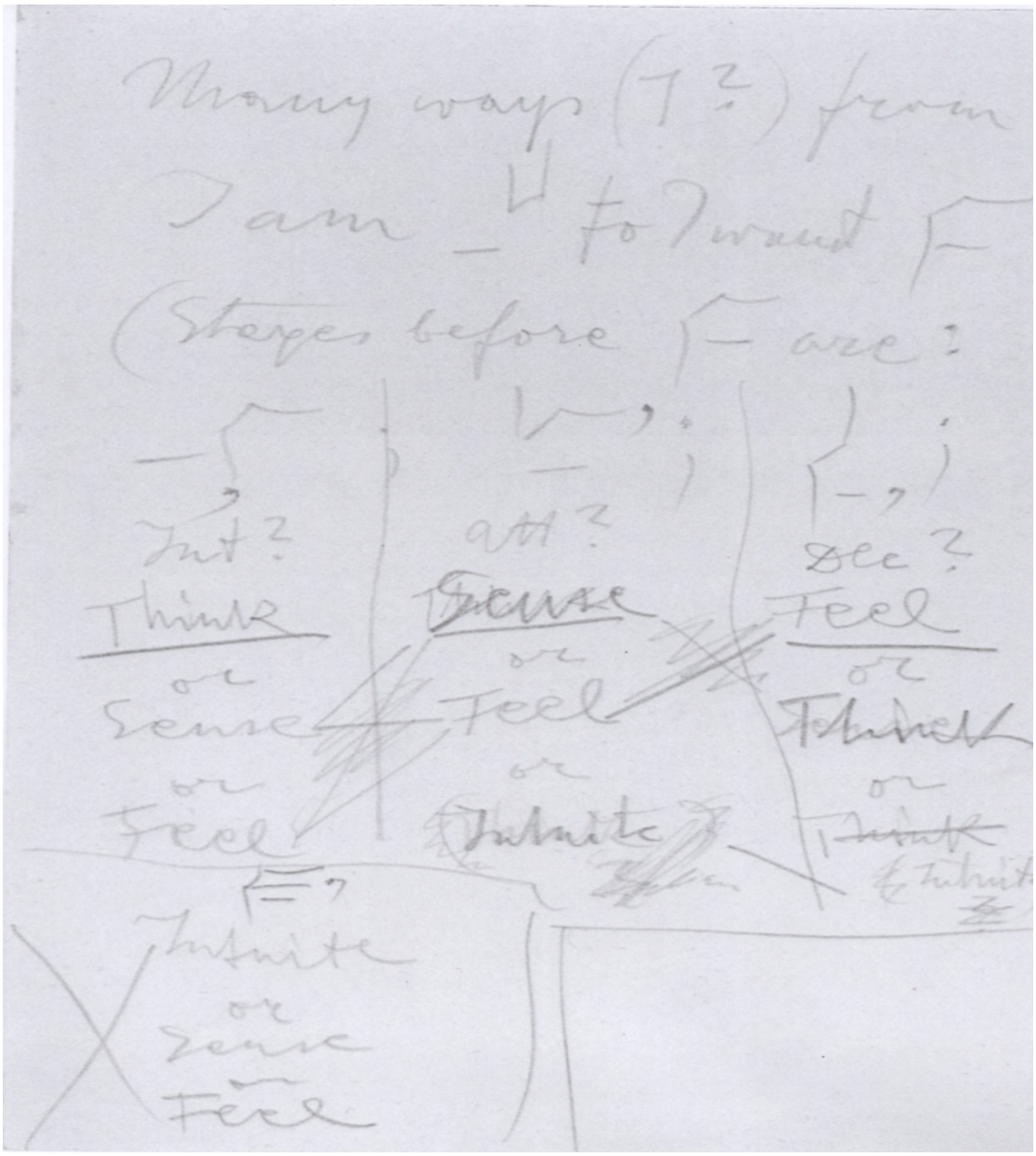
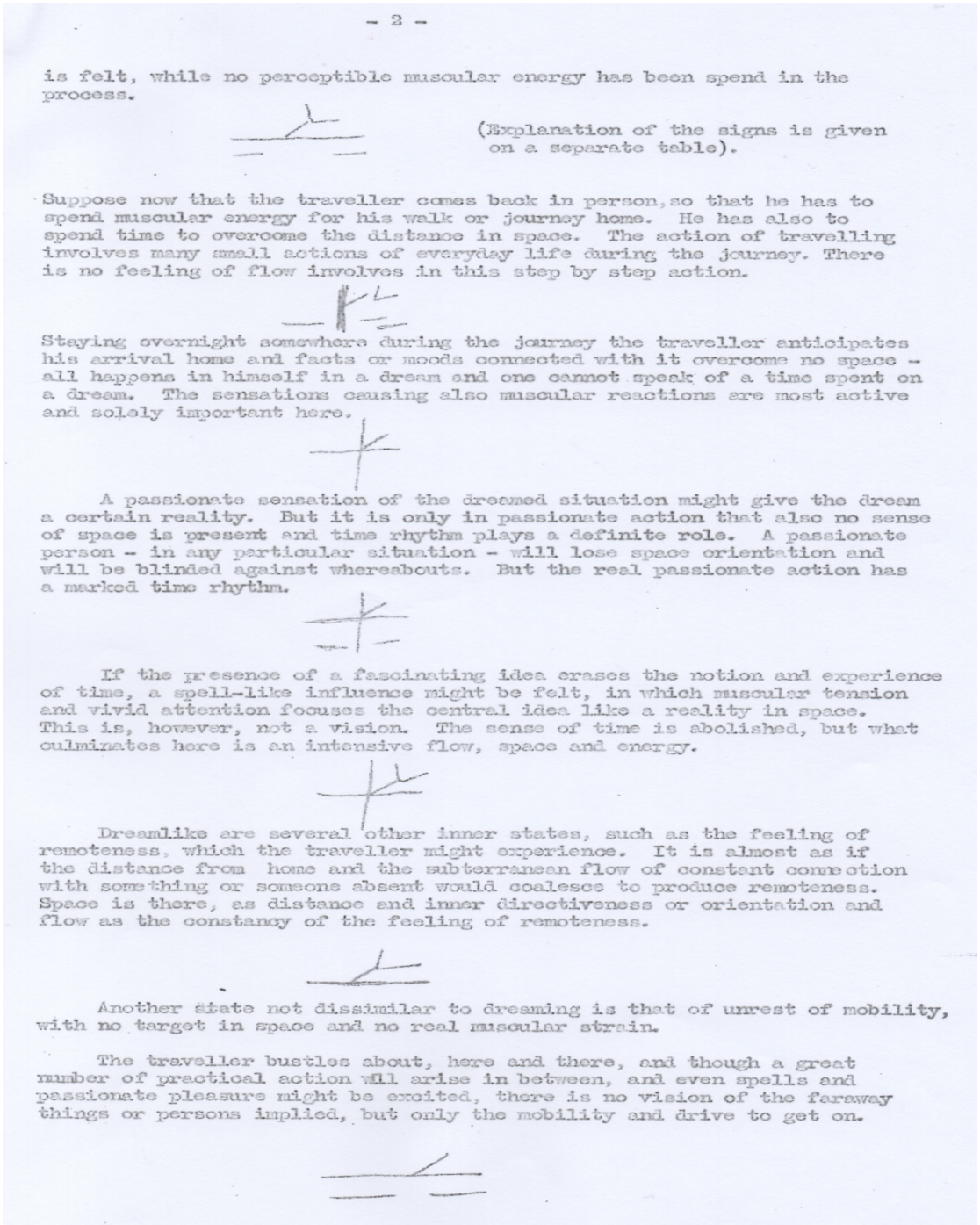


Fig. 28: Many Ways from I am to I want: Effort Notation in-between writing. For source see Table of Figures pp.6-10.

Laban is here working on his late project of a psychology of movement and we can see that he was devising it non-verbally through effort diagrams. Thinking, Sensing and Feeling entail different rhythms, which are expressed diagrammatically. Laban speaks of deed-thinking (as opposed to words-thinking) as a fundamental process of thought and he laments the progressive loss of movement-thinking, something that is reflected also in the subjugation of dance to the other arts (L/E/19/64). He also thinks of mind as movement (L/E/26/10). "There is no mind without movement", he states, "and it is today more than probable, that mind is in itself a particular form of movement" (*ibidem*). This

is an attempt at trying to bypass the only apparent dichotomy between reason and movement, between quantisation and movement. In an excerpt entitled 'Philosophy of Movement' (L/E/7/45) Laban proceeds to explain how it may be possible to speak the language of movement. His approach utilises a graphical rendering of the internal movements of effort coupled with written text (Fig.29). What is the reason he inserts the effort graphs here, in his explanation of a philosophy of movement?



- 2 -

is felt, while no perceptible muscular energy has been spend in the process.

(Explanation of the signs is given on a separate table).

Suppose now that the traveller comes back in person, so that he has to spend muscular energy for his walk or journey home. He has also to spend time to overcome the distance in space. The action of travelling involves many small actions of everyday life during the journey. There is no feeling of flow involves in this step by step action.

Staying overnight somewhere during the journey the traveller anticipates his arrival home and facts or moods connected with it overcome no space - all happens in himself in a dream and one cannot speak of a time spent on a dream. The sensations causing also muscular reactions are most active and solely important here.

A passionate sensation of the dreamed situation might give the dream a certain reality. But it is only in passionate action that also no sense of space is present and time rhythm plays a definite role. A passionate person - in any particular situation - will lose space orientation and will be blinded against whereabouts. But the real passionate action has a marked time rhythm.

If the presence of a fascinating idea erases the notion and experience of time, a spell-like influence might be felt, in which muscular tension and vivid attention focuses the central idea like a reality in space. This is, however, not a vision. The sense of time is abolished, but what culminates here is an intensive flow, space and energy.

Dreamlike are several other inner states, such as the feeling of remoteness, which the traveller might experience. It is almost as if the distance from home and the subterranean flow of constant connection with something or someone absent would coalesce to produce remoteness. Space is there, as distance and inner directiveness or orientation and flow as the constancy of the feeling of remoteness.

Another state not dissimilar to dreaming is that of unrest of mobility, with no target in space and no real muscular strain.

The traveller bustles about, here and there, and though a great number of practical action will arise in between, and even spells and passionate pleasure might be excited, there is no vision of the faraway things or persons implied, but only the mobility and drive to get on.

Fig. 29: Philosophy of Movement and Deed-thinking. For source see Table of Figures pp.6-10.

The hand drawn diagrams here have the role of explaining succinctly the emotional dynamics present in the textual tale. In this sense, they are not part of the tale or argument, but they are ancillary. Laban seems here to have wanted to include them, similarly to what he did in *Effort* (Laban and Lawrence, 1947), only to show their potential for organising and expressing the complexity that text cannot reduce. Laban seems to think his effort graphs to be able to express the 'meaning' of dynamic actions without words.

