

# CHAPTER 04

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## MOVEMENT ANALYSIS

In rhythmic waves regularly spreading, the ether trembles, the small, most minute particles of matter tremble. If there were no movement at all, all things would be lying dead in absolute rigidity and complete apathy. No ray of light, no sound would bring messages from one thing to another.

... Movement not only speaks through an objectt; a living organism owes its final form to it; movement leads to growth and structure ...

- Rudolf Laban

## A BRIEF HISTORY OF DANCE NOTATION

Attempts at devising a movement notation system have been made for at least the past five centuries, with the earliest recorded manuscript dating back to the second half of the fifteenth century. Since then, several notation systems were formulated, of which a few were published and popularly used for a while, however, as the development of dance progressed, these systems became outdated and consequently fell into



in space (Moore 2009:i).

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disuse. It is not surprising that the development of dance notation has undergone so may false attempts, as it requires three fundamental elements – the system should be able to accurately record all forms of human movement, it should be easy to read, record and understand, as well as be able to depict movement in space as well as in time (Davies 2006:6, Guest 2005:1).

Figure 4.1 The architectural element of movement, forms of movement created

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#### Letter Codes

One of the first dance notation systems, was the use of 'Letter Codes'. This device employed words and/ or word abbreviations for the names of steps, written descriptions and accompanying figure illustrations that was utilised for close to 200 years, but was limited in the reading and understanding thereof as it expected the reader to have an already existing knowledge of the steps (Guest 1989:34, Guest 2005:1-2).

L'Art et instruction de bien dancer was the first printed book using this letter code system and was published in France in the late 15th century (Guest 1989:36).



Figure 4.2 L'Art et instruction de bien dancer (Guest 1989:36).

Burgundian manuscript, otherwise known as The Dance Book of Margaret of Austria, ca. 1450, can be found in the Royal Library in Brussels (Guest 1989:37).

The Catalonian manuscripts, in the municipal archives in Cervera, Spain, provides the Letter Codes above the symbols (Guest 1989:38-39).

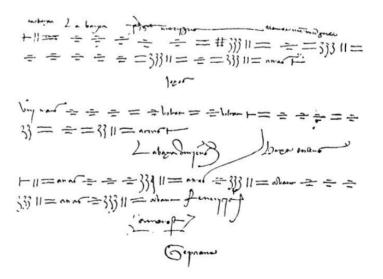
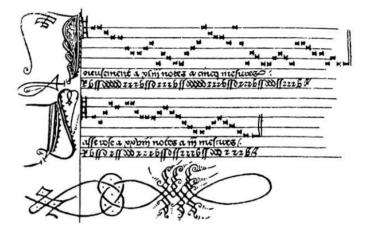


Figure 4.4 Cervera Manuscript, late 15th century (Guest 1989:38).



*Figure 4.3 The Burgundian manuscript* (Guest 1989:37).

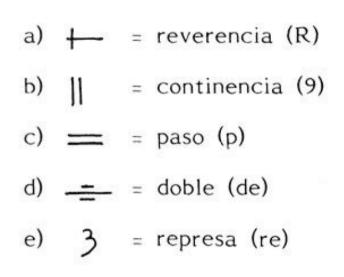


Figure 4.5 Spanish names providing the meaning for the symbols (Guest 1989:39).

The most famous book of this period, Orchesographie by Thoinot Arbeau, published in 1589, gives a detailed description of the steps to be performed, as well as the prescribed etiquette for men and women on the dance floor. Unfortunately, this method was only understood by those familiar with the steps and proved insufficient for future generations to accurately reconstruct the steps and style of the dance (Guest 1989:40-41).

#### Figure 4.6 Orchesographie (Guest 1989:41).

The English Dancing Master, a collection of dances notated using this method, published by John Playford in 1651 (Guest 1989:42-43).

#### ORCHESOGRAPHIE. ET TRAICTE EN FORME DE DIALOGVE, PAR LEQUEL TOVTES PERSONNES PEVVENT facilement apprendre & practiquer l'honneste exercice des dances

Par Thoinot arbeau demeurant a Lengres

Eccle. 3 Tempus plangendi, & tempus faltandi.



Imprimé audict Lengres par Iehan des preyz Imprimeur & Libraire, tenant fa boutique proche l'Eglife Sain& Mammes dudict Lengres. M. D. LXXXIX.



#### Note: The firft Strain is to be play'd twice, and the laft but once.

The first Man Sett to the fecond Wo. then Jump round S, the 2d. Man do the fame with the first Woman. The first Man change places with the 2d. Wo. and the 2d. Man do the fame with the first Wo. then Hands all Four half round, and Right and Left quite round, then Foot it and Jump. First couple cross over and go quite round, into the 2d. couples place, the Man on the Woman's fide, then first Man Arms round with the 2d. Woman, and the 2d. Man do the fame with the first Wo: at the fame time 3 then Arms with your Partners, then Foot it all and Jump.

Figure 4.7 A score from The English Dancing Master (Guest 1989:43).

La Danse Classique by Antonine Meunier, a 20th century rendition of the Letter Code system, published in 1931 (Guest 1989:43-47).

> ANTONINE MEUNIER DE L'OPÉRA

### LA DANSE CLASSIQUE

(ÉCOLE FRANÇAISE)

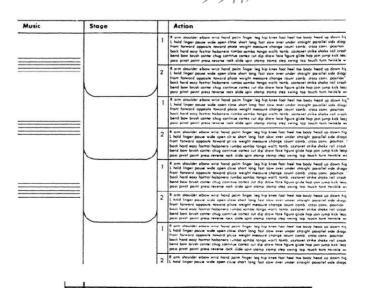
FIGURES STÉNOCHORÉGRAPHIE – DICTIONNAIRE

Préface de CHARLES BOUVET

94 Illustrations

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Figure 4.8 Title page of La Danse Classique (Guest 1989:44).



Ider(elbow) wrist hand palm finger leg hip knee foot heel wide open close short long fast slow over unde site toward place weight measure foxtrot habanera rumba samba tango waltz ti and bow brush canter chug continue cortez cut dip draw face figure ass pivot point press reverse rock slide spin stamp stomp step swin

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### Figure 4.9 Variation from Romeo & Juliet using the Meunier System (Guest 1989:47).

