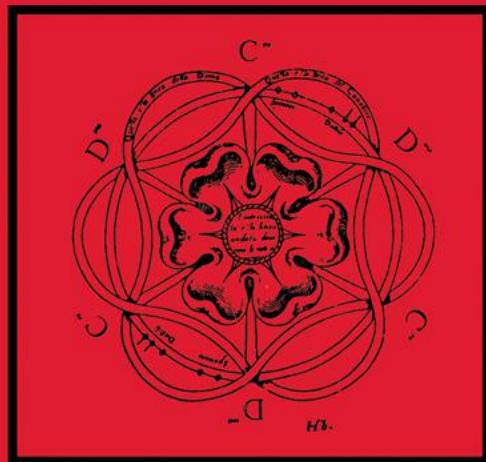


Ann Hutchinson Guest

CHOREO-GRAPHICS

A Comparison of Dance Notation Systems From the Fifteenth Century to the Present



Choreo-Graphics

Choreo-Graphics

*A Comparison of Dance Notation Systems from the Fifteenth
Century to the Present*

By

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Cover: The famous rose pattern floor plan of the contrappasso from Caroso's book Nobilitá di Dame, 1600.

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Dedication

Inventors of dance notation systems and the scribes who followed in their footsteps are the unsung ‘toilers in the vineyard’ in the world of dance preservation.

This book is dedicated to the unknown writer of the Cervera manuscript (our earliest record of dance notation as such) and to all those who have striven to preserve the art of dance, dedicating long hours - if not a lifetime - to capturing the essence of movement on paper.

This book is also dedicated to those who come after and who, instead of contemplating inventing a new dance notation system, discover what has already been achieved and contribute to the art of dance by directing their energies and talents to the perfection of the best one available.

Preface

CHOREO-GRAFICS: the name is self-explanatory - 'choreo', dance; 'graphics', writing or drawing. Up to now the more general term used has been 'dance notation'. My concern in this book is to explore the subject itself, both the graphics used and the underlying thinking and movement analysis.

It is one thing to read introductory books on different systems of dance notation; it is another to make one-to-one comparisons between such systems. Each system presents itself in its own way; each has a different approach to movement and each provides very different practical examples. How do systems compare? Can a general assessment be made at an elementary level?

This book grew from a lecture illustrating the different types of movement analysis and symbols used in thirteen significant systems - both historical and present-day. It presents the way in which each one records on paper the elements of movement - parts of body, basic actions, timing. For each system are given the basic movements of flexion and rotation, as well as positions of the feet, walking, jumping, turning, and a simple arm sequence. Because each system's notation of identical movement patterns is presented, a direct comparison of material can be made.

Research for this book covered many years. To ensure accuracy the material on each present-day system has been checked with an authority on that system.

Requests for some assessment of the systems, arising from my own experience as well as that of others who have studied more than one system, persuaded me to add to each chapter a section on advantages and disadvantages of the systems in the category under examination. Such evaluations have posed difficulties; to be in a position to understand them, the reader must be acquainted with some of the ‘facts of life’ concerning dance notation usage. Of primary importance in the consideration of any particular movement notation system are two questions: What specific use is planned by the author? What are the user’s expectations?

The initial aim of all systems is to record a simple description of movement. Through use, reader and writer gradually find that more detail is needed; the system is expanded and descriptions become more full. In some cases systems have met the demand for high fidelity; greater sophistication in movement description has resulted, providing complete scores which capture all the detail needed for a faithful reconstruction. This high level of accuracy is seen by many as too detailed, undesirably cumbersome, and simpler statements are preferred. How simple? How detailed? The level depends on the aim and purpose

for which notation recording is intended. Scores in one system are scoffed at by some for being too simple, but used by others for just that reason. Scores in another system are rejected by some as being too complex, but embraced by others because desired important nuances of expression and

timing are present. With such built-in needs - and hence biases - how can any particular system be assessed?

As one who has been at the forefront of investigation into fine subtleties of movement, I recognize the need for detailed notation. But I also use and teach simpler movement descriptions and appreciate that for many people a simple level suffices. Satisfaction with a system is a very subjective matter, depending to a great extent on what the user needs and expects. In the evaluations given in the Advantages and Disadvantages sections I have tried to be objective, pointing out the obvious and/or well-known facts. A far more comprehensive evaluation may come in the future from professional practitioners of two or more systems.

Success of a particular system may not rest on its intrinsic value. As in many other areas of life, salesmanship, contacts, and financial backing can put one system in the limelight while their lack leaves another struggling to be acknowledged. Only time will tell which system proves to be the best - in its inner construction, in its ease of use, and in the satisfactory results produced within a range of applications and at various levels of descriptive detail.

Ann Hutchinson Guest
London

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- for the Benesh system - Adrian Grater
- for the Conté system - Michelle Nadal, Martine Risch and Valerie Nogue
- for the Eshkol-Wachmann system - Noa Eshkol and Michal Shoshani
- for the Loring system - James Penrod

- for the Morris system - James Hastie
- for the Nikolais system - Alwin Nikolais
- for the Sutton system - Valerie Sutton and Mrs. Sutton

If any errors have inadvertently crept in I offer my apologies to the above who did so much toward completion of this book.

Discussion of Apparent Advantages and Disadvantages of the Different Systems

What in one dance notation system is seen by some as an advantage is seen by others as a disadvantage. Is the aim of the system to be simple, providing a memory-aid for those who know the style of movement? If so, it is likely to be found deficient by those who need scientific accuracy. But if great care is taken to analyze and record movement precisely, many people may find such a system too complex, requiring that too much attention be paid to the nuances of movement and consequently too great a need to analyze. For an objective evaluation of any system, one must know the purpose that system was intended to serve. Different systems have different aims.

Within the systems investigated here one sees much variation both in the point of view taken in looking at movement and in the practical devices used to notate it. No matter how great a desire there may be for scientific accuracy, sooner or later in each system the need has arisen for conventions for actions which are experienced as simple and natural, such as walking. Conventions are a necessary part of any movement notation system designed for everyday use by the average person.

Conventions aside, however, many assumptions are usually made in the interpretation of a basic notation statement to which no performance detail has been added. When simple statements in notation are given specific interpretations, these specific meanings must be learned and memorized. Are these meanings logical, or do they reflect the personal thinking of the inventor or the type of movement for which the notation was originally invented?

Many factors enter into an evaluation of a movement notation system: the experience of the person making the evaluation, the depth of his/her study of each system, the intensity of the investigation into each system's use, etc. It is only by using a system of notation in daily practice that one appreciates fully its advantages and disadvantages. If one has been using only a single system, one's thinking is naturally affected by the point of view of and the usages in that system. On the other hand, acquaintance with many systems provides a broad base for evaluating what each system has to offer. It becomes evident that a particular strength in one system may turn out to be a weakness when demands other than the usual are placed upon it.

The extent to which inventors of notation systems have, or have not themselves studied other systems is usually evident from the introductions to their books. In some, no mention is made of the existence of any other system; in others, statements about other systems reveal gaps in comprehension on the part of the writer. One has great respect for someone like Srbui Liszitzian (Russia, 1940), whose research resulted in considerable factual material on systems previous to her own.

In taking the bull by the horns and daring to include sections on the advantages and disadvantages of systems in each category, I am leaving myself wide open to criticism, particularly that of being biased in my judgement. However, I have spent much effort in thorough investigations of the various systems, have gone back repeatedly to study them again, and have undertaken translations of them the better to understand how they function. And, most importantly, I have presented to those responsible for each system a draft of what I proposed to include in this book, so the mis-statements could be corrected. In all respects I have tried to give a fair and accurate report on advantages and disadvantages. Many of these evaluations have been substantiated by others who are involved in working with movement notation systems and whose studies have encompassed more than one system. Some practitioners have changed from one system to another; others continue to find the system of their original choice useful, while at the same time they recognize its weaknesses.

Though considerable research, extending over many years, has gone into this book, it is only a start toward a fully-fledged comparison of leading movement notation systems. Without doubt much more will be done in the future. I hope what is presented here will inspire others to carry the work further.

Chapter One

Words and Word Abbreviations

Letter Codes

An obvious device for anyone wishing to jot down rapid notes is use of a letter (or letters) for the name of each step. If the steps themselves and their manner of performance are widely known, such abbreviations suffice. All that needs to be recorded is the sequence in which the steps occur in the dance. Such a situation existed in the Renaissance when the five steps of the Basse (meaning low) Dances were all well known; a dance could be recorded by merely listing each initial letter of the steps in the appropriate sequence. The names for these steps varied slightly in the different European countries. The five steps (in French, Italian and Spanish) and their abbreviations were:

- R révérence (riverenza,
reverencia)
- s.... simple (or p for passo, paso)
- d (or de)... double (doble)
- r (re or Z)... reprise (ripresa, represa)
- b (or 9)..... branle (or c for continenza, continencia)

The reverence (R) was the formal bow which both commenced and concluded each dance. A passo (p), also

called a simple (s), was a step forward followed by a closing of the other foot. A double (d or de) consisted of two steps forward followed by a closing of the feet. The reprise, shown as ‘r’, or ‘re’, was a backward step; another sign for it was a Z. The branle (b) was a swaying step which comprised two lilting steps in place; it was also called a congé or continencia and was therefore sometimes indicated with a letter ‘c’ or with a sign like a number 9.