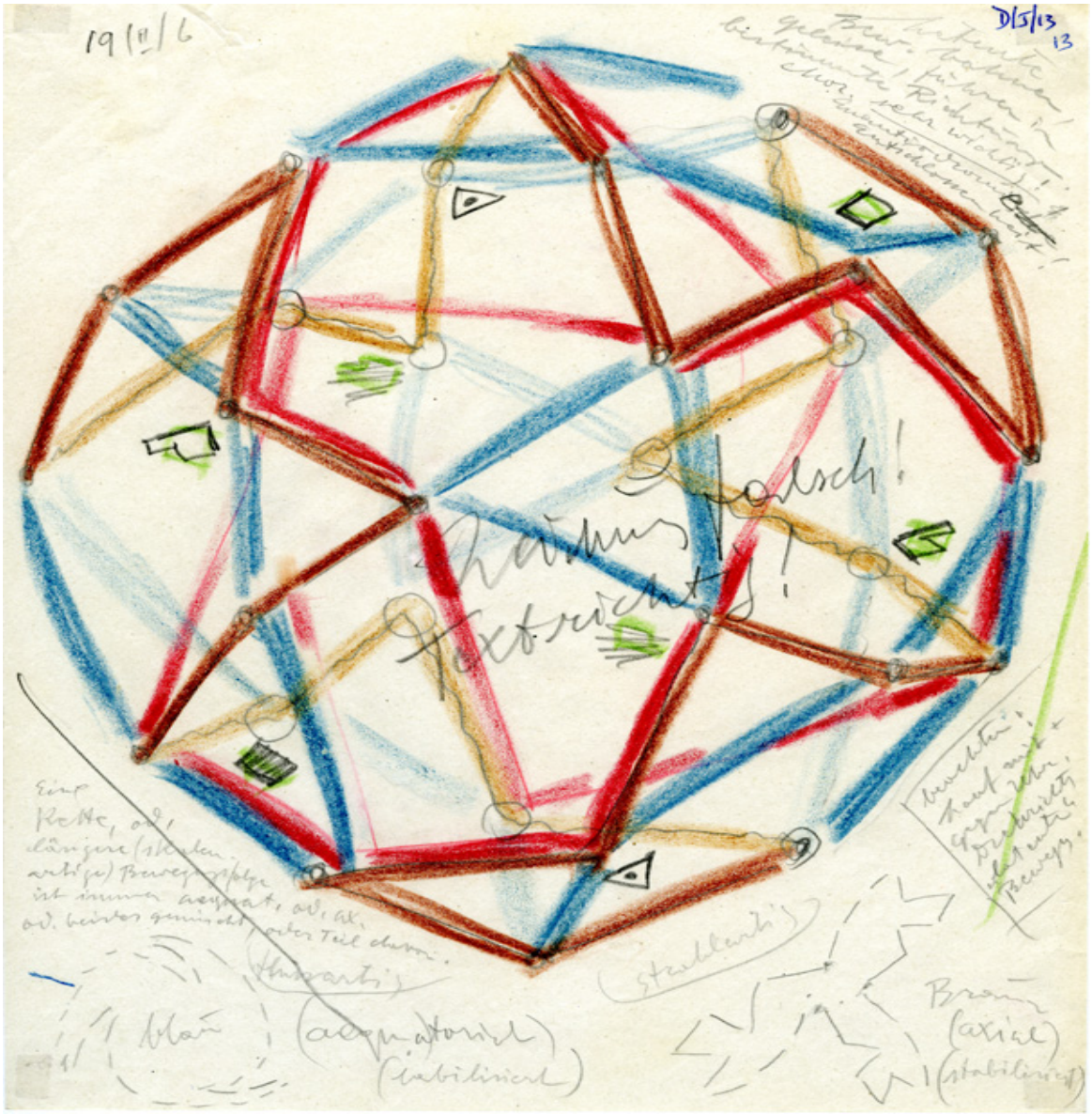
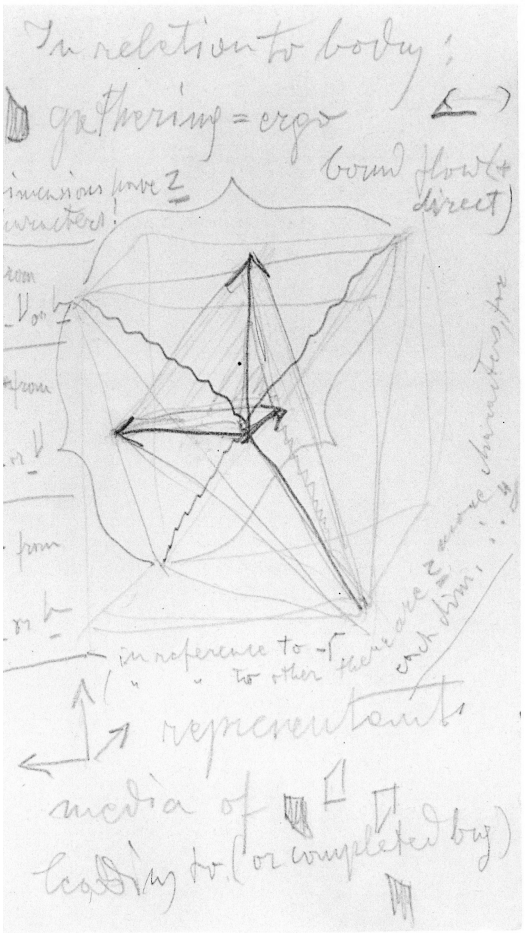
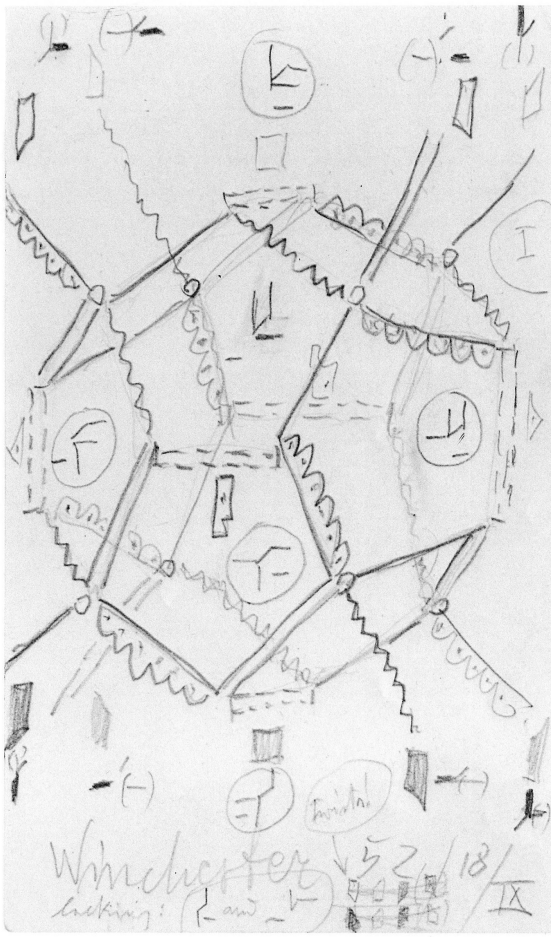


Fig. 30: Drawing is Wrong, Text is Right! For source see Table of Figures pp.6-10.

Similarly, in Fig.30 Laban shows that there is a correspondence between text and drawing. He writes that text is right and the diagram is wrong: did his written thoughts

arise from the drawing or vice versa? The disposition of text in the page lets us think that Laban worked on the drawing first, and then continued reasoning in text (although other graphic reasoning processes are visible outside of the main drawing). What is more probable is that in the exchange between drawing and text, in the dialogue, Laban realized that the drawing was not expressing what he intended in the first place. This realization was, however, only possible, in a second moment, after the clash diagram-text had taken place. The content of the text was the product of observation of the drawing, highlighting in this manner its heuristic nature.





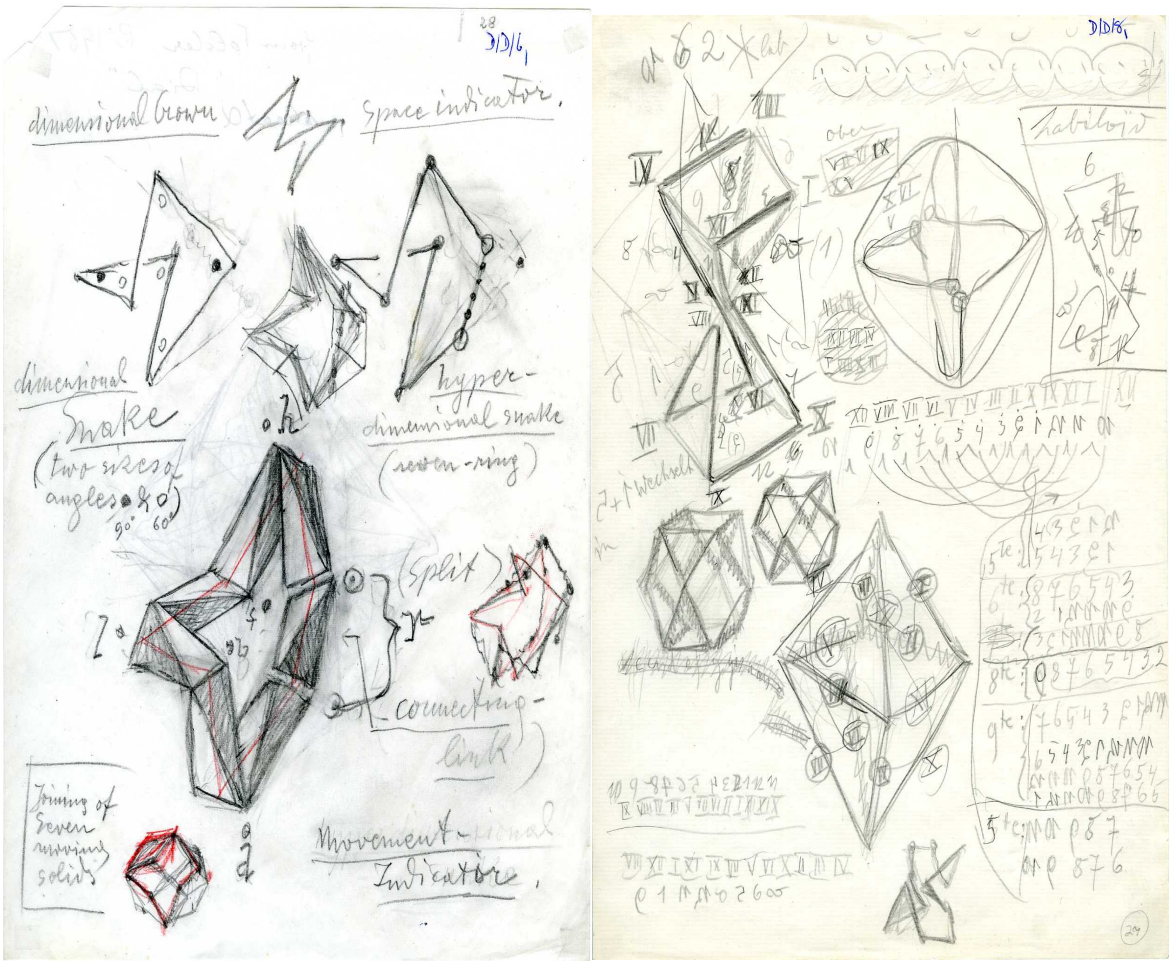


Fig. 31-34: (Top left) Different sign systems with geometrical model; (Top right) Movement Scale on Icosahedron with Effort Signs; (Bottom Left) Dimensional Snake; (Bottom Right) Labiloid. For sources see Table of Figures pp.6-10.

In the drawings above (Fig.31-34), found in-between Laban's notes, the author is 'working out' relationships between movement scales as found in Choreutics and effort moods in a process of diagrammatising. Laban uses a combination of experiments on structures, vectors, kinetographic- and effort- signs, and text. He also exhibits an interesting trait, which is a mixture between text and signs.

As seen in the previous chapter, Gilles Chatelet's understanding of diagrams focused on the embodiment of mathematical and geometrical structures and a focus on the reactivation of problems. The performative aspect of tracing and re-tracing models aids in a corporealisation of otherwise abstract concepts.