Danscore, by Richard Drake Saunders, a Letter Code system used as device for quick note taking, was published in 1946. The sheets contained dance terms for various dance styles, where dance sequence is captured by the circling of appropriate terms in the correct order. This method proved to not be as quick and efficient as originally thought and was, once again, only understood by the dance community (Guest 1989:48-50).

Figure 4.10 An example of Saunders' Danscore (Guest 1989:49).

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#### Track Drawings

The progression of dance that flourished in France, at the Court of Louis XIV, in the 17th century brought about the invention of the 'Track Drawing' method that traced the path and specific steps of the dancers, capturing the design made on the floor that held special significance related to metaphysical ideas. While this notation system was very well constructed and essentially formed the foundation of classical ballet as we know it today, it purely recorded footwork with no indication of rhythm, and while it served

the period and dance for which it was devised exceptionally well, it was neglected at the start of the 19th century, as this specific dance style gradually became outdated (Davies 2006:6, Guest 1989:53, Guest 2005:2).

Nobilità di Dame in Caroso's book of 1600 depicts the famous rose pattern of the contrapasso, according to the true mathematics based on the verses of Ovid (Guest 1989:53).

Beauchamp-Feuillet system, developed by leading dance masters in the 17th century, published Chorégraphie ou l'art de décrire la dance in 1700 (Guest 1989:54).

## RECUEIL DE DANCES, COMPOSE'ES

Par M. PECOUR, Penfionnaire des menus Plaifirs du Roy, & Compositeur des Ballets de l'Academie Royale de Mufique de Paris.

Et mises sur le Papier Par M. FEUILLET, Maitre de Dance.



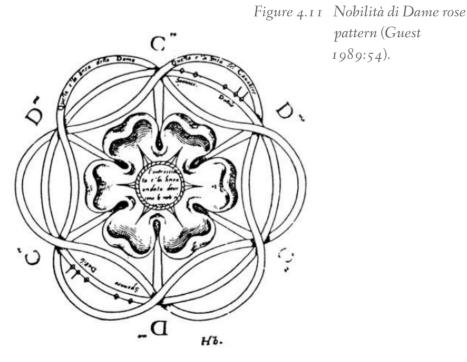
A PARIS, Chez l'Auteur , rue de Buffi , Faubourg S. Germain , à la Cour Imperiale. Et chez MICHEL BRUNET, dans la grande Salle du Palais, au Mercure galant. M. DCC. AVEC PRIVILEGE DU ROT.

Figure 4.13 Title page of Recueil de Dances (Guest 1989:57).

The Beauchamp-Feuillet system was utilised by leading ballet masters of the time such as Pecour, and yearly publications of collections of dances were composed in France from 1700 to 1712 (Guest 1989:56-58).

#### CAROSO DELLA NOBILTA DI DAME LID. II. 141

IL CONTRAPASSO FATO CON VERA MATHEMATICA d' Ouidie I, METTI Sopra



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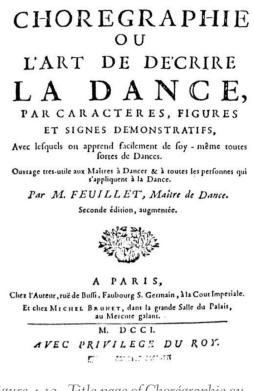


Figure 4.12 Title page of Chorégraphie ou l'art de décrire la dance (Guest 1989:55).

la Bourée d'Achille

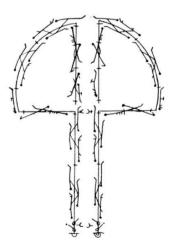


Figure 4.14 An example of Feuillet notation (Guest 1989:58).

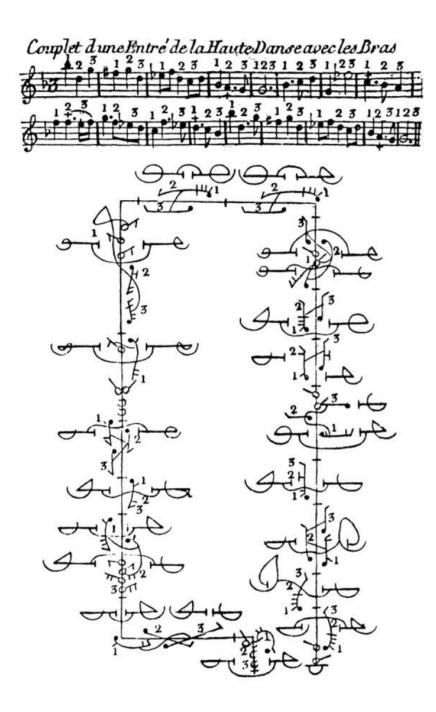
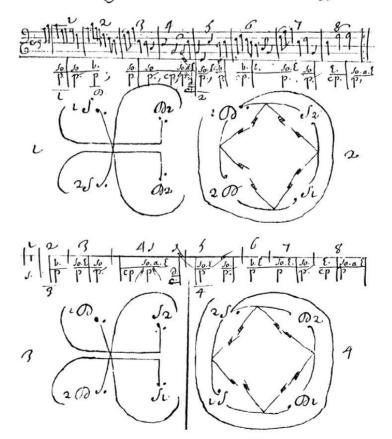


Figure 4.15 Example of arm movements from Malpied's Traité sur l'art de la dance, using the Beauchamp-Feuillet system (Guest 1989:67).

André Lorin, in his book Livre de Contredance, was the first to introduce the English Country Dances to France, published ca. 1688 (Guest 1989:70-73).

Figure 4.16 Extract from Livre de Contredance (below) (Guest 1989:73).

Auc de Chartre; the next bath; Le bain neuf;



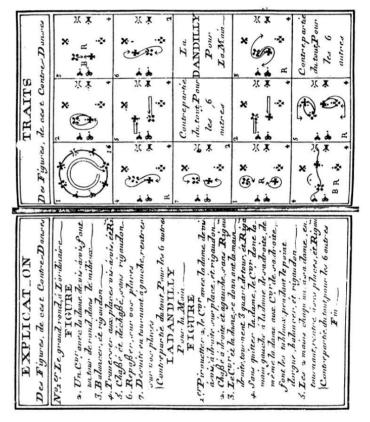


Figure 4.17 La Jamaique et la Dandilly Contredanse by Landrin (above) (Guest 1989:75).