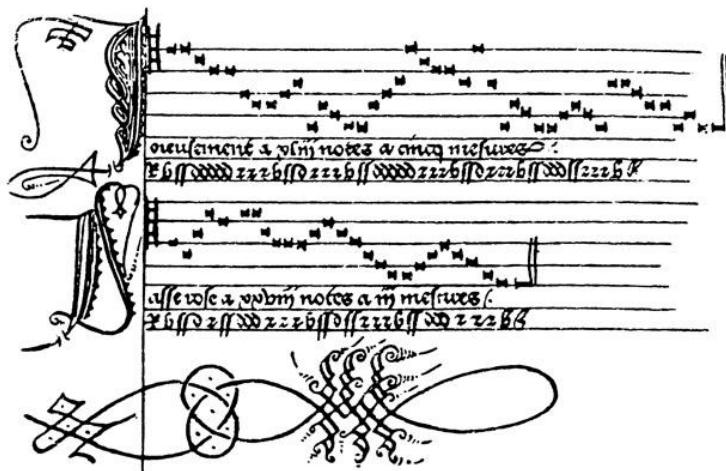
Through use of these letters the dance sequence was spelled out as illustrated in Ex. 1.

R 9 p p de de de p re re re (etc.)
Ex. 1 or: R b s s d d d s Z Z Z (etc.)

The first printed book using the established letter code was L'Art et instruction de bien dancer, published in France in the late 15th century, [Ex. 2](#). Each letter was placed under the appropriate music note (at that time a square symbol). Also of this period is the Burgundian manuscript known as The Dance Book of Margaret Of Austria, ca. 1450, which subsequently was handed down to Margaret's daughter, Mary of Hungary and is now in the Royal Library in Brussels, [Ex. 3](#). The original of this book is in silver and gold on black paper.

Amyeur aymeye a xxx notes a iiiime
 $\begin{matrix} 2 & b \\ \text{m} & \text{f} \end{matrix}$ $\begin{matrix} d & f \\ m & d \end{matrix}$ $\begin{matrix} d & d \\ m & d \end{matrix}$ $\begin{matrix} b & d \\ m & d \end{matrix}$ $\begin{matrix} d & d \\ m & d \end{matrix}$ $\begin{matrix} d & d \\ m & d \end{matrix}$
Egrāt thorin a xlviii notes a/
 $\begin{matrix} b & d \\ m & d \end{matrix}$ $\begin{matrix} d & d \\ m & d \end{matrix}$ $\begin{matrix} d & d \\ m & d \end{matrix}$ $\begin{matrix} d & d \\ m & d \end{matrix}$ $\begin{matrix} d & d \\ m & d \end{matrix}$ $\begin{matrix} b & d \\ m & d \end{matrix}$
 cinq mesures.
 $\begin{matrix} m & b \\ m & d \end{matrix}$ $\begin{matrix} d & d \\ m & d \end{matrix}$ $\begin{matrix} d & d \\ m & d \end{matrix}$ $\begin{matrix} d & d \\ m & d \end{matrix}$ $\begin{matrix} b & d \\ m & d \end{matrix}$
Adoulce amout a xlvi notes a quatre
 $\begin{matrix} 2 & b \\ \text{m} & \text{f} \end{matrix}$ $\begin{matrix} d & d \\ m & d \end{matrix}$ $\begin{matrix} d & d \\ m & d \end{matrix}$ $\begin{matrix} b & d \\ m & d \end{matrix}$ $\begin{matrix} d & d \\ m & d \end{matrix}$ $\begin{matrix} b & d \\ m & d \end{matrix}$
 mesures cōme il appert.
 $\begin{matrix} d & d \\ m & d \end{matrix}$ $\begin{matrix} d & d \\ m & d \end{matrix}$ $\begin{matrix} b & d \\ m & d \end{matrix}$ $\begin{matrix} d & d \\ m & d \end{matrix}$ $\begin{matrix} b & d \\ m & d \end{matrix}$

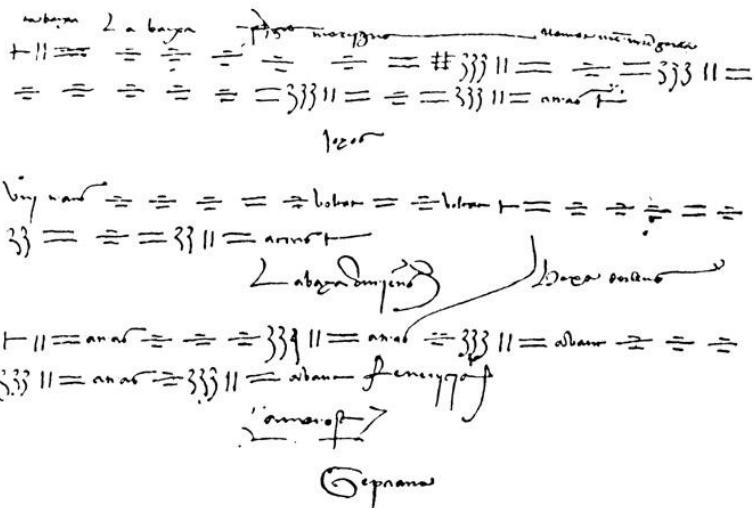
Ex. 2 L'Art et instruction due bien dancer (Late C15)



Ex. 3 Burgundian Manuscript (Late C15)

Cervera

Fascinating as these examples are, the most remarkable discovery was that of two manuscripts, known as the Catalonian manuscripts, to be found in the municipal archives in Cervera, Spain, Ex. 4.



Ex. 4 Cervera Manuscript (Late C15)

The manuscripts appear to be the work of master and pupil. One contains only a series of symbols across the page; the other, fortunately, gives the Letter Code above the symbols, thus providing the key to their meaning.

The signs in the Cervera manuscripts are basically pictorial, as illustrated below:

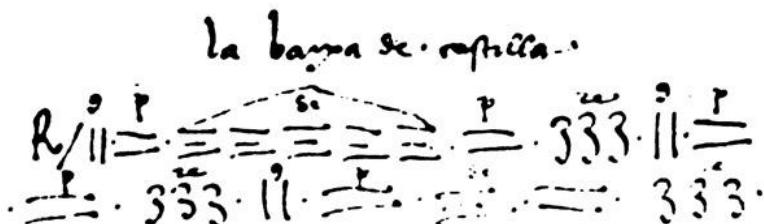
- a)  = reverencia (R)
- b)  = continencia (9)
- c)  = paso (p)
- d)  = doble (de)
- e)  = represa (re)

Ex. 5 Cervera: Spanish names for the meaning of the steps

The horizontal strokes indicate movement in the forward direction, either a body gesture or a step; the vertical stroke indicates a movement ‘in place’. The first sign, a horizontally placed letter ‘T’, Ex. 5a, represents a step in place with a simultaneous forward movement of the body (a forward bend), i.e. the révérence which begins and ends the dance. The two vertical strokes, Ex. 5b, show two steps in place of the swaying continencia (branle) steps. Ex. 5c indicates two steps forward, a single pace (passo) - actually, as we have seen, a forward step followed by a close. Ex. 5d denotes a double (doble), two steps with a close. The sign of 5e which looks like an elongated number 3 is a reprise, a backward step.

Ex. 6 shows the letter code written above the abstract symbols. The ‘R’ used for révérence is followed by a branle (9), a passo, then five doubles (doubles always came in odd

numbers - 1, 3, 5, etc.), a passo, three reprises, a branle, a passo, and so on.



Ex. 6 Cervera - Detail

Arbeau

Use of letter abbreviations was widespread, lasting for nearly 200 years during which the letters were slightly modified. Our knowledge of how to perform the steps comes from books of the period, the most famous being *Orchesographie* by Thoinot Arbeau, published in 1589.

Arbeau's book does not provide a system of notation; it does, however, describe in considerable detail not only the steps to perform but also the prescribed etiquette for men and women on the dance floor. The book is written as an amusing dialogue between master and pupil. Several Italian books of the period described the dance steps but *Orchesographie* is the best known, having been translated and reprinted several times in recent centuries. The latest edition contains a translation of much of the material into Labanotation. Because the word descriptions of the steps are not sufficiently detailed and the woodcut drawings not clear, they are open to different interpretations. The reader is thus faced with an

age-old problem: the failure of those familiar with the movements to provide sufficient detail for future generations to reconstruct the steps and style accurately.