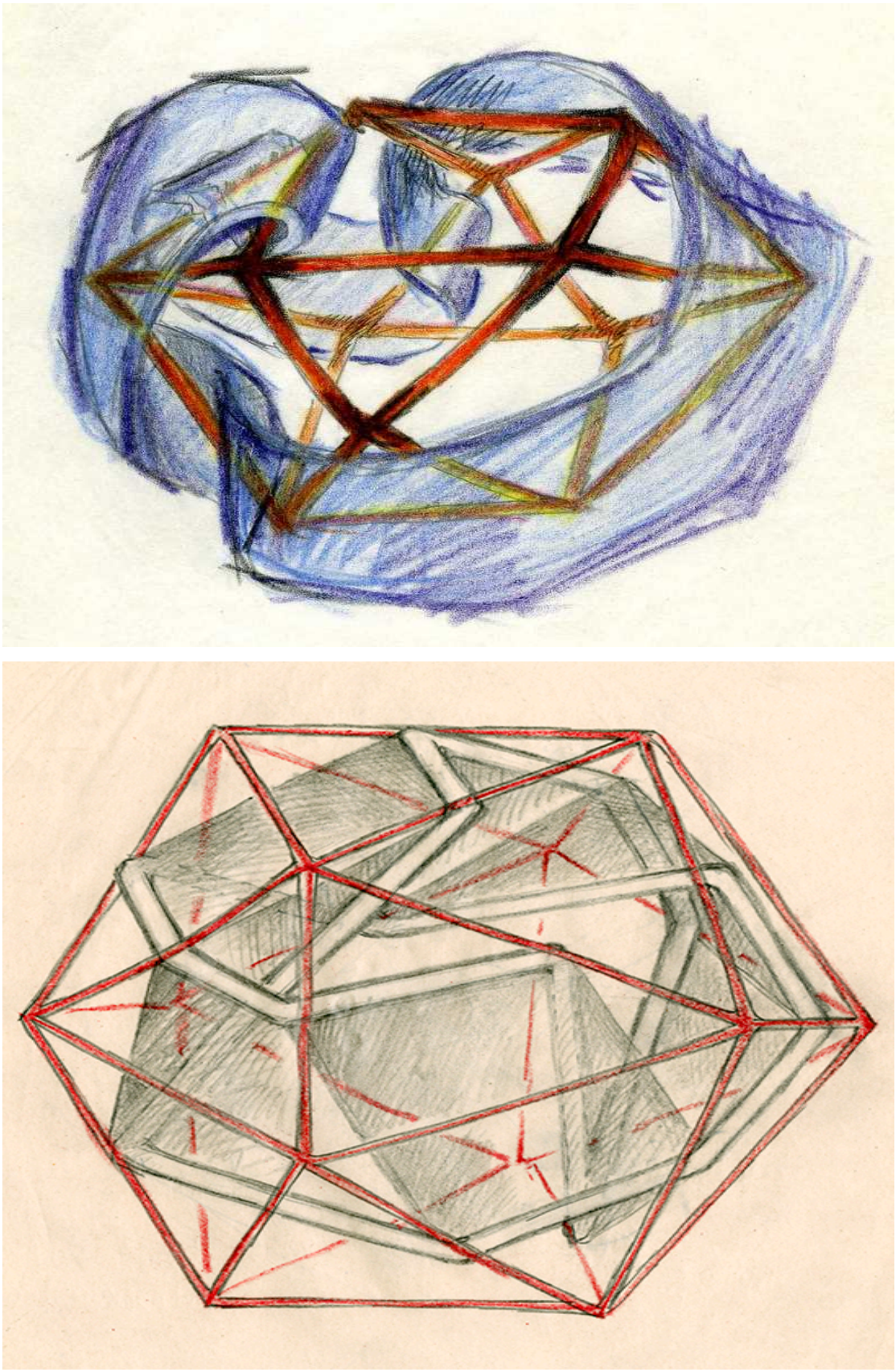


Fig. 35-36: (Top) Flux enveloping Structure; (Bottom) Structure Containing Flux. For source see Table of Figures pp.6-10.

Laban oscillates between two poles in trying to describe the relation of movement to form in his drawings, something that is visible in the drawings above (Fig.35-36). Moore notes how drawings in which human shapes intersect with geometrical forms are sometimes starting from the form, sometimes from the bodies (48). Sometimes the relation of force to structure tends towards a liberation of the former at the expenses of the latter, as in the drawing above. Sometimes, as critics have noticed (Toepfer, 1997), the fluid force, or creative power (L/E/25/24) seems imprisoned, crystallised in the perfection of the immutable form that strangles her. One is under the impression that bodies and movement are trapped by the frame. This seems to be the case, for example, in the figures below (Fig.37-38). However bizarre and spectacular the leap of energetic movement, the torque, Laban encapsulates bodies into lines.

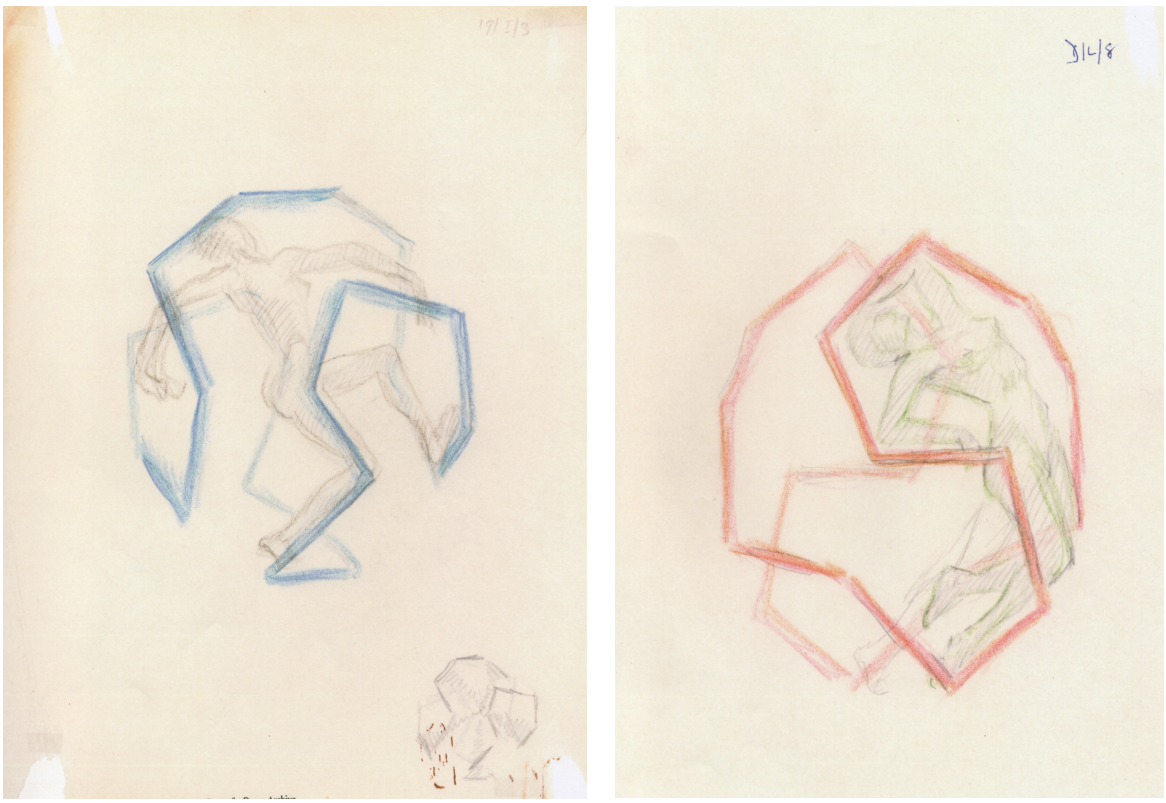


Fig. 37-38: Figures in Structures. For sources see Table of Figures pp.6-10.

The icosahedron here contains the awkwardly stretched dancer giving harmony to the otherwise disordered flesh. In a study for the layout of an exhibition (Fig.39-40), Laban makes an important statement for what regards the relation of frames or 'cages', as he

calls them here, and bodies. He states that the red 'cage' can be changed according to the proportion of figures. He adds that the main thing are the bodies, the 'cage' is secondary.

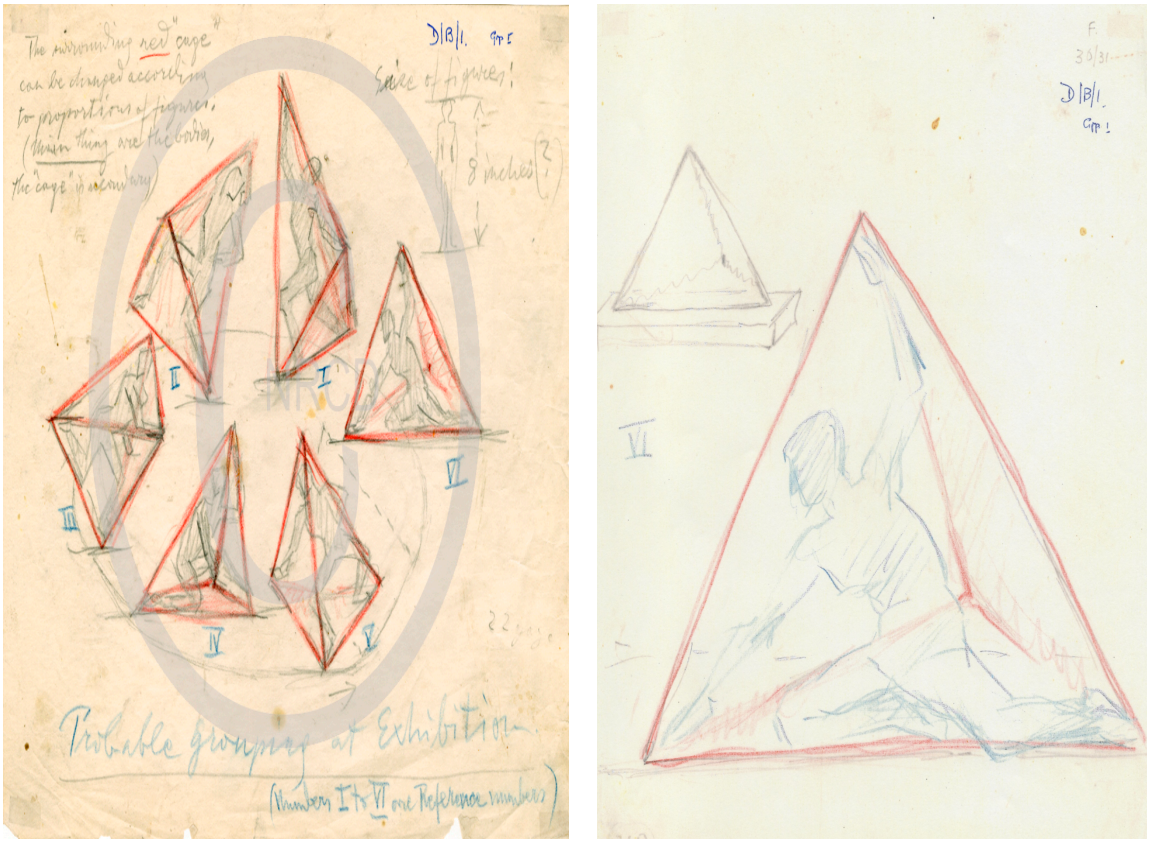


Fig. 39-40: Relation of Bodies to Structures. For sources see Table of Figures pp.6-10.

This indicates that there is an equal relation between bodies and geometries: if the form might have been chosen first, it is dependent on the body and makes this a dialogue between flesh and geometry. It is in this sense that it can be said that "Laban was both geometric and human, rather than opting for one side of the opposition" (MCaw, 2011, p.337).

Laban starts from a basic problematic, which is that of the representation and expression of rhythm and movement. In his study of 5Rhythms Dance (2002), McCormac asks how might movement and rhythm be given a word outside of representation (p.470). Non-representational theory is here defined by its valorising pre-conscious thought and affective, non-discoursive practices in favour of a language-driven paradigm (Thrift, 2007). Non-representational theory focuses then on those practices that create meaning in immanent, dynamic milieus. Exploring the relation between movement and rhythm and non-representational theory McCormack argues that diagrams, as non-

representational devices suit an 'interest in rhythm' and its study and he locates the necessity of diagrammatics in relation to the expression of a rhythmic performative practice in the diagram's capacity to express, rather than represent rhythm itself (McCormac, 2002 and 2005). It can be argued that Laban provides a practical argument to validate these claims.