La Jamaique et la Dandilly Contredanse and the 'La 1770', a Contredanse Allemande, in one of the collections published by the French dance master, Landrin, between 1768 and 1785 (Guest 1989:74-76).

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#### Stick Figure (Visual) Systems

The following notation system came about in the form of visual or pictorial stick figures depicting the multitude of arm and leg positions that focused on illustrating move-

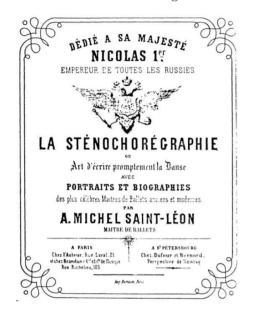


Figure 4.18 Title page of Sténochorégraphie (Guest 1989:75).

Figure 4.19 Arthur Saint-Léon (Guest 1989:75).

ment visually. This system emerged in the middle of the 19th century, with Arthur Saint-Léon publishing his book called Sténochorégraphie in 1832 (Guest 1989:79-82).



The notation system comprised a staff, in which the arms, body and head movements are depicted in a single upper line, while the leg movements are shown below on a five-line staff as well as the use of symbols with music note values to clarify timing (Davies 2006:6, Guest 1989:99, Guest 2005:2).



Figure 4.21 Excerpt from Cavalier's solo in the Pas de Six from La Vivandière in Saint-Léon notation (Guest 1989:84).

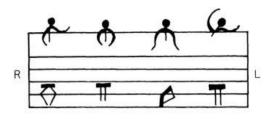


Figure 4.20 The Saint-Léon notation staff (Guest 1989:99).

The Zorn System, a modified version as depicted in Sténochorégraphie, created by Friedrich Albert Zorn whose book Grammatik der Tanzkunst (Grammar of the Art of Dancing), published in Leipzig in 1887, was the next stick figure system to appear. Zorn focused on providing a system that was able to accurately describe the dance technique of the time, analyse body movements and record dances and exercises (Guest 1989:83-88, Guest 2005:2).

## Grammatik der Tanzkunst.

Cheoretifdjer und praktifcher Huterricht in der Touskunft und Tousschreibkunft Choregraphie. Atlas Bereichnung Hebung Mufilier Beilpielen Friedrich Albert Jorn, Leipzia.

Figure 4.23 Title page of Grammatik der Tanzkunst (Guest 1989:84).



Figure 4.22 Friedrich Albert Zorn (Guest 1989:85).

Instead of a staff, Zorn assigns a single base line on which the figures are drawn that indicates when the body is on the floor or in the air (Guest 1989:99-100).

Figure 4.24 The Zorn notation staff (Guest 1989:100).

#### GRAMMAR OF THE

## ART OF DANCING

THEORETICAL PRACTICAL

Lessons in the Arts of Dancing and Dance Writing (Choregraphy)

With Drawings, Musical Examples, Choregraphic Symbols and Special Music Scores

Translated from the German of

FRIEDRICH ALBERT ZORN Dancing at the Imperial R of Teachin

Edited by Alfonso Josephs Sheafe ster of Dancing, Member A. N. A. M. of D.

> BOSTON, MASSACHUSETTS 1905

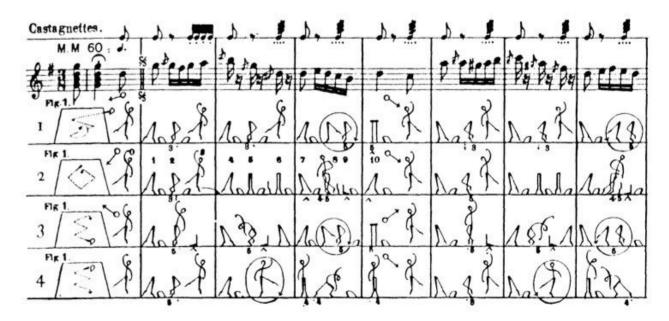


Figure 4.26 Excerpt from the Cachucha in Zorn notation (Guest 1989:86).

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Figure 4.25 Title page of Grammar of the Art of Dancing (left) (Guest 1989:87).

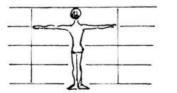
The most well-known visual system is that of ballet dancer, Joan, and her husband, Rudolf Benesh. The Benesh system was first published in London in 1956 and while it was originally created to easily capture classical ballet sequences, the nota-

tion method aimed to be considered as a pure movement notation, and subsequently developed to meet the needs of other types of movement and other dance forms (Guest 1989:91, Guest 2005:3).



Figure 4.27 Joan and Rudolf Benesh (Guest 1989:91).

Due to its strong balletic influence, and dance being performed to a musical score, the five-line music staff was adopted to represent the body, where the bottom line presents the floor, and the lines moving upwards, respectively represent the knee, waist, shoulder, and top of the head, drawn as the figure is seen from the back. A dotted line is



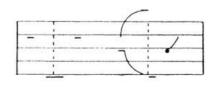


Figure 4.28 The Benesh staff (Guest 1989:91).

drawn to illustrate the center of the pictorial, that appears at intervals along the staff, and as the transcriber/reader becomes more comfortable with the notation system, this centre



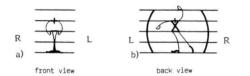
Figure 4.29 Illustration of a score in Benesh notation (Guest 1989:93).

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line is removed, and merely the base support and position of the extremities and movement lines are shown (Guest 1989:101-102).

The virtually full-figure Sutton System, developed by a young ballerina, Valerie Sutton, appeared in the United States of America in 1973, in her book, Sutton Movement Shorthand: The Classical Ballet Key (Guest 1989:94-96).



The Sutton notation system also places the figure on a five-line staff. The figure is drawn as seen from the drawn from the perspective of the audience, but when the figure's back is turned to the viewer, an 'X' is drawn across the back of the figure (Guest 1989:102).