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

Par Thoinot arbeau demeurant a Lengres

Eccle. 3
Tempus plangendi, & tempus saltandi.



Imprimé audict Lengres par Iehan des preyz Imprimeur
& Libraire, tenant sa boutique proche l'Eglise
Sainct Mammes dudit Lengres.

M. D. LXXXIX.

Ex. 7 Title page of Arbeau's book

Arbeau indicated timing by placing the name of the step alongside the music note on which it should occur. He placed the music vertically on the page to accommodate the text, the reading direction being from the top down. By so doing he provided an interesting precedent in placement on the page of the music notation in relation to the indication of movement. It is interesting to note that, of the many 20th century systems, three incorporate vertical reading, two of which, however, use reading direction from the bottom of the page upward.

An example from
Arbeau's book

<i>Air de la Courante. Mouvements qu'il convient faire pour danser la Courante.</i>	
	Pas gaulche.
	Pieds ioincts.
	Pas du droit.
	Pieds ioincts.
	Pas gaulche.
	Pas droit.
	Pas gaulche.
	Pieds ioincts.

Ex. 7 a)

Simple gaulche.
Simple droit.
Ces quatre mouueméts, font double a gaulche.

Playford

Mention must here be made of John Playford and the many dances he published in *The English Dancing Master*, the first edition appearing in 1651 and the last in 1782. Playford used a simple format, hardly a system as such, the music and

starting position for the dancers being written at the top and description of the steps in words with certain abbreviations below. Ex. 8 shows Jolly Roger.

[49]

Jolly Roger. *Longways for as many as will.*



Note : The first Strain is to be play'd twice, and the last but once.

The first Man Sett to the second Wo. then Jump round S. the 2d. Man do the same with the first Woman. The first Man change places with the 2d. Wo. and the 2d. Man do the same 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 side, then first Man Arms round with the 2d. Woman, and the 2d. Man do the same with the first Wo. at the same time ; then Arms with your Partners, then Foot it all and Jump.

Ex. 8

Meunier System

A 20th century version of the idea of word abbreviations appeared in 1931 in the book La Danse classique by Antonine Meunier, [Ex. 9](#).

ANTONINE MEUNIER
DE L'OPÉRA

LA
DANSE CLASSIQUE
(ÉCOLE FRANÇAISE)

FIGURES
STÉNOCHORÉGRAPHIE — DICTIONNAIRE

Préface de CHARLES BOUVET

94 Illustrations

LIBRAIRIE DE PARIS
FIRMIN-DIDOT ET C^{ie}
56, rue Jacob

Ex. 9 Title page of Meunier's book

Antonine Meunier was a première danseuse and later a teacher at the Paris Opéra.



Ex. 10

M^{lle} ANTONINE MEUNIER, de l'Opéra

Her method of recording was through abbreviations of the names of the steps placed within a box, e.g. **Ar** - arabesque; **As** - assemblé; **Bas** - pas de basque; **Cab** - cabriole, and so on. All these terms are listed

alphabetically in her book. These basic indications can be modified by signs such as ‘d’ for droite, ‘G’ for gauche, ‘e’ for épaulé, ‘fr’ for frappé, and by a variety of other signs needed to take care of classical ballet, for example, arrows to indicate direction of travel on stage. For a satisfactory recreation of her notation one needs to know ballet technique and the particular terminology which she used. Much of her book is taken up with descriptions of the steps and positions, illustrated with photographs.

Meunier placed the indications above the music to show timing, as in Ex. 10a. There is no evidence that her method was carried on by others and no scores have come to light beyond those in her book.

[1^e plan
2^e plan]

- Figure 1^{re} - (Allegretto IV)

Fig. 1

Allegretto

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

⑪ ⑫ ⑬ ⑭ ⑮ ⑯ ⑰ ⑱ ⑲ ⑳

⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳

⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳

⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳

⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳

⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳

⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳

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⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳ ⑳

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Ex. 10 a) Variation from Roméo & Juliette

Saunders System

Words and word abbreviations will probably always be used for quick notes and such a device was published in 1946 in the United States by Richard Drake Saunders. In Danscore, Ex. 11, Saunders provided printed sheets designed to serve particular forms of dance. The balletic sheets contained balletic terms; ballroom sheets, ballroom terms, and so forth. The process of recording a dance consisted of circling the appropriate words in the correct order. In Ex. 11a, enlarged and with only a partial word list, the right elbow moves back. A music staff is provided on which to indicate timing and an area for stage location. This idea, while hardly practical, is given here to illustrate the range of ideas still being presented in this century.

Music	Stage	Action
	1	R arm shoulder elbow wrist hand palm finger leg hip knee foot heel toe body head up down L hold linger pause wide open close short long fast slow over under straight parallel side diag front forward opposite toward place weight measure change count comb cross cane position back hard easy foxtrot habanera rumba samba tango waltz tumb ca bend bow brush canter chug continue cortez cut dip draw face figure glide hop join jump kick leap pass pivot point press reverse rock slide spin stamp stomp step swing top touch turn turnie w
		R arm shoulder elbow wrist hand palm finger leg hip knee foot heel toe body head up down L hold linger pause wide open close short long fast slow over under straight parallel side diag front forward opposite toward place weight measure change count comb cross cane position back hard easy foxtrot habanera rumba samba tango waltz tumb ca bend bow brush canter chug continue cortez cut dip draw face figure glide hop join jump kick leap pass pivot point press reverse rock slide spin stamp stomp step swing top touch turn turnie w
	1	R arm shoulder elbow wrist hand palm finger leg hip knee foot heel toe body head up down L hold linger pause wide open close short long fast slow over under straight parallel side diag front forward opposite toward place weight measure change count comb cross cane position back hard easy foxtrot habanera rumba samba tango waltz tumb ca bend bow brush canter chug continue cortez cut dip draw face figure glide hop join jump kick leap pass pivot point press reverse rock slide spin stamp stomp step swing top touch turn turnie w
		R arm shoulder elbow wrist hand palm finger leg hip knee foot heel toe body head up down L hold linger pause wide open close short long fast slow over under straight parallel side diag front forward opposite toward place weight measure change count comb cross cane position back hard easy foxtrot habanera rumba samba tango waltz tumb ca bend bow brush canter chug continue cortez cut dip draw face figure glide hop join jump kick leap pass pivot point press reverse rock slide spin stamp stomp step swing top touch turn turnie w
	1	R arm shoulder elbow wrist hand palm finger leg hip knee foot heel toe body head up down L hold linger pause wide open close short long fast slow over under straight parallel side diag front forward opposite toward place weight measure change count comb cross cane position back hard easy foxtrot habanera rumba samba tango waltz tumb ca bend bow brush canter chug continue cortez cut dip draw face figure glide hop join jump kick leap pass pivot point press reverse rock slide spin stamp stomp step swing top touch turn turnie w
		R arm shoulder elbow wrist hand palm finger leg hip knee foot heel toe body head up down L hold linger pause wide open close short long fast slow over under straight parallel side diag

Ex. 11

a)	<p>1 R arm shoulder elbow wrist hand palm finger leg hip knee foot heel toe body head up down L hold linger pause wide open close short long fast slow over under straight parallel side diag front forward opposite toward place weight measure change count comb cross cane position back hard easy foxtrot habanera rumba samba tango waltz tumb ca bend bow brush canter chug continue cortez cut dip draw face figure glide hop join jump kick leap pass pivot point press reverse rock slide spin stamp stomp step swing top touch turn turnie w</p>
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An example of Saunders' *Danscore*

Advantages and Disadvantages

The immediate advantage of using words seems self-evident. Word abbreviations for the names of known steps is an obvious practical device for jotting down memory-aid notes. How many ballet dancers have not written 'gl as pdb en 4' for 'glissade, assemblé, pas de bourée, entrechat quatre' as a first useful reminder of a sequence? But even in the universally established ballet vocabulary one still has to designate much more for another reader to be able to recreate the same

pattern: with which foot did one start? is the glissade over or under, en avant or en arrière? what is the timing? where is one facing? what are the arms doing? the head? For a detailed rendition much more information is needed, therefore many more words are required and these must be organized.

In the Meunier system, we see the information organized, yet much is left unstated. Saunders' device is space-consuming in the number of pages needed for a short passage and despite the pre-printed words, is not so quick to write nor to read. Organizations such as the Royal Academy of Dancing and the Imperial Society of Teachers of Dancing in London have decades of experience writing notes for their members, and much thought has gone into the logical arrangement of the descriptions on the page to make particular information easy to find. Even so, the notes are never fully detailed and are intended as a memory-aid for those who have studied the material in person.