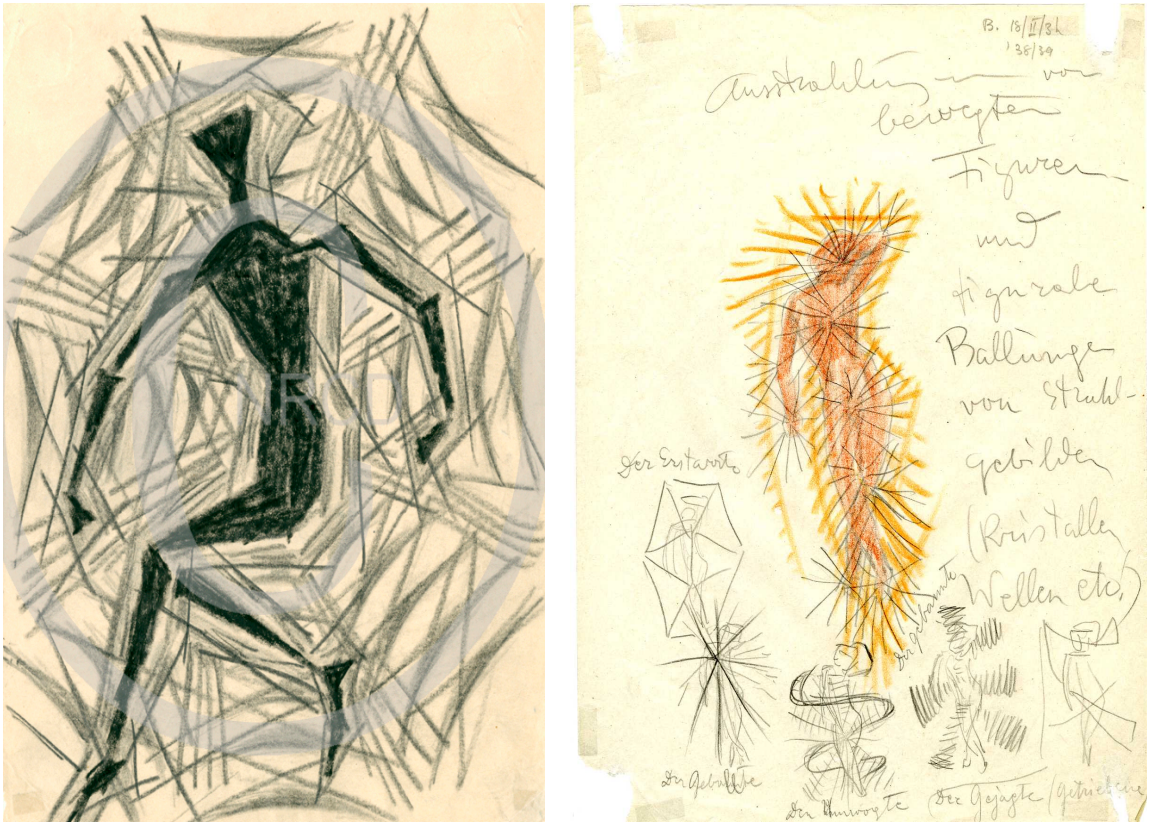


Fig. 41-42: Rhythmic and Energetic Emanations. For sources see Table of Figures pp.6-10.

Laban's response moves from a more 'representational' to a more 'vectorial' and diagrammatic approach. In Fig.41 Laban's attempts to express the rhythmicity emanated by the moving body focuses on its propagation in, or rather, its impact on the creation of space. In a piece that reminds us of Modernist artistic renditions of movement, Laban works here on the relationship between body, geometry and rhythm by encapsulating geometry in the body and rendering the body itself geometrical. This drawing is powerful in its emanations of rhythm and in its clash of body and pattern: the dancer's body propagates and evolves into crystalline lines without ever losing its momentum, beyond the page, as if the sheet of paper could not contain its propulsion. In the drawing on the right hand side (Fig.42) Laban is working out 'the radiations of the Figures in movement' in the form of crystals, waves, etc. Besides the main Figure in colour, there are five additional Figures surrounded by vibratory emanations, the congealed (first left),

the accumulated, the one flowing around, the scattered, and the embossed (last right). They show different ways in which the force of rhythm can create shapes inflected by the body.

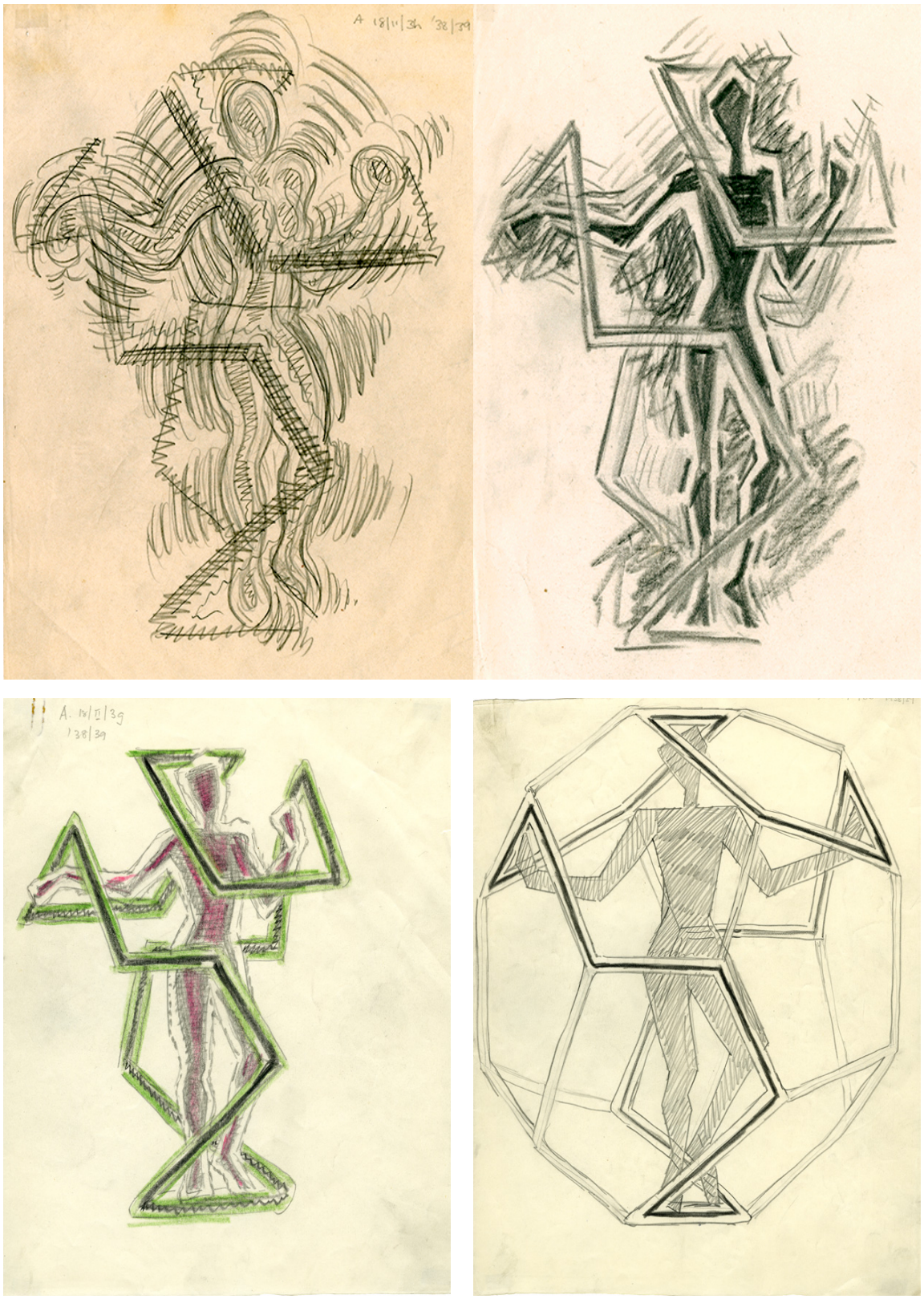


Fig. 43-46: Settling Down of Rhythm and Movement into Meter and Structure. For sources see Table of Figures pp.6-10.

In the dynamic sequence visible in Fig.43-46 the subsequent sedimentation of the vibrational, polyrhythmic matter is visible. Fig.43 is caught in the hysterical rhythms of matter and body, something that is here propagating also to the trace-form surrounding the Figure. The frame is shaken in the propulsion of the swing. Slowly the movement in slowing down, but still visible in Fig.44 and Fig.45: here movement is injecting dynamism in the form of colours. Fig.46 represents the complete geometricalisation of rhythm in the Icosahedron. This sequence shows the movement from rhythm to measure, from polyrhythmia to cadence, from difference to repetition. The rest of the constant flux would then redevelop following the sequence inversely, so that from cadence one is lead back into vital unrestricted rhythm.



Fig.47: Dynamic Outlines of Bodies. For source see Table of Figures pp.6-10.

Similarly to Bacon's drawings as analysed by Gilles Deleuze (see Chapter 5), Laban's compositions arise from a chaotic state and take form progressively. This first chaotic state is traceable in the drawings above and below (Fig.47-48).

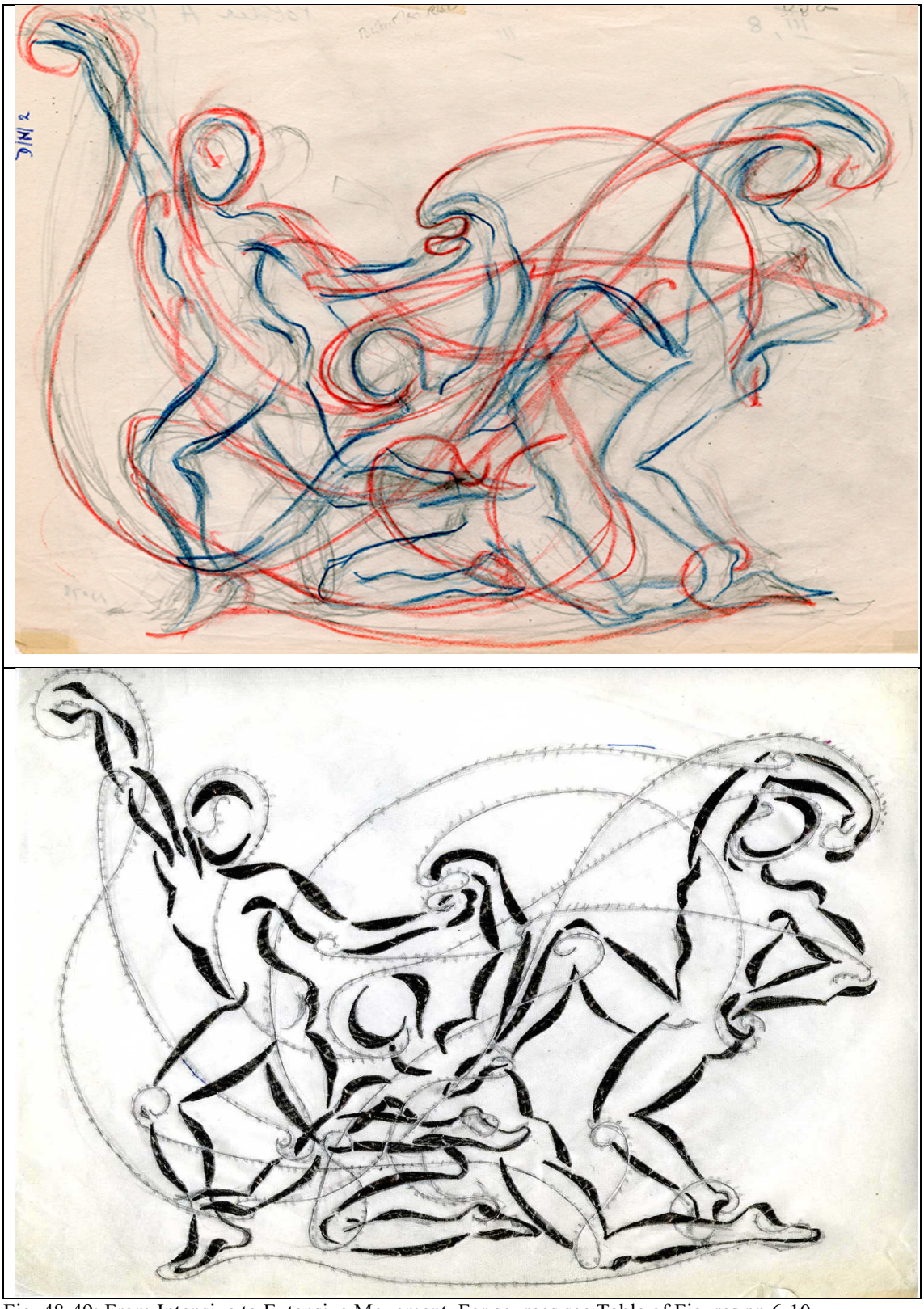


Fig. 48-49: From Intensive to Extensive Movement. For sources see Table of Figures pp.6-10.