Figure 4.30 The Sutton staff (Guest 1989:102).



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Figure 4.31 Valerie Sutton (Guest 1989:96).

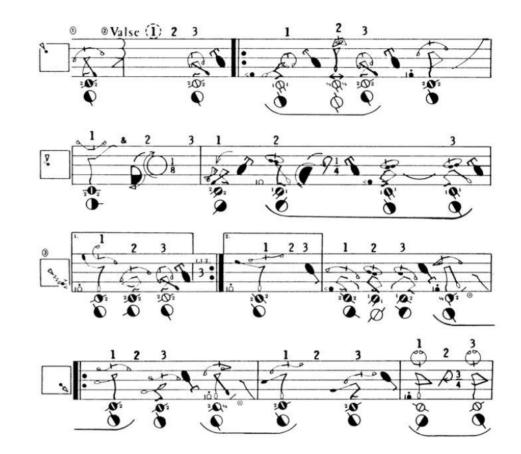


Figure 4.32 Excerpt from the Sutton score of the Lilac Fairy Variation from The Sleeping Beauty (Guest 1989:97).

While the stick figure notation systems achieved a certain measure of success, there were significant drawbacks. The Saint-Léon, Zorn and Sutton systems are all drawn from the perspective of the audience, resulting in the performer having to reverse the notation when read. There was also difficulty in indicating the third dimension, where indication

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of movement and duration of action in space was not always clear (Guest 1989:99-100, Guest 2005:2).

Another significant disadvantage of the stick figure or visual/pictorial systems is that all essentially have no movement analysis (Guest 1989:98).



#### Music Notes Systems

Since both dance and music contain the common element of time, the following chronological development in dance notation, was one that would be based on music notation. This system adapted and placed music notes on an adapted staff, that would be able to satisfy the needs of dance, while accurately indicating dance rhythms.

The first and most successful dance note system was developed by dancer and teacher at the Imperial Maryinsky Theatre in St. Petersburg, Vladimir Stepanov, in his book L'Alphabet des mouvements du corps humain, published in Paris 1892. As the title of his book suggests, his approach revolved around scoring human movement from an

#### ALPHABET

DES MOUVEMENTS DU CORPS HUMAIN Essai d'enregistrement des mouvements du corps humain au moyen des signes musicaux. PAR W.J. STÉPANOW ATTER DE TELATAL HEFERIAUI M SATE PERMANNA PARIS

MINERIE M. POUCHERMANN PARIS, 98, BOR SI-ANTOIRE, 98. 1892

Figure 4.33 Title page of Alphabet des Mouvements du Corps Humain (Guest 1989:149).

anatomical perspective (even though it was specifically applied to ballet) and was well received in both Paris and St. Peterburg, and subsequently adopted and taught for several years, until the early death of its creator at the age of 29 (Guest 1989:146-150, Guest 2005:2).

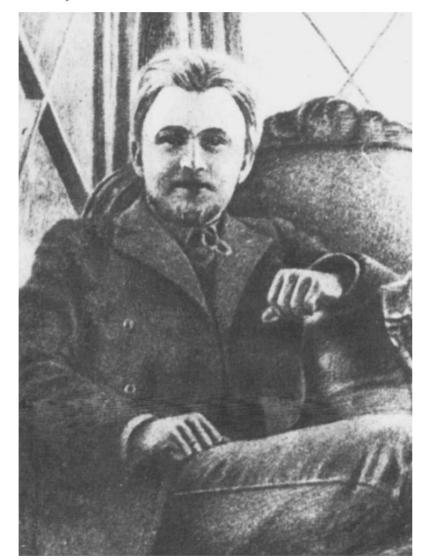


Figure 4.34 Vladimir Stepanov (Guest 1989:149).



Figure 4.35 The Prince's variation in Act III of The Sleeping Beauty (Guest 1989:152).

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Mys. T. Taunoberaro. С

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The Stepanov system would later be revived by Vaslav Nijinsky, regarded as the greatest male dancer of the 20th century, in the score of his ballet L'Après-midi d'un Faune where

he adapted the Stepanov staff to three sets of five lines, and later used as a choreographic development device by Leonide Massine (Guest 1989:153-155).



Figure 4.36 Excerpt from Nijinsky's score (Guest 1989:154).

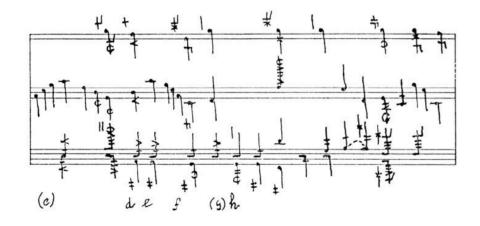


Figure 4.37 An example of Massine's choreographic studies (Guest 1989:154).

The following major music note notation system was that devised by ex-soldier and musician, Pierre Conté, in his book Ecriture, first published in 1931, who despite not being a professional dancer himself, composed and scored a significant number of ballets for his own company. This system obtained widespread acclaim as a direct result of the film made on the system by Jean Painlevé, in which the dance score ran adjacent to the dance movements (Guest 1989:157-159).



Figure 4.39 Conté's choreographies (Guest 1989:159).

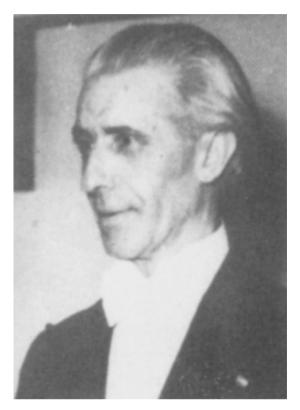


Figure 4.38 Pierre Conté (Guest 1989:156).

EXPRESSION par GESTES

Pierre CONTÉ

- EDUCATION PHYSIQUE - SPORTS - METIERS - MISE EN SCÊNE - DANSE

### ÉCRITURE

ARTS et MOUVEMENT 28, rue d'Assas - PARIS-VI\* Tea duet diserde per tea pas

Figure 4.40 Title page of Écriture (Guest 1989:158).