In considering historical documents in which dance steps and sequences are described in words, we must realize that the writers were writing for their contemporaries, for those who understood the language in the same way they did and who quite likely had knowledge of the dance style from having seen performances. The present-day scholar working with these old texts must cope with changes in language usage, as well as face the inability of words to convey satisfactorily detailed information about the movement. Even today we read published instructions such as: "The leg is then flexed in the back placement after which the foot is brought back to first position next to the right foot." and "...step back to 5th position with the left foot." (C.O.R.D. Institute of Court Dances, 1972, page 1, line 46). Is it clear when the word

'back' refers to the backward direction and when it refers to a previous situation? If with our present-day concern for carefully expressed publications we can be unclear, how much more can we expect that in olden days there could be much greater leeway for interpretation of word descriptions? It is on this verbal imprecision that the differences between conclusions reached by historical dance researchers rest. One must describe dance movements in the fullest possible detail, as if for the totally uninitiated. This prospect, quite apart from the actual work itself, is quite daunting.

Chapter Two

Track Drawings

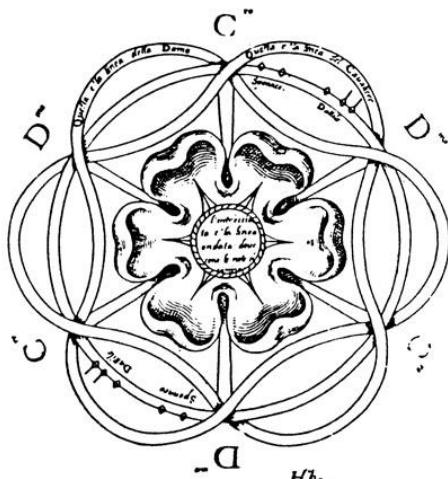
The dancing which flourished in the courts of France and Italy in the 17th century increasingly featured floor patterns, the path of the dancers across the performance area. In addition to showing off the dancers and their costumes to advantage, the floor designs had specific significance - significance related to metaphysical ideas. It is therefore not surprising that the next system to evolve was one which traced the path, the design made on the floor, with indications of the specific steps to be performed on that path.

Caroso's book of 1600, *Nobilità di Dame*, Ex. 12, provides such a floor plan, the famous rose pattern of the contrappasso, according to the true mathematics after the verses of Ovid. As can be seen this plan suggests the pattern of the 'Hey', a circular weaving in and out by dancers moving in opposite directions.

CAROSO

DELLA NOBILTA DI DAME LTD. II. 241

IL CONTRAPASSO FATTO CON VERA MATHEMATICA
sopra i versi d' Ouidio



Ex. 12

Feuillet System

The most highly developed track drawing system was accredited to Raoul Feuillet, although there is evidence that it was originated by Pierre Beauchamp, and also probably based on ideas in André Lorin's notation. The author or authors were leading dance masters in the late 17th century. The Feuillet system, now called the Beauchamp-Feuillet system, was first published in 1700, the book being entitled *Chorégraphie ou l'art de décrire la dance*, Ex. 13. This system demands, even today, a high degree of respect for what it was able to achieve through simple means.

CHOREGRAPHIE
OU
L'ART DE DECRIRE
LA DANSE,
PAR CARACTERES, FIGURES
ET SIGNES DEMONSTRATIFS,

Avec lesquels on apprend facilement de soy - même toutes sortes de Dances.

Ouvrage tres-utile aux Maitres à Dancer & à toutes les personnes qui s'appliquent à la Dance.

Par M. FEUILLET, Maître de Dance.

Seconde édition, augmentée.



A PARIS,

Chez l'Auteur, rue de Buffi, Faubourg S. Germain, à la Cour Impériale.

Et chez MICHEL BRUNET, dans la grande Salle du Palais,
au Mercure galant. .

M. D C C I.

AVEC PRIVILEGE DU ROY.

LE BRUN ET CIE

Ex. 13 Title page of Chorégraphie, 1701

The 1700 textbook, published in Paris, was followed by an almost identical one in 1701. In 1706 a translation appeared in English and Feuillet notation soon spread throughout Europe. In France from 1700 to 1712 there were yearly publications of collections of dances composed by leading ballet masters such as Pecour, [Ex. 14](#). These served the educated classes who took dance seriously and strove to master its intricacies. Complaints were heard that ladies had books of dances instead of Bibles on their bedside tables.

RECUEIL DE DANCES, COMPOSEES

*Par M. PECOUR, Pensionnaire des
menus Plaisirs du Roy, & Compositeur
des Ballets de l'Academie Royale de Mu-
sique de Paris.*

Et misés sur le Papier

Par M. FEUILLET, Maître 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. D C C.

AVEC PRIVILEGE DU ROT.

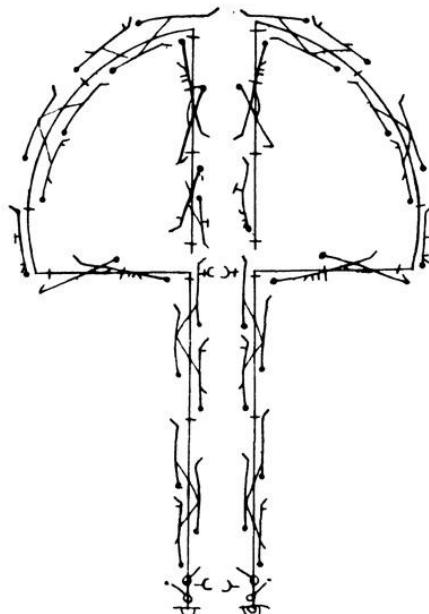
Ex. 14 Title page of Recueil de dances, 1700

In this example from the Bouvée d'Achille by Pecour, Ex. 13, we see the music for this section of the dance written at the top of the page. The notation shows a couple starting at the

back of the room, moving forward, then separating to move on quarter-circle arcs away from each other before taking a straight path to meet again.



la Bourée d'Achille.



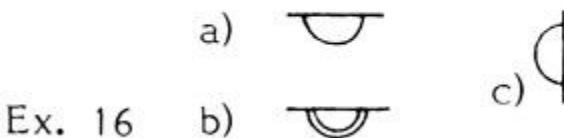
Ex. 15 An example of Feuillet notation

Feuillet: Indication of Performers; Path

The signs for the performers show where they start on each page.

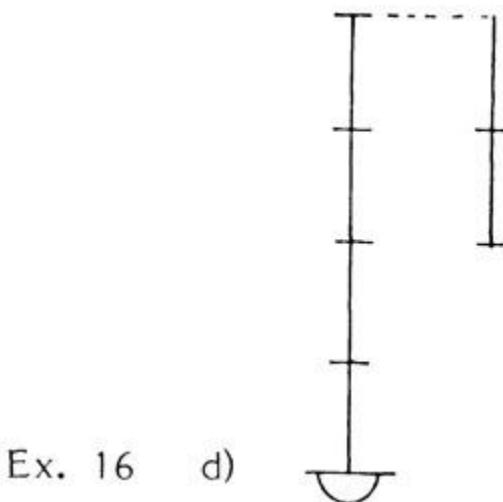
Ex. 16a shows the sign for a man and 16b the sign for a lady. The flat part of the symbol indicates where the person is facing. In c) the man is facing stage right.

Feuillet - Performers



The track to be followed is indicated by a central line marked off by strokes, Ex. 16d, which would relate directly to the bar lines of the music. In the case of steps to be retraced along the same path (which obviously could not be written on top of the preceding notations), the device is used of shifting the path to one side by means of a dotted line. However, the reader understands that the movement should occur on the same path.

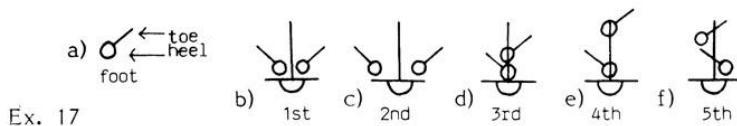
Feuillet - Path



Feuillet: Positions of the Feet

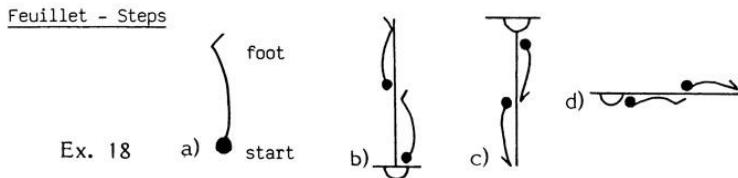
For positions of the feet the foot is indicated by a white pin, the point of which represents the toe and the white circle the heel, 17a. With this sign positions of the feet are easily and pictorially indicated. Ex. 17b shows first position, c) second position, d) third, e) fourth and f) fifth. In these examples third, fourth and fifth positions have the right foot in front.