In this stage (Fig.47-48), which is yet unformed what is more notable are the lines of movement which connect bodies and provide a vectorial understanding of dynamic space. This is the intensive ground from which geometrical figures arise in quantifiable space. Fig.49 presents us already with a metric representation of the same group of dancers: the lines that flew freely and continuous interconnecting flesh and space are now segmented and divided in measurable sections. The intensity of colour left space to a black and white stigmatization of life.



Fig. 50-52: Formation of an Ensemble. For source see Table of Figures pp.6-10.

In this sequence (Fig.50-52) the progressive materialization of bodies and movement in relation to geometry and structure is seen from the point of view of a group. Again, it is as if from the indistinct enmeshment of body/rhythm/movement, form is encapsulated first inside the structures of the bodies, freezing the ensemble and then exteriorized. This movement from intension to extension is the rhythmical genesis of form. Chaotic rhythm passes through *Takt* or cadence to give rise to the third moment, which sees the two together. From the topological intension, body and diagram emerge in a co-dependency. From the chaotic intermingling of bodies, movements, rhythms, something is inserted, a schema/frame/structure, a modulator which distorts the bodies, the geometry of it is underneath the skin of the body, it is erupting, screaming to come out, emerging from the abyss, to see the light. The third moment sees the Figures. The trace of the in-between moment, the diagrammatic, is there, visible. Laban calls this the trace-form. It is the diagram.

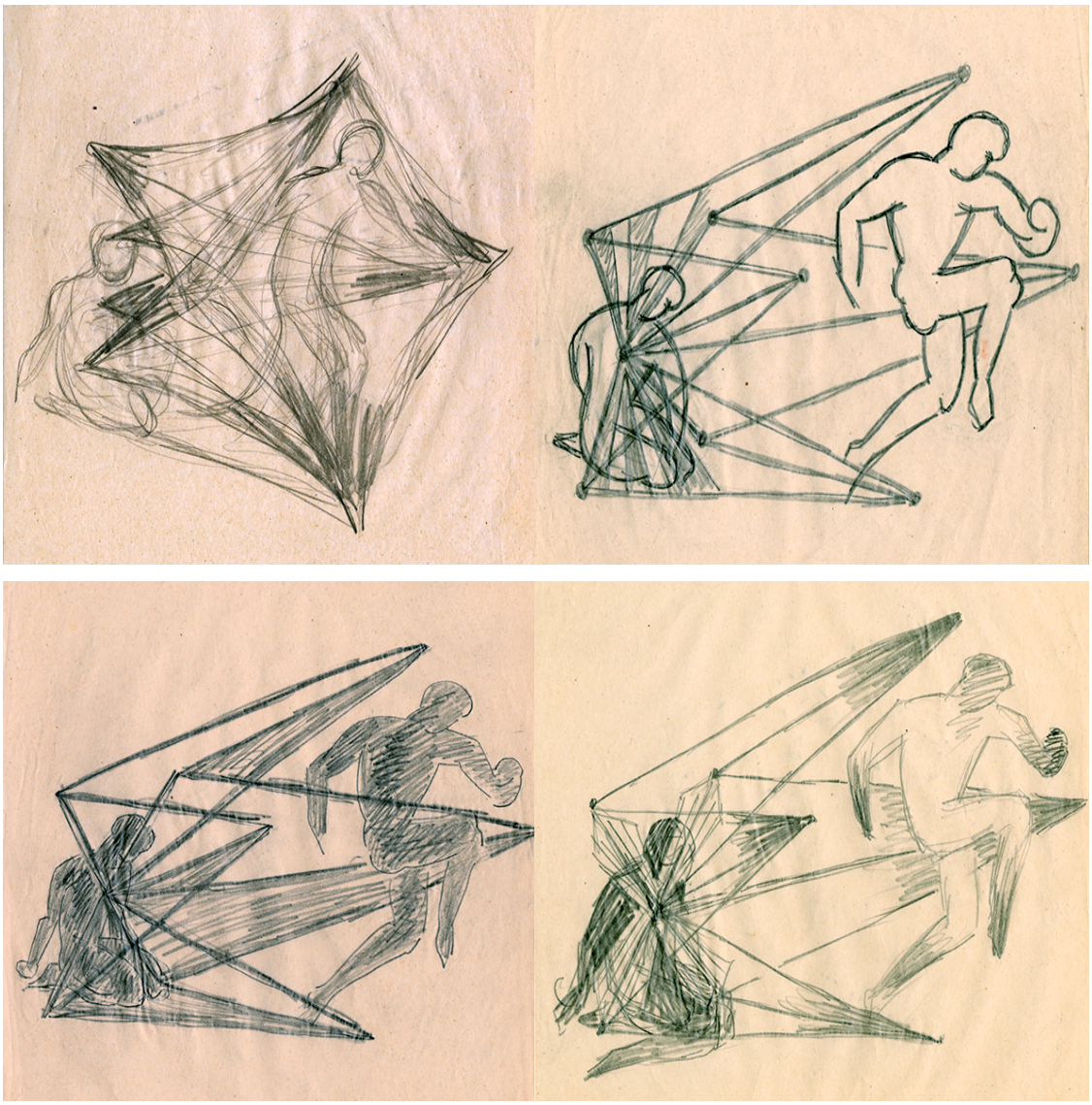


Fig. 53-56: Emergence of Figures and Structure. For source see Table of Figures pp.6-10.

In this sequence (Fig.53-56) the progression from intensive to extensive is in the foreground. What Laban's Kinetography could not grasp, that is, the fleeting nature of movement and its emergence from an indistinct, vectorial state, is instead discernible in his drawings. The first drawing top left is allowing for figures to appear still in the mud of forces giving birth to them. There is then a moment of clarity, extreme solidification, which leaves room for a condensation: here lines are still trespassing bodies; the final state has not frozen action yet. The last phrase is also still elaborating; something is coming out of the left figure's body, a tale, another figure. The crystal is active, has zones of condensation: it is a fraction of a long sequence of deformations. Although there are two figures, there is no narration, no story that connects them, as they are connected by lines/geometrical structure. As

in many of Laban's drawings, Laban posits Figures inside or on the border of geometrical constructs as if conscious that "isolation is the simplest means, necessary though not sufficient, to break with representation, to disrupt narration, to escape illustration, to liberate the Figure" (Deleuze, [1981] 2003, pp1-2).

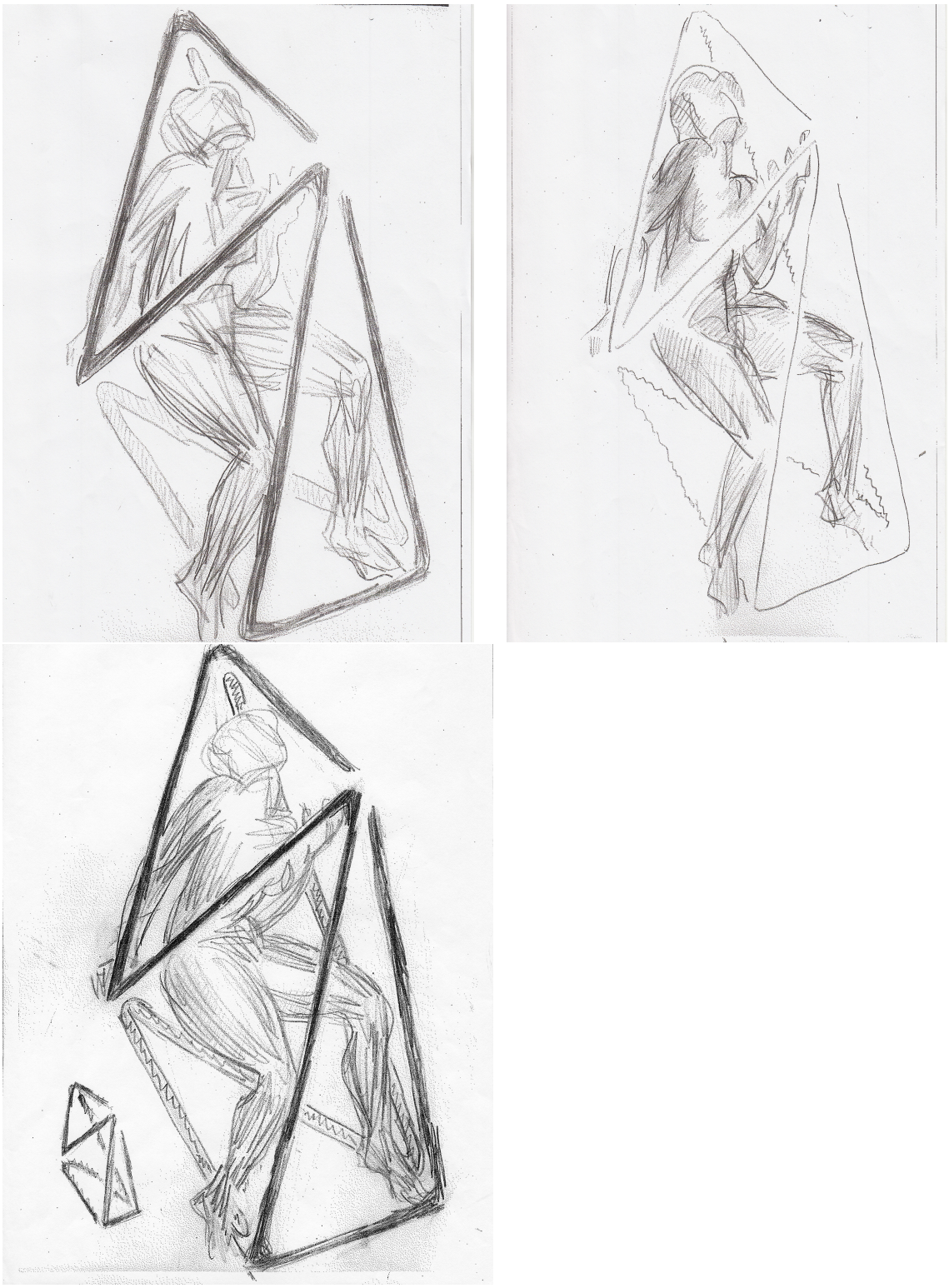


Fig.57-59: Formation of Additional Structure. For source see Table of Figures pp.6-10.

This sequence (Fig.57-59) shows the formation of an additional structure. The delineation of the lines is at first uncertain, the pose is one of prayer, or ecstasy, a fall or an ascension. The second movement here shows the intensive power of force in its acting as dilutor of contours. It is as bearing witness to a syncopation, a loss of definition, an indistinctness, which then takes momentum and doubles up in a second structure in the third moment.



Fig.60-63: Structure Formation Through Repetition. For source see Table of Figures pp.6-10.

The sequence above (Fig.60-63) repurposes the genesis of a structure (Fig.63). By the repetition of Figures in the same pose, Laban establishes a certain trace-form inscribed in the polygon.