Choroscript, a system devised by modern dance teacher and choreographer, Alwin Nikolais appeared in magazine articles in the early 1950s, and while the development of this suffered because of Nikolais prioritising teaching and choreography, his particular adaptation of music notes provides a particular advantage in the way it indicates timing (Guest 1989:160-164).

# CHOROSCRIPT · MOVEMENT ANALYSIS AND NOTATION WALWIN NIKOLAIS

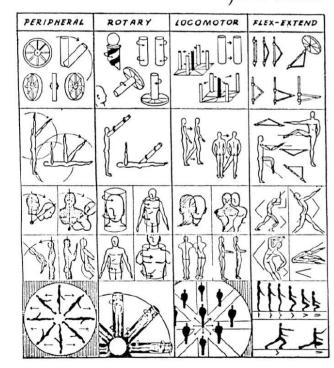


Figure 4.42 Title page of Choroscript (Guest 1989:162).



Figure 4.41 Alwin Nikolais (Guest 1989:162).

Most of the music note notation systems is derived from the horizonal music staff, where the lines and spaces on the staves are used to represent the body and its extremities, however music notes lack the required flexibility to record variations in the timing and/or duration of a particular movement, as well as not being able to depict the spatial placement and movement of the dancer within the performing space (Guest 1989:165, Guest 2005:2).

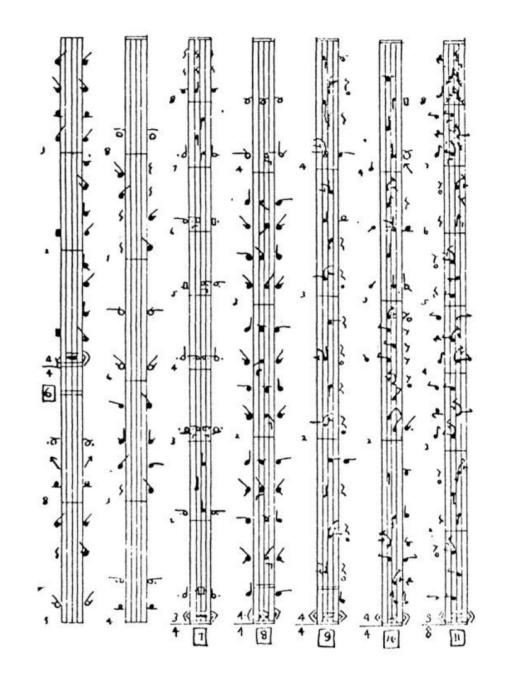


Figure 4.43 Nikolais Score (Guest 1989:164).

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#### Abstract Symbol Systems

Abstract movement systems work on the premise of clearly illustrating movement patterns using signs that represent basic elements, such as body parts, direction of movement, rotation etc. This language has the advantage of documenting all types of human movement by determining its composition and are therefore not strictly employed in the scoring of dance sequences.



Figure 4.45 One of the many prints included in Letters on Dancing (Guest 1989:207).

#### LETTERS ON DANCING,

Chis Elegant and Bealthful Exercise

NOST RESPECTFULLY DEDICATED, BY PERMISSION THE MOST NOBLE THE MARCHIONESS OF LONDONDERRY.

EASY SCIENTIFIC PRINCIPLES.

E. A. THÉLEUR, Royale de Danse de Paris, de la Chane de Mons. Coulos Pare, de Balleto daza alemano Théotres artecteurs de Constante TWENTY-FOUR COPPER-PLATE ENGRAVINGS

BT PTEWART, BALPLE, BICES AND READ. E QUID SOTISTI RECTIUS INTES TETTI : EI SON EIS UTERE MECUN SECOND EDITION.

LONDON AT MARLEOROUGH STREET, AND FURLERED BY SHERWOOD & CO FATERNOSTER ROW: King and the Royal Passily, S Square, at Mr. Puller's Reposit

1852

Figure 4.44 Title page of Letters on Dancing (Guest 1989:206).

The first abstract symbol notation system appeared in 'Letters on Dancing', published in 1831 by E.A. Théleur, an English dancing master who studied in Paris and established his school in London. Théleur's system focuses specifically on the art of dancing and the accurate execution of each step, providing distinct signs for seven basic movements (as identified by him), alongside a numbering system and abbreviated notation for more complex steps (Guest 1989:205-210).

Figure 4.46 Example of Théleur's notation of steps (Guest 1989:209).

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Figure 4.47 Gavotte de Vestris, as notated by Théleur (Guest 1989:210).

LA GAVOITE DE VESTRIS.

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The next development in notation systems was spurred on with the advancement of technology in the 20th century and the use of abstract symbols and mathematical devices that brought with it two notation systems that focused on the universal aspects of movement. The first, 'Schrifttanz' (Written Dance), Rudolf von Laban's system, first published in Vienna in 1928, may possibly attribute its success and continued use til this day, to Laban's analysis and understanding of the roots of movement rather than merely scoring existing developed forms,







Figure 4.48 Title page of Schirfttanz (Guest 1989:212).

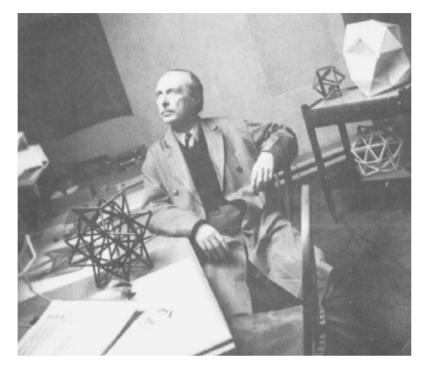


Figure 4.49 Rudolf von Laban (Guest 1989:213).

as well as his spatial and dynamic movement principles, making it possible for this system to be applied to all forms of movement. His system offers two innovations, the first being the vertical staff that depicts the human body which allows the correct representation of the right and left sides of the body, as well as a continuous flow in the manner in which movement is indicated, and secondly, lengthened movement symbols which indicate the precise duration of each action (Guest 1989:211-217, Guest 2005:3).