Feuillet - Positions of the Feet



Feuillet: Direction of Steps

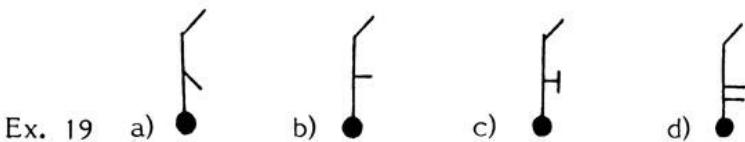
A step is shown by a line extending from a black dot (the 'head') and ending in a slanting line representing the foot, Ex. 18a. This line was drawn by some with a curve, by others as a straight line. Placement of the step indication on the right or left side of the center line also indicates use of right and left leg. Ex. b) shows a step forward with the right foot followed by a step forward with the left. A step backward with the right foot, Ex. 18c, is followed by a step backward with the left. Ex. 18d shows a step to the right with the right foot followed by a step also to the right but with the left foot. In the 18th century a so-called 'crossing' step, in fact, usually only reached a 5th position.



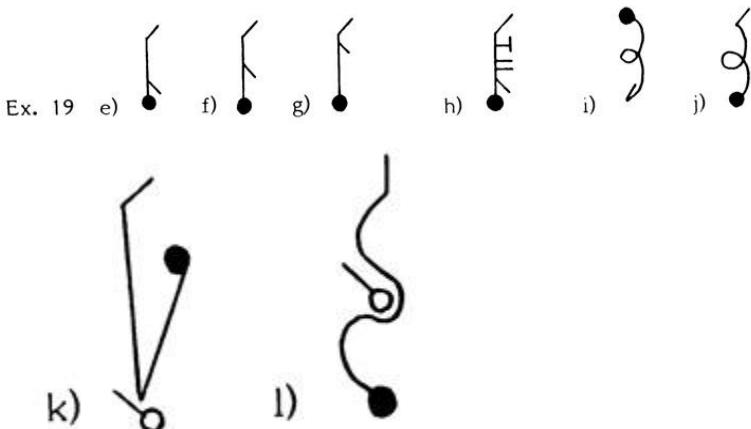
Feuillet: Movement Indications

Movement indications are added to the step sign: 19a shows bending the leg(s); 19b rising on half-toe; c) sliding; and d) shows a spring.

Feuillet - Movement Indications



Placement of an indication such as bending at the start of the step sign, in the middle, or at the end, indicates when the bending occurs. If at the start, Ex. 19e, the bending will be on the left leg before the right starts to take weight; if in the middle of the stepping action, 19f, the bending will occur during the transference of weight; if at the end of the step, 19g, the bending will occur at the conclusion of the step (weight transference). Several indications can be placed on one step sign, as in 19h, in which the bending of the leg and the spring occur on the left foot (therefore a hop) and the step forward on the right foot is performed with a sliding action.

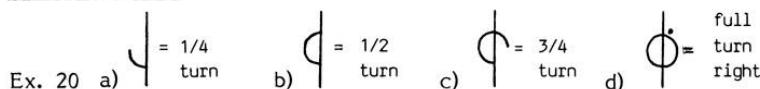


Several indications are quite pictorial, as, for instance, the circular movement used in ‘pas ronde’, a circular leg gesture in preparation for stepping backward, Ex. i), or forward, j), and also for the in-out actions of a beat. Ex. k) shows a beat prior to a step forward while l) shows beating behind, then in front prior to stepping forward.

Feuillet: Turning

The indication for turning is placed on the step sign in a pictorial manner. The following are all turns to the right:

Feuillet - Turning



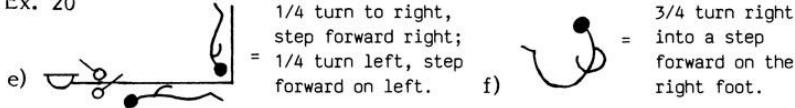
For a whole turn a dot indicates from which side of the symbol the turn sign should be read. Ex. 20d states turning right.

The Feuillet system is unique in that when the reader makes a turn the page of notation does not turn, the top of the page must always face the front of the room. Whereas with other systems the dancer carries the book with him when he turns, in Feuillet notation the book must keep its same relationship to the room, that is, it must have a retention in space. As the dancer turns, he must adjust the book so that it does not turn. He then reads the symbols from the new angle.

This rule affects the drawing of a step subsequent to a turn. The turn usually occurs on the other foot before the step takes place.

Feuillet - Steps with Turning

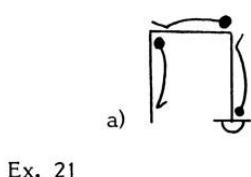
Ex. 20



Feuillet: Walking, Jumping

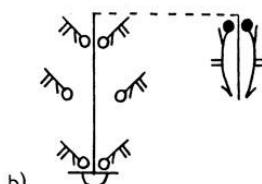
The following simple walking and jumping patterns will be illustrated in each system. Ex. 21a shows a step forward on the right foot, a step sideward on the left foot, then a step backward on the right foot. Ex. 21b is a jumping pattern which starts feet together, knees bent. A jump into 2nd position is followed by a jump bringing the feet together again and then a jump traveling backward landing feet together.

Feuillet - Walking Sequence



Ex. 21

Jumping Sequence

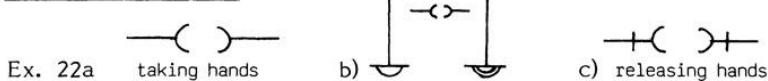


Feuillet: Arm Movements

Indications for the arms and hands are simple. Emphasis in Baroque dance was placed on the skill of intricate footwork; a quiet, elegant carriage of the body was essential and arm movements were elegant in their simplicity. It was grace and coordination which mattered and affected one's standing in

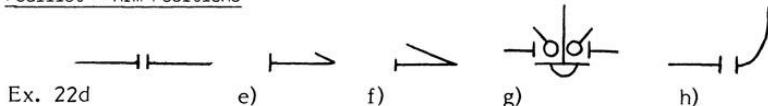
society. Arm movements included taking hands, 22a and b), or releasing hands, 22c.

Feuillet - Taking Hands



The arms are indicated with long elongated 'pins', as in Ex. 22d. Bending the right wrist is shown in Ex. e), bending the elbow in f). A starting position with the arms out to the sides is shown in g). Ex. h) shows the right arm rounded forward.

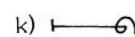
Feuillet - Arm Positions



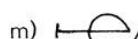
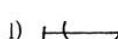
Movements of the arms were usually circular patterns - semi-circles or full circles in an inward or outward direction. First we see circles for the hand, a semi-circle downward in 22i, an upward full circle in 22j (an inward circle), and a downward and outward full circle in 22k.

Feuillet - Arm Circles

Hand

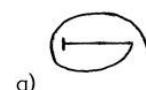
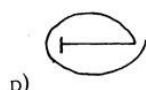


Lower Arm



Whole Arm

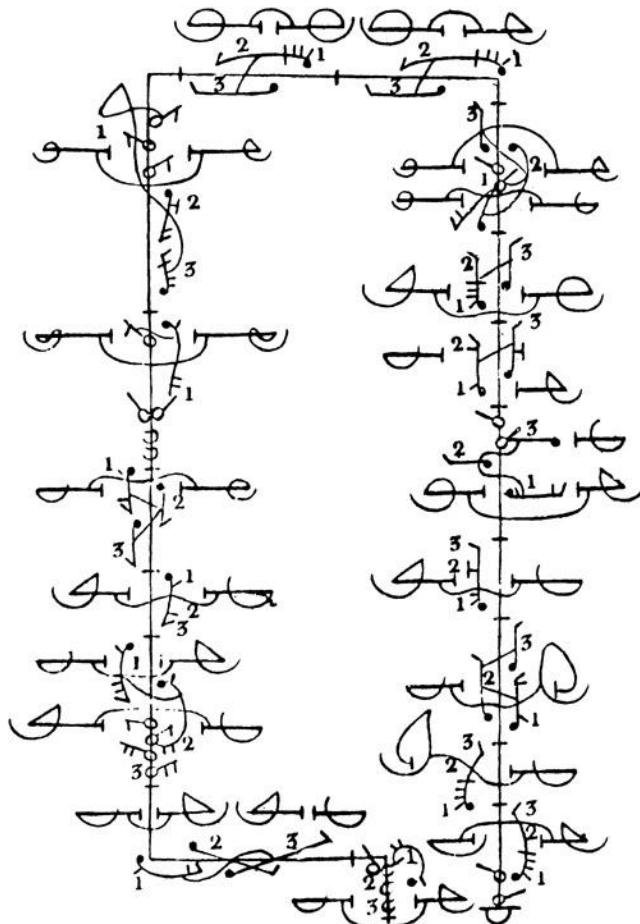
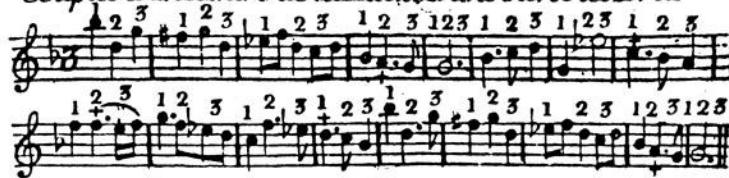
Ex. 22



The same patterns are shown for the lower arm in Ex. 1), m) and n). Whole arm circles, as given in Feuillet's book, are shown in 22o, p) and q). In fact use of upward full arm circles was rare.