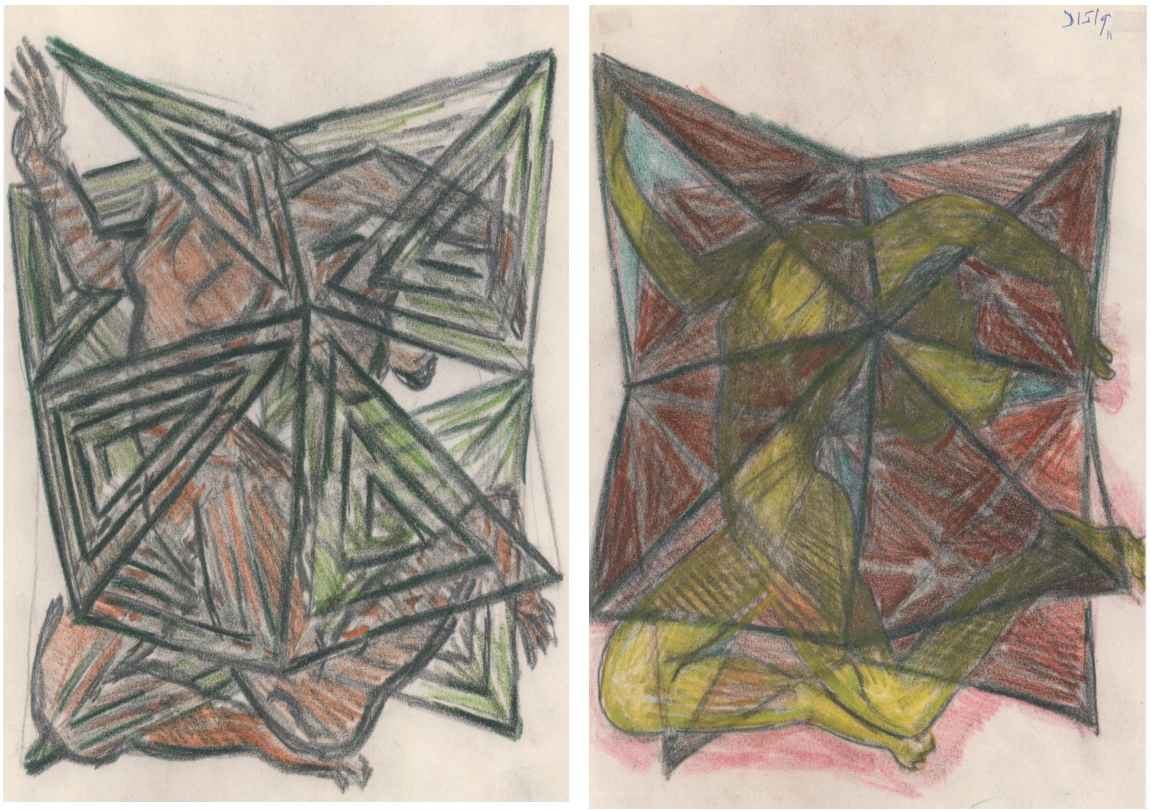


Fig. 64-65: Rhythm in Action. For source see Table of Figures pp.6-10.

In the first of these drawings (Fig.64-65) the structure and the body are two separate entities which are in the process of metamorphising one into the other. The process of crystallisation is taking place. The right hand of the dancer raised as if asking for help in the contorsion of the pose. The alternation between flesh and diagram is evident in the forefront: the right knee of the figurative silhouette geometricised, the left arm trapped in a structure resisting the spasm. The action of the Laban diagram is in front of our eyes, it is taking place, as a metamorphosis. The workings of rhythm are here present but we can see only the initial and final result. Something has happened in the second drawing of the dancer, there's a depth, an additional dimension, an intensity of colour which lack in the first of this movement phrase. Again, it is the action of a rhythmical force, a non-metric, intensive force which doubles dimension.

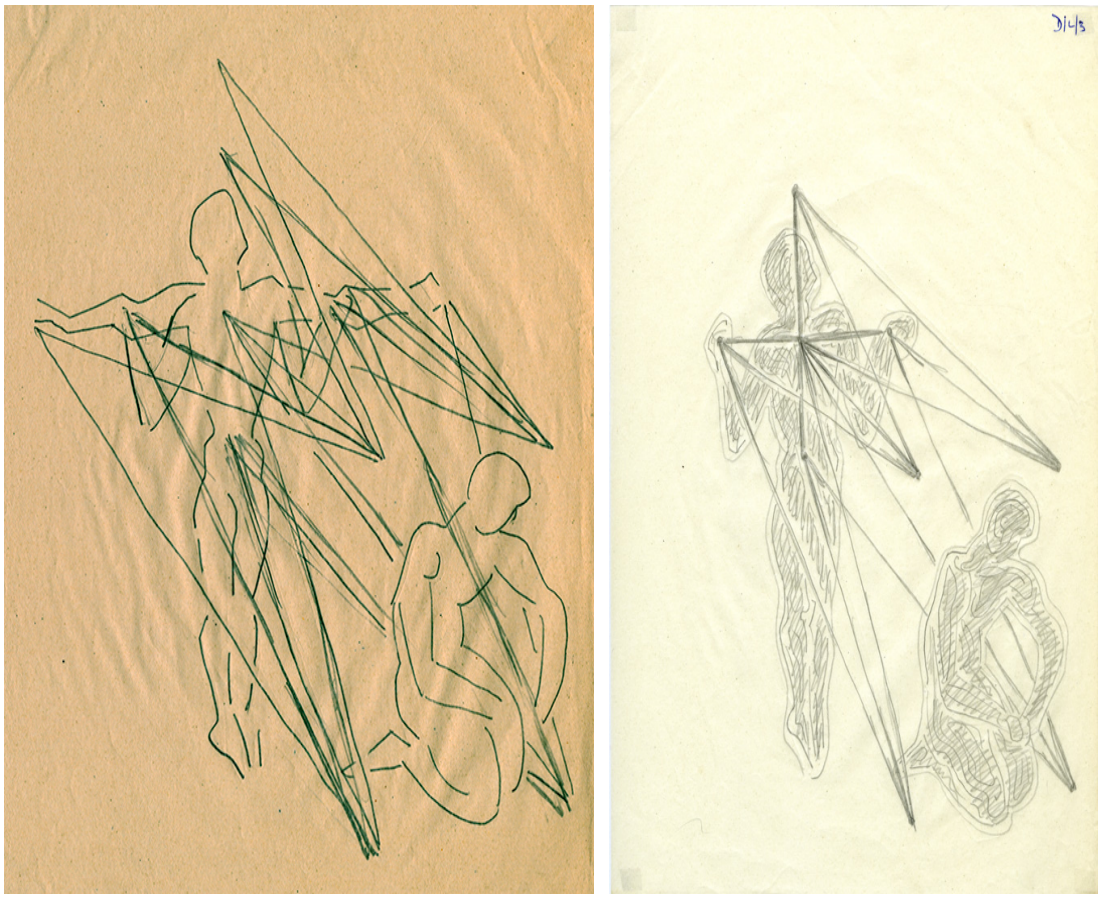


Fig. 66-67: Solidificaton of Figures. For source see Table of Figures pp.6-10.

Here there's another two-partite rendition (Fig.66-67). In the first study there's still uncertainty of both position of the figures (the figure on the left has four arms twostretched, two bended) and crystalline lines of direction. They are not settled, the diagram is still at work, in a state of disequilibrium. Bodies are not defined, they are permeable. The second moment is fixed, bodies are full, the crystal doesn't intersect them, is it a presence in-between them, stable. What is peculiar in Laban's hand drawings is their appearing in ensembles of two or more. Besides giving the impression of a series of snapshots, it can also be argued that they highlight the difference in the repetition, difference provided by the vibrational creative force passing through the ensemble of bodies and geometry. This is particularly useful in helping defining the action of rhythm in-between intensive and extensive space and time (Fig.68). In its actualisation into metric space, rhythm is in a process of becoming-measure or cadence from the intensive non-metric and topological realm of intensities that originates it. Never only virtual, not actual, the play of oscillation between form and movement is the 'essence' of rhythm. Equally, this renders possible speaking of the drawing as diagrams.



Fig.68: Lemniscate and Structure. For source see Table of Figures pp.6-10.

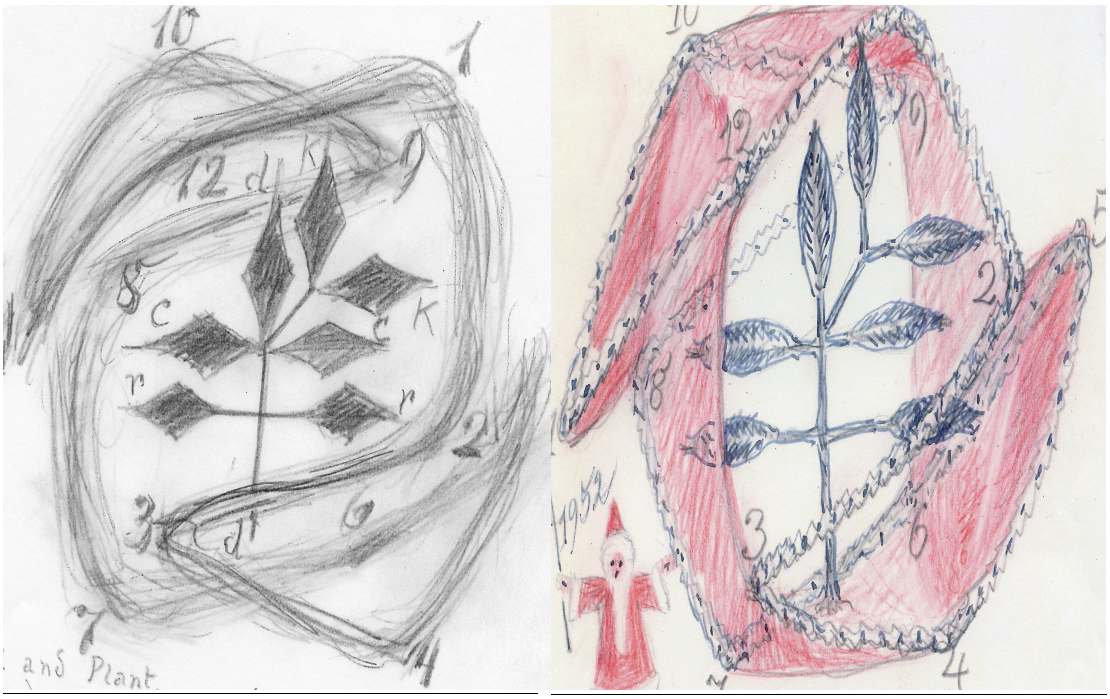


Fig. 69-70: Rhythm and Nature. For sources see Table of Figures pp.6-10.

Rhythm was for Laban the most fundamental phenomenon of nature, as drawings show (Fig.69-70). In these studies, the effort/rhythm graph and the lemniscate are metamorphosed into plant and, in a sketch for Sylvia Bodmer, Laban's pupil and mathematician. Laban's study of effort graphs in this more 'natural' setting shows that he was thinking of effort (and rhythm) as principles of nature, besides being also cultural (see Chapter 4).

Definitions of Rhythm

In his book on the English painter Francis Bacon Gilles Deleuze claims that "rhythm [is] the essence of painting […] rhythms and rhythms alone become characters, become objects" (xv). He further defines rhythm as a "vital power that exceeds every domain and transverses them all" (30) and as a synonymous of order (72)[36]. Similarly to Deleuze, Laban also refers to rhythm in terms of both difference and repetition, stating that 'the notion of recurrence in time is so prevailing that we overlook all the other rhythmical implications' (L/E/24/23). He adds that

[36] Deleuze discusses rhythm in relation to the concept of refrain in his book with Felix Guattari in *A Thousand Plateaus* ([1980] 1988). As the focus of the chapter is Laban's concept of rhythm as found in his hand drawings, further discussion of Deleuze's concept of rhythm is not undertaken here. See Further Work section in Chapter 7.

> rhythmical recurrence of resembling chance-happenings might delude our practical mind with hopes and beliefs of security. We think and feel' he continues, 'to swim in an uninterrupted and continuous flow of causally connected situations without perceiving the frightening leaps of nature' (L/E/25/49).

Laban is here referring to rhythm as repetition of happenings. On the other hand, he also sees discontinuity in the flow of existence as a source of novelty: "We never known which curious rhythm might break out like lightening from the chaos. There is hope!" (*ibidem*). Elsewhere Laban would refer to repetition and difference in relation to hope by stating that:

> The only thing that seems to be invariable is change (…) This is a most consoling idea. It is the base of hope, the base of striving, the base of the possibility of directing our intentions and our will towards aims (L/E/24/27).