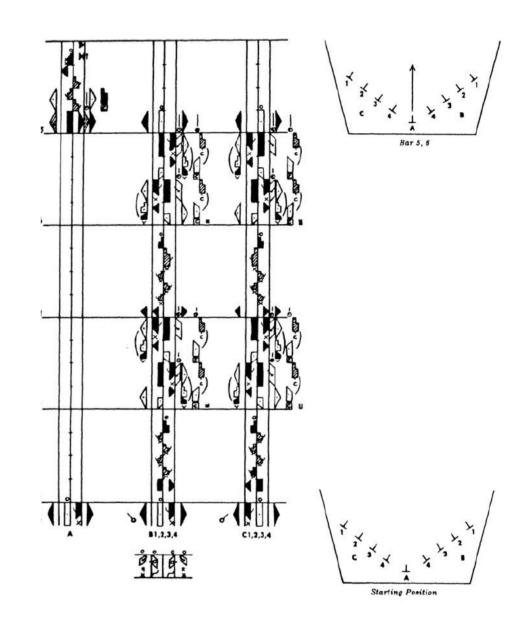


Figure 4.50 A page from Balanchine's Dance of the Little Swans (Pas de (Guest 1989:217).

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Neuf), one of the many ballets notated using Labanotation

The second, also published in 1928, in London, is that of Margaret Morris, a self-taught freestyle dancer, who developed a body-centered system based on an anatomical analysis of movement, with the aim of recording all kinds of movement, 'The Notation of Movement'. (Guest 1989:218-221, Guest 2005:2). Besides theatrical dance and teaching children, Morris was also interested

> THE NOTATION OF MOVEMENT TEXT, DRAWINGS AND DIAGRAMS MARGARET MORRIS

> > With an Introduction by H. LEVY, M.A., D.Sc., F.R.S.E. Professor of Mathematics. Imperial College of Science & Technology

P The position in Frontispi-written in notation

LONDON KEGAN PAUL, TRENCH, TRUBNER & Co., Ltd. BROADWAY HOUSE, CARTER LANE, E.C.

Figure 4.51 Title page of Morris'

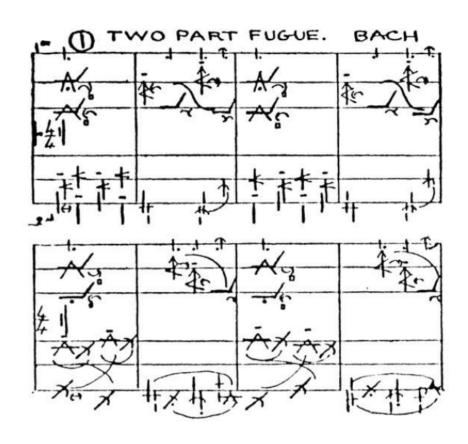
The Notation of Movement

(Guest 1989:219).

in the therapeutic side of dance, where she combined her sense of movement with her medical experience. Unfortunately, because of the arbitrary use of symbols, asymmetrical staff and rudimentary indication of timing, the system is not user-friendly and is not widely used. (Guest 1989:301-302, Guest 2005:2).



Figure 4.52 Margaret Morris (Guest 1989:220).



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Figure 4.53 Two examples of scores in the Morris system, the Two Part Fugue and the solo dance Gloxinia (Guest 1989:221).

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Eugene Loring and D.J. Canna published a notation system called 'Kineseography' in 1955, which was almost exclusively used for the scoring of his choreographic works for his Dance Players Company. His notation system, which is read from the top down, involves meticulous charts where the staff represents one performer, the columns, the movements of the parts of the body, the heavy horizontal lines, the bar lines, while direction of movement is indicated on the left beside the chart (Guest 1989:222-226).



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Figure 4.54 Eugene Loring (left) (Guest 1989:224)

Figure 4.55 The notation of the Opening March from Loring's famous ballet, Billy the Kid (above) (Guest 1989:225).

Noa Eshkol and architect, Abraham Wachmann, developed a purely mathematical system for the recording of movement, published in London in 1958, in their book 'Movement Notation'. Their impersonal dissection of movement and analysis of basic motions captured a geometrical representation of the human body depicted as a series of connected 'rods' moving through space, recorded in intervals and used as a compositional device to illustrate intricate spatical designs on paper. This system was applied to a variety of dance styles, but failed to provide movement descriptions that were able to recount everyday movements (Guest 1989:226-230, Guest 2005:3).



Figure 4.56 Noa Eshkol and Abraham Wachman (Guest 1989:228).

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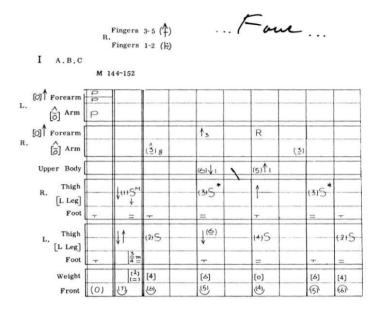


Figure 4.57 Excerpt from Diminishing Series Dance Suit by Noa Eshkol (Guest 1989:230).

### INTRODUCING RUDOLF LABAN

Rudolf Laban (1879-1958), described to be "the multifaceted dance theorist" (Moore 2009:1), was "an artist and scientist, architect, choreographer, philosopher and movement educator, extraordinarily innovative and charismatic" (Bartenieff & Lewis 1980:ix). Laban was born in Bratislava, Hungary, he travelled extensively, and spent his young life pursuing the professions of painting and architecture, where he exhibited a great interest in drawing the human form. Echantment with the theatre soon led him to use his artistic talents to work in stage design which led him to the production of his first theatrical piece (Davies 2006:1). In watching his piece from the stage curtains, the realisation dawned on him that he had inadvertently, created a dance, which was received with great aplomb. After the death of his wife, and his father a short period later, he moved to Munich in 1911, and by 1913 Laban focused primarily on choreography and dance, although he never entirely separated himself from art and architecture (Davies 2006:2). He was now regarded as a leading figure in the dance scene in Germany, and it is here where he started putting into practice the theories he had started to develop.

Shortly afterward, during the First World War, he travelled to Zurich, where he met Carl Gustav Jung. "Jung's theory of the basic antitheses in the human psyche between intuition and sensing, thinking and feeling, resonated with Laban's own evolving notions of movement, which he saw as consisting of space, weight, time and flow" (Davies 2006:4).