A sequence of arm movements is illustrated in [Ex. 23](#), an excerpt from Malpied's 1770 *Traité sur l'art de la dance*.

Couplet d'une Entrée de la Haute Danse avec les Bras



Ex. 23 Example of arm movements from Malpied's *Traité sur l'art de la dance*

These, then, are the basic indications of which the Feuillet system is comprised. As it became more widely used by others the notation was modified to include clearer indication of timing and other details.

Feuillet: Advantages

What are the advantages of a track drawing system? The floor design is immediately evident, although retracing of path somewhat blurs the actual pattern. Floor pattern and movement indications are combined and much detail given in a simple way. Many of the signs are pictorial enough to be easily learned. There is a clear general coordination with the music. The Feuillet system was widely used by the educated classes; teachers and students found mastering it a rewarding task. Notators had the opportunity to practice, and a wide readership provided the disciplines of practical usage which every system requires. Present generations of dance researchers and historians master the system to have access to the wealth of published dances.

Feuillet: Disadvantages

What are the disadvantages of this system? First, as with almost all systems, the writer took for granted a certain amount of knowledge on the part of the reader; thus much important information was left out. An obvious example is the fact that while bending, the knee is indicated in the notation as happening at the start of a step and this step is shown to

take place at the start of a new bar of music; the bending should, in fact, occur on the other leg prior to that first count - that is, as a preparation, an up-beat. We know this to be so from writings of this period, but it could not be known if one merely made a direct literal translation from the notation. Timing is only shown generally. We know which movements happen within a measure of music, but not how these actions are to be proportioned within the specified time. For example, if there are three steps occurring in a measure with four beats, we cannot know exactly how they should be apportioned. No doubt the timing was common knowledge at the time, so no specific indication has been given. Specialists working with this material, who have a thorough knowledge of the period, can come to a physically logical conclusion as to what must have been the correct timing. Though the system served the 18th century so well, it offers nothing as a practical system for dance today.

A significant disadvantage in the system was the writing of the leg gesture as part of a step; no allowance was made for indication of independent leg gestures or level of leg gestures. The system was very much a product of, and suited to, the dance of its period.

In conclusion, we see a very intelligent, workable system for the dance it served, one which had a widespread use for nearly a century throughout most of Europe. The number of publications in different countries and the system's level of popularity reached a height not since enjoyed by any method of notation.

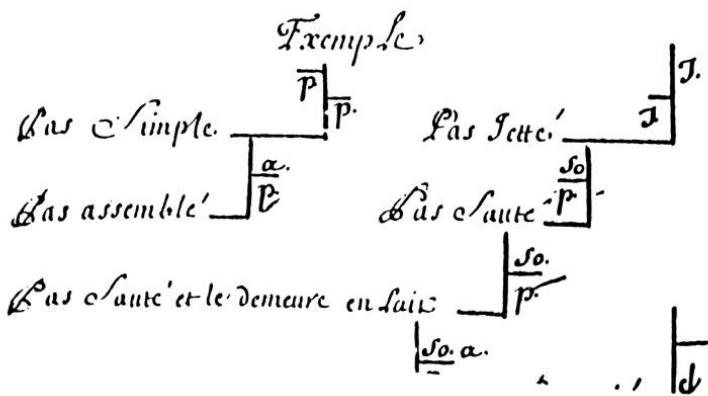
Why did it fall into disuse? Chiefly because the dance for which it was specifically designed went out of fashion. Early

in the 18th century, dance in court and theatre were the same; gradually theatrical dance encompassed a wider range of movements, including ‘acrobatic’ movements used by street dancers. The French revolution inevitably had its effect on court dance, as did the advent of English Country Dances (contredanses) which became the rage in France in the late 18th century. Many of these dances, which used much simpler steps but more intricate floor patterns involving four or more people, were published by John Playford, as we have seen. Other notations featured floor plans with diminished detail in describing steps.

Lorin

André Lorin was the first to introduce the English Country Dances to France, his book *Livre de contredance* having been published ca. 1688. His manuscript for the dance *Christchurch Bells* follows all four couples as figure drawings on the dance floor, [Ex. 25](#). Movement indications are placed under the music; word descriptions for the overall action are written at the top of the page for the man and at the bottom of the page for the lady. His code for the abbreviations of steps, [Ex. 24](#), is basically a letter abbreviation for the name of each step; he does not describe the step itself.

Table pour connôitre les marques des pas

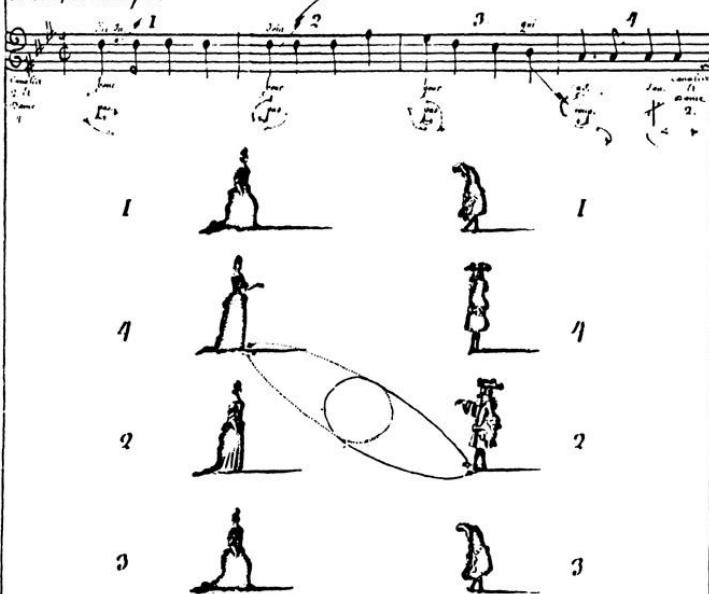


[Ex. 24](#) Excerpt from Lorin's Livre de contredance

The word abbreviations are placed under the music and above the floor plans, [Ex. 25](#).

Contredance du R oy.

Le Cavalier 2. et la Dame 4. partent tous deux du pied droit pour faire volte ensemble, suivant la démonstration cy dessous, lequel tour est composé de trois pas de bânoire et d'un couplet ensemble. A la 1^e mesure de l'air. Ils se reposent la main droite par une petite Inclination, à la 2^e. Ils la rejoignent, & à la 3^e glo. 1. - qui suit pour retourner à leur place, - pourquoi le Cavalier 2 fait un petit saut devant la Dame 2. & la Dame 4 ne danse pas.



La Dame 2. et le Cavalier 4. se reposent pour le voyage en dedans dans cette figure suivante que le Cavalier 2. et la Dame 4. dansent ensemble, & dans le temps que la Dame 4. fait son petit saut, le Cavalier 2. fait aussi ce qu'il ferait normalement au milieu de la 1^e mesure, le Cavalier 4. danse pas.

Le Cavalier et les Dames 1. et 3. qui sont à la suite de la quatrième après résur fait la reprise de la figure précédente jusqu'à ce qu'ils soient à leur place suivant la démonstration qui suit vendredi tout le temps que les Cavaliers et les Dames 2. et 4. dansent pour rejoindre pas leur nombre.

1	2	3	Dame 2. Cavalier 4.

Ex. 25 Example of Lorin's notation

As the contredances became increasingly popular in France it was inevitable that floor plans would be the main device used

for recording the dances. Ex. 26 is from a French contredanse by Lorin, ca. 1685, one of many such examples.

Duc de Chartre; l'heure est bâtie; le bainouf;,¹⁸

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

Ex. 26

From Livre de contredance - présenté au Roy par André Lorin

Landrin

The French dancing master, Landrin, published collections of contredanse between 1768 and 1785. As can be seen from Ex. 27, each comprised a sheet with title page, simple verbal description of the steps, floor plans and music.