As a consequence of quantum physics and the 'new mathematics', i.e. topology, rhythm is therefore both repetition and difference for Laban, that can be said to subscribe to an eventful rhythmic ontology (Goodman, 2010; Ikoniadou, 2014). "There is no obstacle'", states Laban,

> to our regarding time in the non-Euclidean sense (like space, for example as finite and returning upon itself (leminscatic field?)….rhythm is a – so to speak - plastical whole (see lemniscate). It is only our incapacity to embrace the whole, which induces us to explore the phenomenon bit by bit (sound by sound or arabesque by arabesque) (*ibidem*).

In Fig.71 rhythm is palpable in its shape. The Cartesian plane is stretched and bended into a sinuous transparent net, the ends of which are not to be discerned.

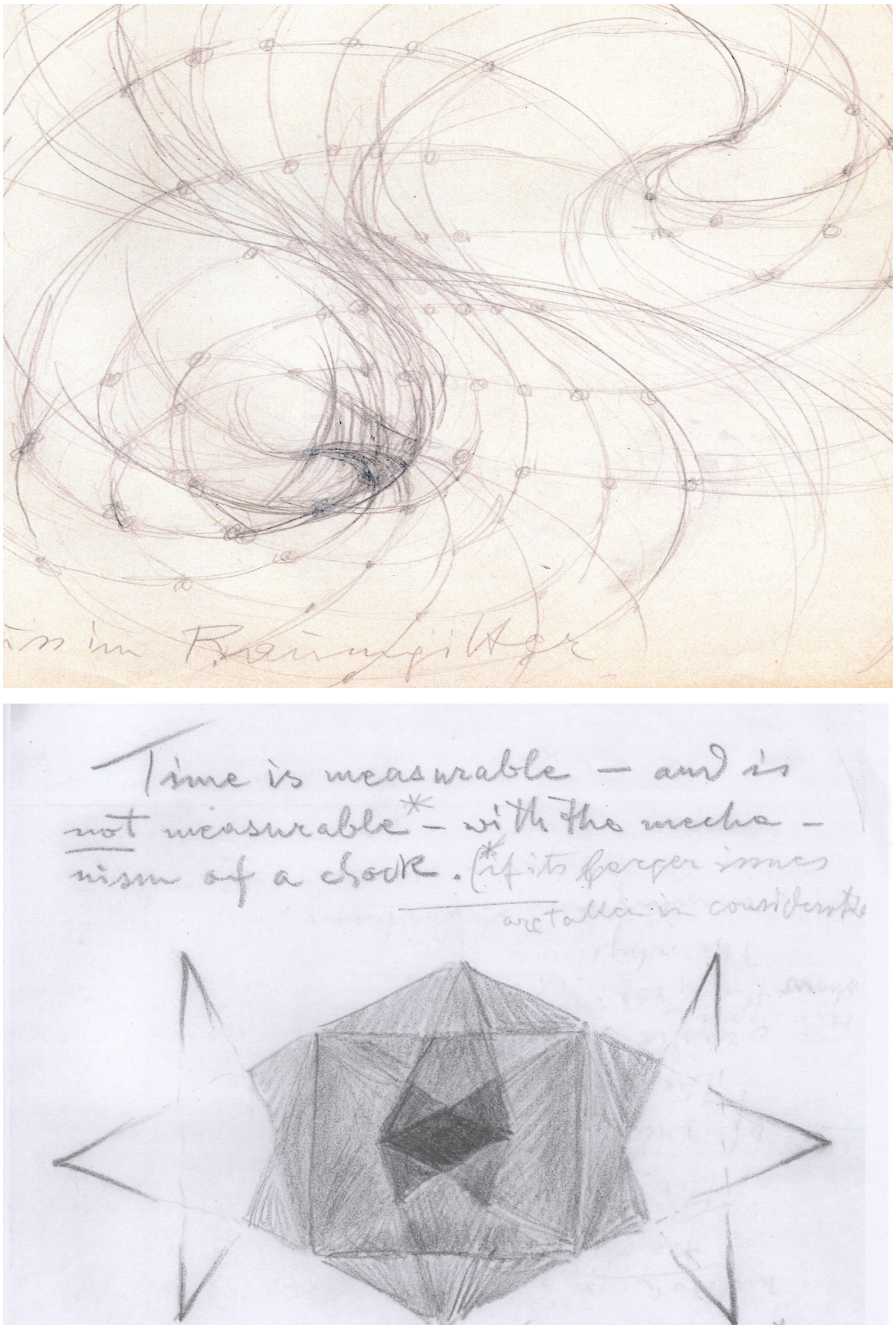


Fig. 71-72: (Top) Flux in Space-Frame; (Bottom) Time is Measurable and Is Not Measurable. For sources see Table of Figures pp.6-10.

In commenting on the 'new physics', Laban states that when magnitudes will be merged into the qualitativeness of a new mathematics (that is, topology), "a much more general world-view will then result". This will be one where "metrical rule will be merged into the rhythmical one" (L/E/25/49). Difference, moreover, is a result of the repetition of happenings. This sheds light on Laban's repetitive style in writing, as highlighted in Chapter 3, and also on his drawings. In fact, Laban's hand drawings show this repetitive character of his production, as will be shown below. In the repetition, something takes place, there is a dynamic of change that, contrary to what other commentators mentioned (Moore, 2009; McCaw, 2011) is not one of transformation, but deformation. Deleuze explains how transformation can be abstract and dynamic instead of deformation, which "is always bodily, and it is static, it happens at one place; it subordinates movement to force" (2003, p.42). The static nature of Laban's repetitive drawings underlines their deformative character.

Laban struggles in his writings to define rhythm, as we've seen in Chapter 4. In his graphic philosophy, however, this notion acquires further depth and its drawings, that are here claimed to be diagrammatic. The clearest definition of rhythm comes in *Effort and Recovery*, Laban's last unpublished manuscript held in the NRCD archive. Laban is here concerned with the topological aspects of bodies and space and states that

> In its essence rhythm is a non-metric entity. (…) Rhythm is one of the non-metric positional relationships which appear in variable sizes and shapes in functional movements. Rhythm cannot be abstracted from happenings in space and is always the result of successive changes of non-metric spatial relationships (L/E/56/10).

Going back to Laban's concern with intensities and non metric qualities, from this definition of rhythm it can be evinced that Laban thought of rhythm in the last stages of his career, as both a topological, non-metric phenomenon, and as meter. This is evident from Fig.72 above, where Laban states that "time is measurable and is not measurable (if its larger issues are taken into consideration) with the mechanism of a clock".

Chapter 7 - Conclusion: Rudolf Laban Philosopher and Practitioner

> 'To put oneself into the mood of creating something, especially if this has to be done as a kind of task, is by no means equally easy for everybody. One has to see, hear, or imagine the rhythm and one has to select from the great manifold of such possibilities, that which suits us, and which we feel able to accomplish. One has to get to it and to struggle with the completion and one has also to think of how to present it' (Laban, 1957, L/E/34/57).

Contributions of the Thesis

The aim of the thesis was singled out in the introduction as a re-evaluation of Laban's work in the light of contemporary media philosophy focussing on the notions of rhythm and the diagram. The project aimed to investigate to what extent Laban's diagrammatics and rhythmology might offer an insight into the ancient conundrum of the relation of movement to structure. In this context, the thesis pointed out the contribution brought about by Laban as practitioner to fields of theoretical knowledge. This was identified in Laban's highlighting of a co-dependency between rhythm, intended as formed time and, the diagram, intended as dynamic space. As suggested by the analysis of Laban's hand drawn sketches in Chapter 6, the dynamism of the visual diagram originates from the intensity of rhythm before this settles down as meter and form.

The project's contribution to the field of Laban studies is provided by an in-depth analysis of the concepts of rhythm and dynamic form throughout Laban's life and, in particular, in the English years (1938-1958). This is based on Laban's unpublished visual and textual work as found in the National Research for Dance archive in both German and English language. Moreover, the project reframes Laban's work on the background of philosophical literature on the theme of movement and structure with a focus on Laban's contribution to these debates. Laban, as Wassily Kandinsky, Emile Jacques-Dalcroze and Rudolf Bode, is among those very few artists and practitioners that theorised on their praxis. Moreover, his attempt to work out Bergson's concept of *élan vital* in relation to effort (see Chapter 4 and 6) and other references found in his private notes (see Chapter 4) show the degree to which his practice was in dialogue with theoretical debates also outside of the discipline of dance studies. In this sense, the project aims to be a contribution to current discourses focussing on the relation of performance to philosophy and, more generally, the value of practice to theory.

The thesis proposed a first step towards the implementation of a diagrammatic methodology deriving from theory of the diagram explored in the thesis. This is a contribution to current debates in research methodologies in the humanities and social sciences.

Overview and Analysis of the Chapters

In order to place the above contributions and the theme of the relation of structure to movement in a wider historical and socio-cultural landscape, Chapter 2 investigated the development of the notions of rhythm and diagram in Laban's life and work. The chapter traced his interest in the relation of movement to structure as his interest in 'moving form' or 'moving image' and in rhythm from the onset of his career in theatre and painting, until his project of creation of a 'language of movement'. The reconstruction of Laban's life in the light of the main themes of the thesis was aided by unpublished material in the archive and, in particular, by two excerpts in German that shed light on Laban's personal thoughts on Nazism after WWII. A unique contribution to a vexed question in Laban's scholarship, this section highlights a connection between politics and rhythm. Laban rejected Nazism on the grounds of a conception of rhythm that he found limited, because not taking into account the alternation of its intensive and extensive nature. Although in need of further investigation (see Further Work section below), this section underscores the importance of rhythm and the importance of further analysis of this notion, anticipating in this way Chapter 4.

Looking at Laban's life and work also highlights the development of his interest in the dynamics of form and in the 'bewegtes Bild' [moving image]. A particular focus was given to Laban's rejection of film as methodological tool. An unpublished document shows the degree to which he seemed to consider film as compatible with dance in 1926. However, he continued devising notation systems and, in his private notes, drawing and diagrams as a way to approach movement and rhythm. This helped strengthening the claim that Laban found that diagramming provided him with something that other technologies of his time, such as film, did not, in terms of the study of movement. Moreover, highlighting in which ways Laban was thinking of rhythm throughout his career helped to show how it is possible to say that rhythm is the key notion in Laban's

work. This chapter exposes the impact of the unpublished documents held in the NRCD archive and provided a rationale for further investigation of it.

Chapter 3 offered an overview of the NRCD archive, where the unpublished material informing the thesis is hosted. The chapter exposed the difficulties encountered during the process of research, especially those linked to the retrieval of files and to the shortcomings of the current taxonomy. The peculiarity of the archive was individuated in its being a movement-archive, that is, the archive of a movement practitioner and thinker. In this sense the methodology utilised to rearrange the archive material was born from the need to find a tool, which would maintain part of that movement. Inspired by Laban's own methodology, that is diagramming, and by the theories of the diagram explored in Chapter 5, the process of rearrangement of the material was aided by a diagrammatisation of the archive.

Sketching out Laban's life and work in Chapter 2 provided a point of entry into Modernism and Laban's cultural influences, such as those of Friedrich Nietzsche and Henri Bergson, but also developments in the field of technology, such as cinema and industry. This was the focus of Chapter 4, which introduced debates surrounding the notion of rhythm in Modernity and, in particular, the definition of Laban gave of rhythm in the early 1920s. The presentation of Laban's rhythmology was carried through by way of a comparison with Rudolf Bode's concept of rhythm. Laban and Bode were rivals in their professional life and they had different approaches to the notion of rhythm. Seen in antithesis to that of Bode, Laban's rhythmanalysis appears as an in-between qualitative and quantitative. This is evident in an early text from 1921, in which he describes the multifaceted aspects of rhythm. Translated here for the first time, this text provides a picture of the complexity of Laban's early rhythmology or rhythmic ontology. Laban provides a sample of his polyrhythmic approach by referring to Ur-rhythm, everyday-rhythm, personal-rhythm, what he would later in the 1950s call 'micro-rhythmicalities' composing the flux of existence. Laban also refers to the methodology that one should utilise in order to approach rhythm. This, he maintained, can not be a 'schematic-quantitative principle', which is not apt to investigate the qualitative aspects of rhythm. Laban doesn't explain what methodology he had in mind, but his *ouvre* shows that it was a graphic methodology. For this reason, it was necessary to explore his project of a 'language of movement' and the different forms that it took.