Laban continued to perform as a dancer and choreographer throughout his young life, however, his greatest and continuing contribution has been the philosophy and theory he brought to the study of movement, and in particular his achievement in recording movement. At this time, dance often took a lower standing to the other arts, simply because of the limited manner in which dance sequences could be transmitted from one person to another. This, along with the progression of modern dance, increased the necessity for a method of recording where the third dimension could be traced. Laban took it upon himself to create and establish a comprehensive manuscript for transcribing all aspects of movement in terms of space, weight, and time as well as body movement (Davies 2006:5).

Rudolf Laban produced 'Schrifttanx' in Vienna in 1928, which was the culmination of his notation theories and practices developed from 1900 to 1928 (Davies 2006:7). Kinetography Laban or Labanotation, as it later became known, preserved, and further developed by the Dance Notation Bureau in New York, has been the most enduring and most used notation system in the world, in dance as well as in other disciplines, its versatility and adaptability of recording movement extending to non-performance movement (Brittanica 2021, Davies 2006:7).

From 1930 - 1934, Laban held the position of Choreographer and Director of Movement to the Prussian State Theatres, during the Bauhaus and Expressionist periods, but was stripped of his title and his teaching permit after two unfortunate altercations with Goebels suggesting that Laban's choreography promoted his own ideas rather than those of Nationalism Socialism enforced by the Nazi party (Davies 2006:15). This led to him fleeing to Paris in 1937, and then to England in 1938 where he became involved in teaching, once again, this time alongside ex-pupil, Lisa Ullmann at the Dartington dance school. Laban



and Ullmann initiated a series of short courses and summer schools that focused on teaching dance and movement, which eventually grew into the Art of Movement Studios in Manchester in 1946. Even though Laban was the founder of the Studio, Lisa Ullman remained the Director, allowing Laban to focus primarily on further developing his studies on Choreutics and Eukinetics. (Bartenieff & Lewis 1980:ix, Davies 2006:18-20).

Laban's earlier pursuit in architecture gave him a particular spatial awareness which he applied to his inquiry into human movement.

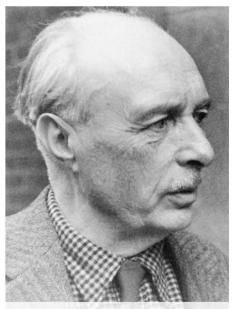


Figure 4.58 Rudolf Laban in 1950 (Davies 2006:xvi).

Choreutics, like Shape refers to the architectural element of movement, its structure, forms of movement created in space. Laban identified three planes along which a movement can be seen to occus along one of these planes or as a diagonal between two of them. "Warren Lamb describes Choreutics as the sculptural shape

which would emerge if small jets of vapour trails were attached to all parts of the body and the resulting shape could be seen. It might appear elongated, flattened, or composed of short angular lines, but it would not have any similarity to the body which created it" (Davies 2006:35, 40).

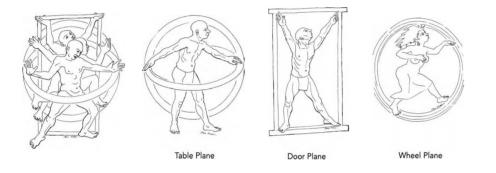


Figure 4.59 The planes of shape as identief by Laban (Davies 2006:41).

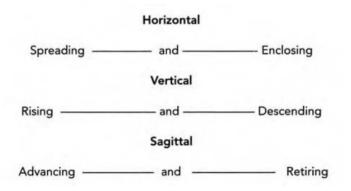


Figure 4.60 Horizontal, Vertical and Sagittal movement (Davies 2006:42).

Eukinetics, or Effort is the nature of the movement, as well as the intensity of the effort put into that motion determining whether it is fast or slow, strong or light. The three qual-

	Spa
Flexible —	ar
	We
Light —	an
	Tir
Sustained —	ar

Figure 4.61 Space, Weight and Time qualities (Davies 2006:43).

- I. Space is the full extent of the kinesphere or 'bubble' in which we move. Space Effort can be described as the quality of the movement which we are exercising.
- 2. Weight is the amount of force or pressure we apply to our actions.
- 3. Time is the tempo of our motions. (Davies 2006:43)

Freeing

Figure 4.62 Flow diagram (Davies 2006:48).

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ities of effort are identified as Space, Weight and Time, and similarly to the three planes of shape, these too have divergent polarities (Davies 2006:36, 43).

ace	
nd	— Direct
eight	
nd	Strong
me	
nd	Quick

Along with space, weight and time, another important movement quality was identified by Laban as 'Flow'.

### FLOW OF EFFORT

Binding

The concept of Flow can be defined as the dynamic of movement, harmonising gestures along with whole body movements, allowing for a sense of flexibility and grace, or control and stiffness. It is most effectively explained by imagining the movements of an infant before any societal behavioural norms have required it to discipline its movements (Davies 2006:48).

Another figure of importance in Laban's life, whom he met in Dartington as well, is F.C. Lawrence, with whom he saw the opportunity to further the work on his theories of understanding movement as well as laying the foundation for the application of his movement in industry concepts (Davies 2006:20-22).

As part of his studies with Lawrence, Laban and Ullman held a three-part course called 'Rhythmic Movement in Industry' in June and July of 1942 where they investigated argricultural and factory processes and developed basic exercises with the goal of creating a more comfortable and efficient work environment (Davies 2006:23). These workshops led to the writing of 'Industrial Rhythm', which Laban jointly published with Lawrence that same year (Davies 2006:26).

Laban's interest in movement process in all aspects of life persisted, and him and Lawrence continued to investigate various stages of study the marketplace, factory work tasks, the theatre, martial arts, the spatial forms of Sufi rug weaving, rhythmic patterns in folk dances and crafts - which led to a broad perspective (Bartenieff & Lewis 1980:ix, Guest 2005:3).

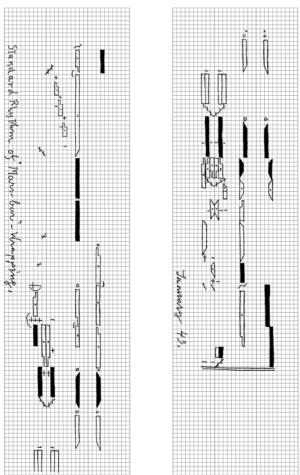


Figure 4.63 From Laban's original script for wrapping a Mars Bar (Davies 2006:26).