<p><i>L'Amazzone Contre-Danse, François e</i></p>	<p><i>L'a JAMAIQUE ET LA DANDILLY</i></p>	<p><i>CONTRE-DANSE EN RONDOW L'AIR, à la FIGURE Par M. TULLIEN Mître de Danse, et des Grands Théâtres à Paris. Mus. au Tom. Par LANDRIN Prix. 4; l. à Fendelle.</i></p>		<p><i>APARIS</i></p> <p><i>(Landrin M. de Marique, et M. de Gen- dans, enie des Boucheries St. Ger- main, proche le petit Marais. écrivain M. de Cartigny, pour des Provinciales Et au Adresses, Ordinaires A. P. D. R.</i></p>
<p><i>LADANDILLY Contre-Danse, François e</i></p>				

EXPLICAT-ON

Des Figures, de ceat Contre-Danse

N^o 2 et 3 e grand ronde à l'ordinaire

FIGURE

2. Un Cuir avec la Dame. Faire avoisinont un tour de rond dans le milieu.
3. Balancer, et rigaudon.
4. Tranvasser, avec places vis à vis, et Riga-
5. Chabot et déchabot sans rigaudon.
6. Repasser, sur nos places.
7. Dernier en tournant à gauche, renverser sur nos places.

La DANDILLY

Pour la Main —

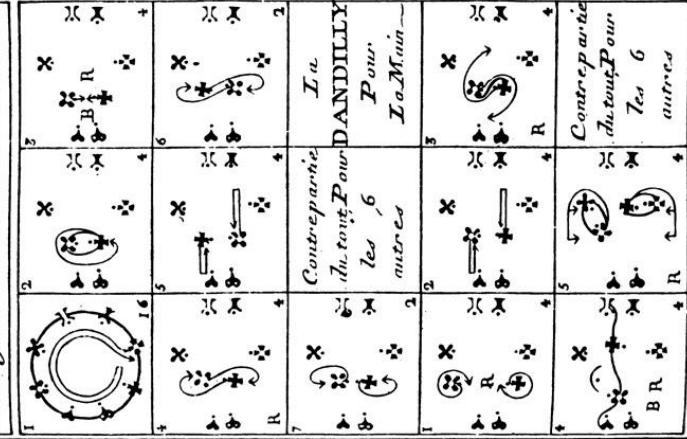
FIGURE

1. Enjouer, et Courante la dame. Denier à droite sur place, et rigaudon.
2. Chabot à droite et gauche, sans Rigaudon.
3. Le Cuir, et la Dame, se donnant la main droite, tournent 3 quart de tour, et Rigaudon.
4. Sais quitter la dame, le Cor. Donc la main gauche à la dame. Il va droite de main à la dame avec Cuir de sa droite, dont les talons prennent le pointe droite, balancer, et rigaudon.
5. Les 2 mains changeant main, la dame, en tournant, retrace avec places et Rigaudon. Contrepartie du tout pour les 6 autres.

Fin —

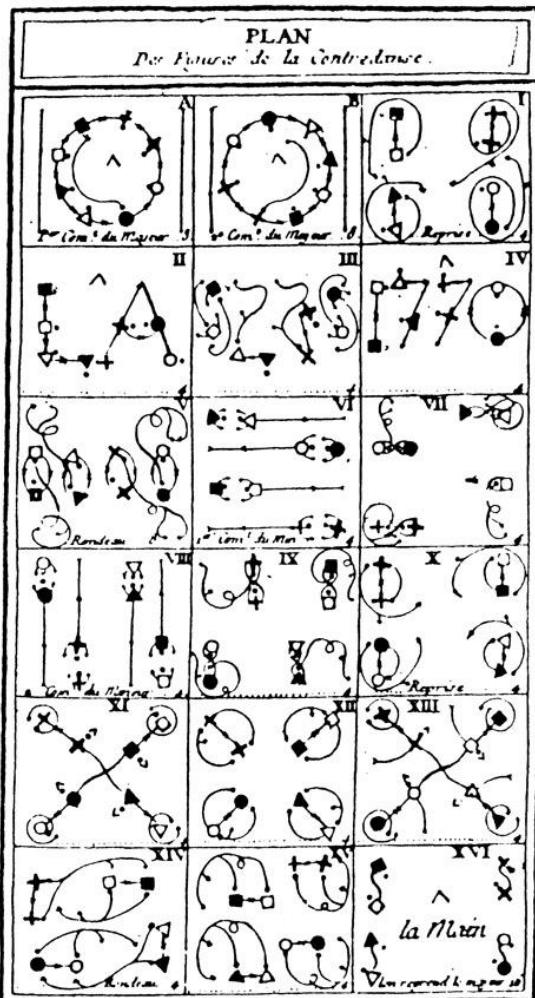
TRAITS

Des Figures, de ceat Contre-Danse



Ex. 27 La Jamaïque et la Dandilly Contredanse by Landrin, (outer pages) Inner pages of La Jamaïque et la Dandilly showing the word notes and floor plans.

An interesting example from a Contredanse Allemande shows the floor plan design ‘spelling out’ the name of the dance, ‘La 1770’, (see floor plans II and IV), Ex. 28.



Ex. 28

It can be seen from the intricate floor designs of this contredanse and others like it which involve several couples that recording these dances in Feuillet notation would have been difficult if not impossible. By the beginning of the 19th century the Feuillet system had fallen into disuse, but not

before it had had a spectacular career, even by today's standards. The many collections of dances still preserved provide a rich source of information on dances of that period.

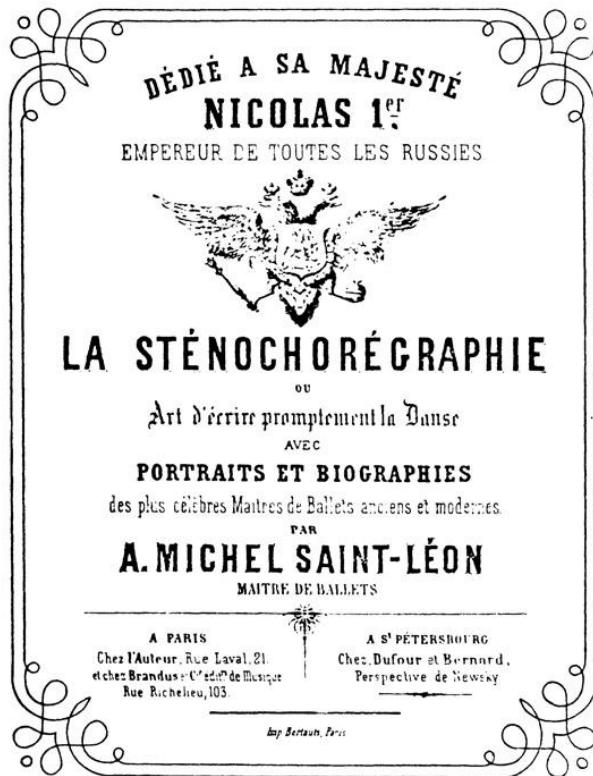
Chapter Three

Stick Figure (Visual) Systems

Some systems which come under the heading of ‘visual’ or ‘pictorial’ use obvious stick figures, others are more stylized. Some recent inventions which use more abstract indications are still concerned with representing movement visually.

Saint-Leon System

Historically, the first stick figure system emerged in the middle of the 19th century. Published in Paris in 1832 by Arthur Saint-Léon, the system was called Sténochorégraphie, Ex. 29.



Ex. 29

Saint-Léon started life as an infant prodigy on the violin, then turned to dancing and made that his life work, first as the leading male dancer of his period and later as a teacher and choreographer. He was the 'Massine' of his time, traveling extensively and putting on his ballets in many different countries. There is no doubt that he wore himself out from his ceaseless activities, for he died at 49, far too young, soon after choreographing Coppélia.



Ex. 30 Arthur Saint-Léon

In such a busy life it was remarkable that he found time to invent and publish a system of notation and include in the book the score of his ballet, the Pas de Six from *La Vivandière*, [Ex. 31](#). Unfortunately only a few other scraps of notation in his system have been found. Considering what a prolific choreographer Saint-Léon was, it is indeed sad that he did not himself make greater use of his notation system. It is, however, an oft recurring story; no one can pursue a career as a dancer-choreographer-teacher and at the same time develop and fully use a system of notation.

A musical score for a Cavalier's solo in the Pas de Six from *La Vivandière*. The score consists of four staves of music. The first staff begins with a treble clef, a key signature of one sharp, and a common time signature. The second staff begins with a bass clef, a key signature of one sharp, and a common time signature. The third staff begins with a bass clef, a key signature of one sharp, and a common time signature. The fourth staff begins with a bass clef, a key signature of one sharp, and a common time signature. The music features various rhythmic patterns, including eighth and sixteenth note figures, and dynamic markings such as *p* (piano) and *f* (forte). The score is annotated with lowercase letters *a*, *b*, *c*, *d*, *e*, *h*, and *i* placed above specific measures to identify different sections or motifs of the solo.