Chapter 5 proceeded to expose Laban's graphic philosophy on the basis of his unpublished notes and his project of a 'language of movement'. The latter was born from Laban's struggle to get to grips with the representation of movement and rhythm without doing away with their processual nature. This difficulty was faced by the author in terms of the understanding of the relation of movement to form at different levels, that is, both theoretical and practical. On a practical level, it gave birth to his systems of notation (analysed in Chapter 6), which operated as an antidote to the shortcomings of language for the analysis and description of bodily movement. This is because they are based on an understanding of the dynamics of graphic inscription, which will later on in the chapter be argued to be diagrammatic. On a theoretical level, Laban takes a position in-between what he refers to as 'Gestalt' philosophy, which, he maintains "puts such great stress on the form or rather on configuration", and Existentialism, which, for Laban "denies the living importance of configuration" by overemphasising flux (see p.87). Read in relation to critiques of structuralism such as those brought forth by Jacques Derrida and Gilles Deleuze and mentioned in the introduction and in Chapter 5 of this project, Laban's approach to structure seems to anticipate this trend and his philosophy and practice should be understood as partaking of this current of thought's attempt to understand force as radical power of change in representation. This is argued on the basis of the above evidence and also Laban's graphic philosophy itself, which develops from an understanding of the dynamics of intensive and extensive space.

In the second part of Chapter 5 the relation of movement to structure is analysed from the point of view of the diagram through the philosophies of C.S. Peirce, Gilles Deleuze and Gilles Chatelet. These authors are the most representative exponents of theories of mediation focussing on the diagram and they provide theoretical tools to explore and define Laban's diagrammatics in Chapter 6. The diagram is here intended as a graphic inscription, in line with works of commentators Frederik Stjernfelt, Sybille Kraemer, Susanne Leeb and John Mullarkey, and contrary to more abstract approaches (see Vellodi, 2014). This suits the attempt to create a dialogue with Laban's notational systems and methodology, which forms part of the aims of the thesis.

Peirce's definition of diagrammatic thinking and his understanding of the diagram as heuristic device are explored through his text *Prolegomena to an Apology of*

Pragmaticism ([1906] 1933). Peirce claimed that diagrams were functioning as scientific tools for the attainment of knowledge and truth because they allowed for operations (be these mental or manual) to take place on them. In this sense, Kraemer is able to state that they operate as a linkage between the noetic and the aesthetic (2010). Gilles Deleuze's approach to the diagram as found in his book and lectures on drawing and Francis Bacon ([1981] 2003) starts from a critique of Peirce's scientific and representational approach and develops a notion of diagram that relies on what the French author defines as 'aesthetic analogy'. In stressing the power of difference upon repetition, Deleuze understands the diagram as a modulator of reality that, with its deformative power, unsettles narrative and common logic in painting. Gilles Chatelet's project of a return to a gestural and corporeal mathematics addresses the relation of structure to bodily movement, and understands graphic inscriptions as able to store the dynamics of gesture and release them again through interaction. In this way problems and knowledge are reactivated through movement. These different approaches to the diagram resonate with Laban's work and allowed to better understand the peculiarities of Laban's own diagrammatics, discussed in the following chapter.

Chapter 6 started by presenting an analysis of Laban's known graphic systems of notation: Kinetography, Choreutic models and effort graphs. Attention was given to the way in which they could be said to be diagrammatic and the way in which they could be said to express rhythm with results that can be summarised as follows:

1) Kinetography, in its 1928 version, is found to express rhythm as meter and it does not come through as diagrammatic. However, it is shown that Kinetography itself was for Laban a 'painful compromise', in that vector signs had to be replaced by end positions.
2) Choreutics is described as an attempt to come to terms with both internal (dynamospheric) and external (kinespheric) movement. Laban's utilisation of perfect Platonic Solids for the understanding of the kinesphere, that is, the outward space that can be reached by the limbs of a human body standing, expresses a movement that is harmoniously rhythmical. Laban's difficulties in inscribing dynamospheric or eukinetic aspects of movement in harmonious solids is shown to rest on his understanding of the intensive qualities of affects, something that brings him to devise a whole new notation for the rhythm of internal efforts. However, kinespheric

solids show a degree of diagrammatic qualities as found in Chatelet's work. In fact, as utilised by dancers, kinespheric forms can be thought of in terms of reactivation of knowledge.

3) Laban's more in-depth exploration of rhythm in his notations is to be found in the effort graphs. These are non-representative (not based on similarity with their object) and are constituted by vectors, whose combination expresses rhythm-drives and polyrhythmic compositions of qualitative nuances of movement and inclinations towards the motion factors of space, time, weight and flow. Effort graphs are described as Laban's attempt to come to grips with the intensity of effort and rhythm. Moreover, Laban also uses them in between text to express meaning without words.

An analysis of Laban's hand drawings from the point of view of diagrammatics and rhythm highlights the following results:

4) The dynamics of rhythm and dynamic form are best visible in Laban's hand drawings found in the archive. It is argued that it is in the drawings that Laban investigates the phenomenon of rhythm and dynamic form further and where it can be best understood. Laban's hand drawings show the workings of what with Peirce can be called diagrammatic reasoning. Moreover, they present themselves as embodied explorations of mathematics and geometry, something that resonates with Chatelet's approach to diagrammatics. Finally, what is noticeable is a tendency towards repetition and deformation in Laban's drawings. Laban reproduces ensembles of figures and geometrical structures repetitively and this highlights different stages of a process of deformation and of birth of change: it is here that rhythm's nature comes to the fore. Laban's understanding of rhythm in terms of repetition and difference is also found in his unpublished texts that are here put in dialogues with the diagrams. This highlights an aspect of the diagrammatic, which resonates with Deleuze's philosophy. The deformative force of time and intensive rhythm is the 'germ' of difference in repetition.

What emerged from this analysis is a definition of Laban's graphic philosophy in relation to his rhythmology and diagrammatics. Laban utilised graphic inscriptions with different aims and the multifaceted nature of Laban's diagrammatics comes to the fore in Chapter 6. The analysis of his work carried through in the present project highlights, in

terms of philosophical approaches to diagramming, the inclusive character of visual diagrams. In fact, they are devices through which Laban thinks and through which notions such as rhythm can be investigated in a non-verbal way, that is, by way of an 'analogical language'. The act of diagramming stores and reactivates knowledge and understanding in Laban's hand drawings by way of tracing. Moreover, Laban's diagrammatics underscores the importance of time in relation to diagrams and, particularly, of rhythm, intended as both intensive (duration) and metrical.

This project started as an investigation of the relation between movement and structure. Thanks to an AHRC scholarship, it was decided to focus on the work of Laban and the NRCD archive, with the aim of understanding in which ways this might shed light on this relation. It was hoped that, having devised different systems of notation of bodily movement, Laban's notes and work in-progress could provide an insight into whether a practitioner's point of view might help clarifying theoretical issues.

It was found that Laban was as much a practitioner as a theoretician and that his notations were a practical attempt to address precisely the relation of representation, or static form, to the dynamics of bodily and affective movement. Moreover, it was discovered that Laban thought of movement and structure as interrelated and that his investigation focussed on dynamic form in terms of spatiality and on rhythm in terms of temporality. As shown in Chapter 4 and 6 Laban thought of time through rhythm in both a quantifiable and not quantifiable way and addressed the relation of movement to form also in a philosophical way. The richness of Laban's contribution is also to be found in his notation systems and, even more evidently, in his hand drawings, where the dynamics of space and the form of time take different shapes. Laban's studies are valuable in relation to current debates in media philosophy, as they highlight the co-dependency between space and time, diagram and rhythm when thinking of structure and movement.

Ideally, the present work would address Laban's work as found in other archives both in the UK and abroad (see Chapter 3). Further research in other archives would provide a more detailed understanding of Laban's early work on dynamic form and rhythm from the 1910s till 1938 and the gradual development of these concepts. Chapter 2 is an attempt to cover this gap by analysing this aspect through published primary and

secondary literature. Laban's German books written in the 1920s (1920; 1926a; 1926b) have also not been explored in the current thesis. *The World of the Dancer*, written before the text published in the journal *Die Tat* and translated here, and the other two monographs, published in 1926, might shed further light on how Laban was thinking of the relation between dance, gymnastics and rhythm in relation to education. Moreover, the present work did not explore how Laban's own choreographies and movement choirs might mirror his understanding of dynamic form and rhythm or might have helped in its development. This work would entail a reconstruction of Laban's early dance pieces with a focus on rhythm and dynamic form. Finally, Laban's material highlighted interesting intersections with current debates in the cognitive sciences and phenomenology and in the field of body studies, which could not find a place in the present project. Laban's focus on the primacy of movement in relation to cognition and his reference to a 'language of deeds' (see Chapter 5) resonate and anticipate current research, such as that of Maxine Sheets-Johnstone (2009). At once a dancer and philosopher, Sheet-Johnstone's interest in the primacy of movement and cognitive science's interest in it can be said to be anticipated by Laban's work in the 1950s[37].

Further work

Further work in the NRCD and other archives is needed for a more detailed understanding of Laban's rhythmology. The Warren Lamb archive, which the NRCD recently acquired, and the newly catalogued archive of the John Hodgson collection at the University of Leeds also potentially contain material, which could help with furthering the understanding of a study of the relation of movement to structure in Laban's work. Bringing together the material of the archives in the UK, Germany and France would allow for a deeper understanding of Laban's work and enhance its impact inside and outside of Laban studies. Considering the current interest in digitalisation of archive documents, it would help to develop a common platform for the sharing of Laban's material across archives[38].

The relationship of Laban's work with that of key intellectual figures of his time should also be further investigated. Laban's references to Henri Bergson have been highlighted in different places in the thesis in relation to unpublished material retrieved. It was

[37] See also Maletic's text on Laban and the phenomenology of Maurice Marleau-Ponty (1987)
[38] Part of the material of the NRCD is already online at: http://www.dance-archives.ac.uk.

shown how archival documents allow to make a connection between Laban's effort theory and the French philosopher's notion of *élan vital* (see Chapter 4) and how Laban, referencing Klages and being in a dialogue with Bode, was actually confronting himself with Bergson's philosophy of time. In some respects, Laban's philosophy seems to be a practical experimentation with philosophical concerns inspired by Bergson. Furthering this exploration would entail an in-depth investigation of Bergson's philosophy from the point of view of Laban's work.

Laban's concern with rhythm and his notion of it anticipates later treatment of this phenomenon, such as those found in the philosophy of Gilles Deleuze and Felix Guattari in that he thinks of it as both non-metric and metric. In *The Machinic Unconsious* (2011) Guattari quotes Ludwig Klages on rhythm in relation to his discussion of the refrain (2011, pp.146-147). As noted in Chapter 5, Gilles Deleuze and Felix Guattari explore time as rhythm not only in relation to painting (Deleuze, 2003), but also more generally through the concept of repetition and difference entailed by the 'refrain' ([1980] 1988). Philosopher and historian Pascal Michon mentions the work of Laban along with that of Paul Valery, Henri Bergson, Gaston Bachelard as of pivotal importance for the study of rhythm (2005). He reminds us that "Laban and Schlemmer", the well-known Bauhaus artist operating at the same time as Laban, "fuelled discussions about the notion of rhythm in between the two wars" (Michon, 2005, p.413. My translation). It is possible, considering Laban's engagement with French academia that these discussions percolated into France at different levels, both artistic and theoretical. In this sense the work of Laban could constitute a pivotal missing link between these two traditions. Moreover, the potential of Laban's rhythmanalytical methodology as found in his effort theory and effort graphs and in his notes has been almost completely overlooked (although see Reynolds, 2007). In relation to discourses focusing on rhythmanalysis, such as those mentioned above, which are inscribed in the tradition of debates between Gaston Bachelard ([1936] 2000) and Henri Lefebvre ([1992] 2004), Laban's rhythmanalysis is of particular interest, because it addresses rhythm from a practitioner's perspective and provides methodological tools to analyse it diagrammatically.

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