Laban and Lawrence's work continued to gain pace after 1945, and in 1946, a student by the name of Warren Lamb joined the Art of Movement Studio in Manchester. Even though Lamb had unquestioned talent as a dancer, he possessed a natural ability for observing and recording movement, and it soon became apparent, within a few months of joining the Studio, that Lamb would become Laban's successor in carrying forth the industrial work he had begun with Lawrence (Davies 2006:31, 34).

Laban made his entry into psychotherapy in 1949 at the Withymeade Centre, a private psychotherapy clinic, managed by a husband-andwife team of Jungian psychotherapists, where he focused his time there on the correlations between his work and that of Jung. It was here where he met William Carpenter, whom he spent the next few years with on a joint inquiry into movement and psychology, until the untimely death of Carpenter in 1954. Laban continued pursuing his research into "personality, stress and intervention techniques", until his own death in 1958 (Moore 2009:28-29).

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Ann Hutchinson Guest and others, such as the International Council of Kinetography, founded in England in 1959, continue to develop Labanotation worldwide (Brittanica 2021, Wikipedia 2021). This dance notation system has been applied to other applications including robotis and human movement simulation (Wikipedia 2021).

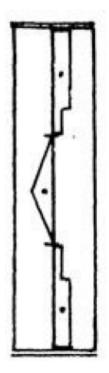


Figure 4.64 Laban - walking sequence (Davies 2006:26).

## DEFINING LABANOTATION

Labanotation can be defined as a method for recording and analysing bodily movement on a staff using an abstract symbol system, that may be aligned with musical accompaniment. The versatility of Labanotation makes it possible for the system to be applied to record every kind of human motion, and is therefore not linked to a singular, specific dance style (Brittanica 2021, Griesbeck 1996, Merriam-Webster 2021, Wikipedia 2021).

When observing human movement, the basic components of the body can be used as reference points. The lower unit, which serves as

the movement generator managing the transport of body and weight from one position to the next, is comprised of: lower back/abdomen, pelvis, hip, thing, lower leg, foot, and the toes.

The upper unit, does the work of exploring, communicating, manipulating, and gesturing, and is comprised of: head, neck, chest, upper spine, shoulders, arms, wrists, hands, fingers.

Furthermore, the observer also divides the body in two halves, right and left (Barteinieff & Lewis 1980:19).

Figure 4.65 Basic components of the human body (Barteinieff & Lewis 1980:19).

Figure 4.66 Laban's use of crosses when developing his notation staff (Guest 1989:232)





Standard Labanotation comprises a vertical three-line staff that represents the performer. The symmetry of the human body is depicted in the horizontal dimension with a middle line that indicates the centreline of the body, distinguishing right from left and representing the main body parts, while the vertical dimension is an indication of time passing by. The staff is read from bottom to top and is drawn from the performer's perspective.

#### Figure 4.67 The opening up of the central staff to indicate movement of different parts of the body (Davies 2006:8)

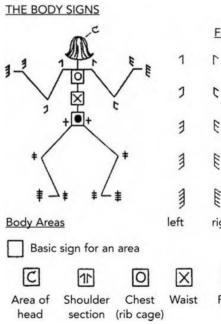
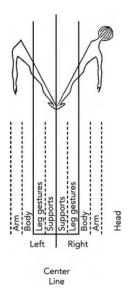


Figure 4.68 The basic body signs (Davies 2006:10)

reading direction -





The	e Joint Sig	ins			
or the Arms		E	or the	Legs	
Shoulder	+	4	F	Hip	
Elbow	‡			Knee	
Wrist	<b>≢ ╡</b> ⊧			Ankle	
Hand	ŧ	Ħ	Ħ	Foot	
Fingers	≢	тт	Ш	Toes	
ght	general	left	righ	nt	
Pelvis Whole torso	Unit of I to hea		Unit		

The rectangular direction symbols are used to indicate the direction of the movement (shape of symbol), the level at which the movement occurs (the shading of the symbol) the part of the body executing the movement (where the symbol is placed on the staff), duration of the movement (the length of the symbol) as well as the dynamic quality of the movement.

This three-line staff is the general outline level for any Labanotation score but can become progressively more specific when additional signs such as pins and hooks are added to indicate spatial nuance, dynamic contrast etc., providing a somewhat

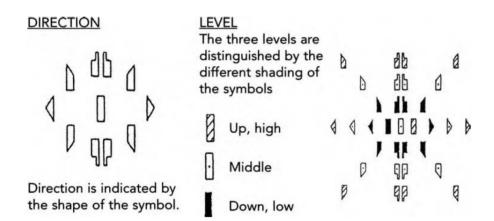
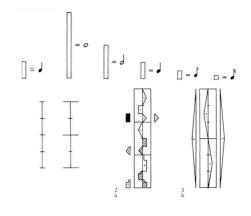


Figure 4.69 Direction was shown by these symbols being placed along the relevant part of the staff, and timing by the length of each symbol (Davies 2006:10)

simple method for the capturing of human movement, that at the same time can cater for more more complex actions when necessary (Brittanica 2021, (Guest 1989:211-217, 230-234, 239-240, 247-248, 253-255, 258-261, 264, 273-274, 280, 283-284, 289-290, 294-301, Griesbeck 1996, Wikipedia 2021).



In complex cases, movement paths or floor plans are used to record routes and indicate positions in space. Movement paths are written into the staff, while floor plans are written below or beside the staff, to depict a quick overview of the route of movement in a given space or on stage (Griebeck 1996).

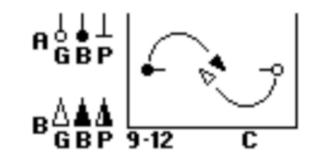


Figure 4.71 A = symbols for the starting position of the actors (Girl Boy Person) B = symbols for the ending position of the actors C = an example of a floor plan (Griesbeck 1996)

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Figure 4.70 Timing is indicated by the length of the movement symbols (Guest 1989:247).