Ex. 31 Cavalier's solo in the Pas de Six from *La Vivandière*

Zorn System

The next system to emerge was that of Friedrich Albert Zorn, whose book Gvammatik der Tanzkunst (Grammar of the Art of Dancing) was published in Leipzig in 1887, Ex. 32.

Grammatik der Tanzkunst.

Theoretischer und praktischer
Unterricht in der Tanzkunst und Tanzschreibkunst
oder
Choreographie.

Nebst
Atlas
mit
Zeichnungen
und
normalischen
Uebungs-
Beispielen



mit
choreographischer
Bezeichnung
und
einem besondern
Notenhefte
für den
Musiker

von

Friedrich Albert Zorn,

Lehrer der Tanzkunst am Kaiserl. Russischen Nikolaien-Gymnasium in Odessa,
seit Februar 1840.

Ex. 32

Leipzig,
Verlag von J. S. Weber.



Ex. 33 Friedrich Albert Zorn

F. A. Zorn, who for many years was ballet master in Odessa, was a meticulous scholar highly regarded by other dance

masters of his day. His book aroused considerable interest among the wide circle of dance teachers in Germany. It also later received acclaim in the United States, where an English translation was published in Boston in 1903, [Ex. 34](#). However, in both countries inertia seems to have set in, for despite enthusiastic proclamations, there is no evidence that anything further developed in the use of his notation.

Zorn's book is principally concerned with describing in detail the correct performance of the established dance technique of the time. The notation is used to analyze movements and to record exercises and dance steps. The book includes several social dances, and, fortunately for us, the Caohucha as danced by Fanny Elssler.

GRAMMAR
OF THE
ART OF DANCING
THEORETICAL
AND
PRACTICAL

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

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

Translated from the
German of

FRIEDRICH ALBERT ZORN

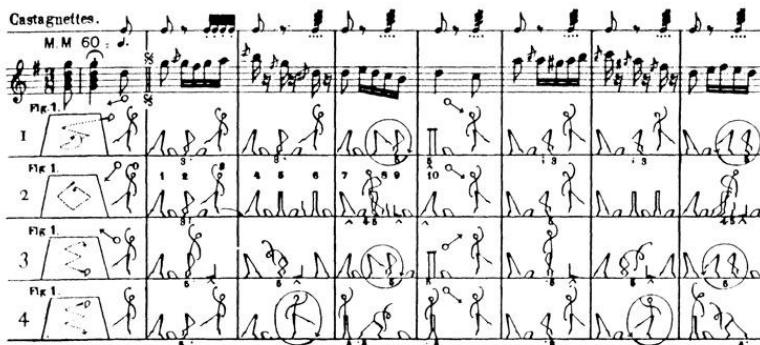
Teacher of Dancing at the Imperial Russian
Richelieu-Gymnasium, Odessa,
and Member of the German
Academy of the Art
of Teaching
Dancing

Edited by ALFONSO JOSEPHS SHEAFFE
Master of Dancing, Member A. N. A. M. of D.

BOSTON, MASSACHUSETTS

1905

Ex. 34 Title page of Zorn's book



Ex. 35 Zorn notation: excerpt from the Cachucha

Recent Inventions Using Stick Figures

The idea of a stick figure was not used again until 1951 when the book *Tanz und Bewegungsschrift* (Dance and Movement Writing) was published by Walter Arndt in Dresden. Arndt placed his figures under music notes to indicate timing and provided information on directions faced, part of foot used, etc., through abstract signs placed below the figures. Arndt, an engineer in industry, had tested his system at the Palucca School and a second volume was planned, but nothing further has been heard concerning the use of this system.

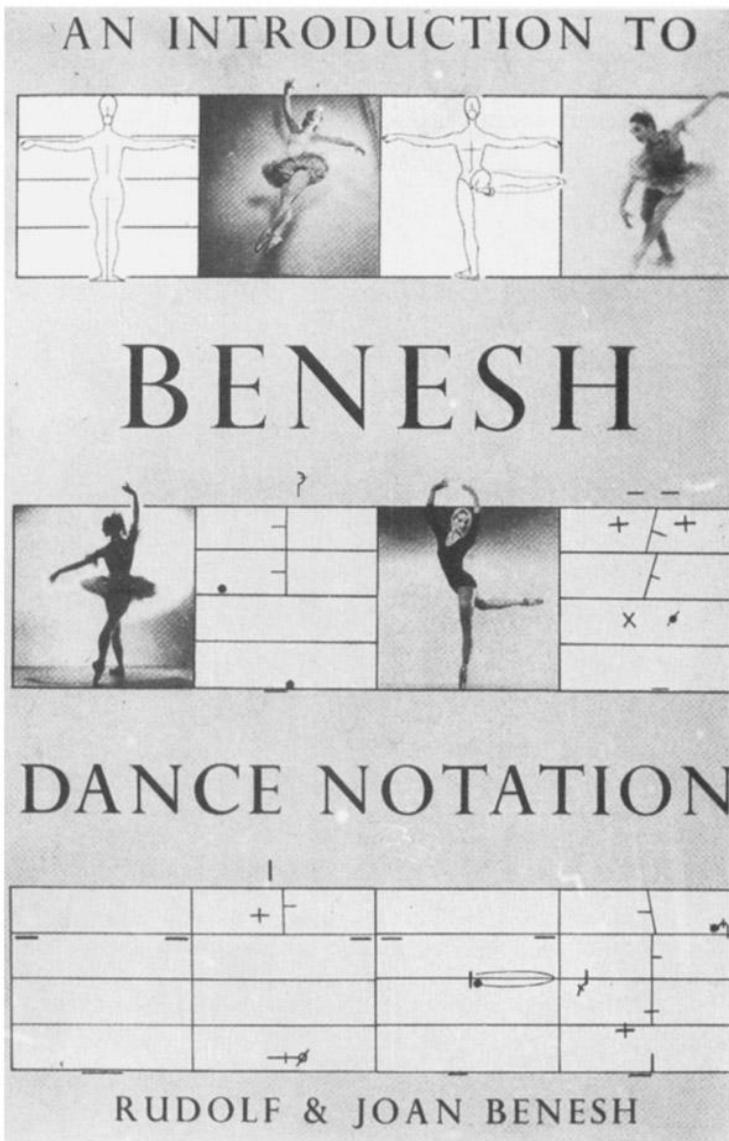
The mid-fifties seemed a period of resurgence of the stick figure idea. A more prolific inventor, Walter Paul Misslitz, published his first book, *Tanzfigurenschrift* (Dance Figure Script) in 1954, his *Ballettlehre* (Ballet Teaching) in 1960, and, in 1977, the most recent edition of his *Gymnastiklehre*. An interesting aspect of Misslitz's system is his use of

half-red, half-black stick figures to distinguish right and left limbs. He uses few additional signs, conveying the sequence of movement through use of many consecutive figures.

In 1955, in New York, Letitia Jay produced a more involved stick figure system. Miss Jay was an ethnic dancer who, during a year of enforced rest due to an injury, had used the time to work on the idea of movement notation. Believing that the Laban system was too cumbersome and difficult and that a simple device was needed, she evolved the 'Pictograph' - a pictorial representation of the dancer combined with arrows and other movement indications. Despite much effort on her part to spread use of her system, Jay had little success and the system has joined those no longer used or being developed.

Benesh System

The best known visual system is that of Joan and Rudolf Benesh, first published in 1956 in London as An Introduction to Benesh Dance Notation, Ex. 36.



Ex. 36

Joan Benesh was a member of the Royal Ballet (then the Sadler's Wells Ballet) in England; her husband Rudolf was both an accountant and an artist. Inspiration for the system came from her need for a way to write down dance sequences. The first teaching of the system was based on ballet. However, in the book published the next year Benesh stated that he looked upon it as a pure movement notation with no consideration other than it had to cover every possible movement of the human being. In due course it was applied to other dance forms and other types of movement and was developed to meet these needs.



Ex. 37 Joan and Rudolf Benesh

The Benesh system became established through its adoption by the Royal Ballet; full-time notators were employed by the company and use of the system spread to other ballet companies around the world. A center in London, the Benesh

Institute of Choreology, was established in 1962. The Institute provides full-time notator/reconstructor training. The initial ballet-based introductory textbook was followed by others which include use of the system for modern dance and clinical records. Publications have been comparatively few; most other materials are generally available through subscription. Many scores have been written in the system; [Ex. 38](#) shows an excerpt. It is interesting to note that the initial idea behind the Benesh system bears a strong resemblance to that of Sol Babitz, a system published in California in 1939 of which Benesh had no knowledge.



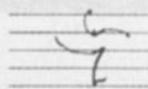
Ex. 38 Illustration of a score in Benesh notation.

Extract from Voluntaries Choreography © Glen Tetley 1975

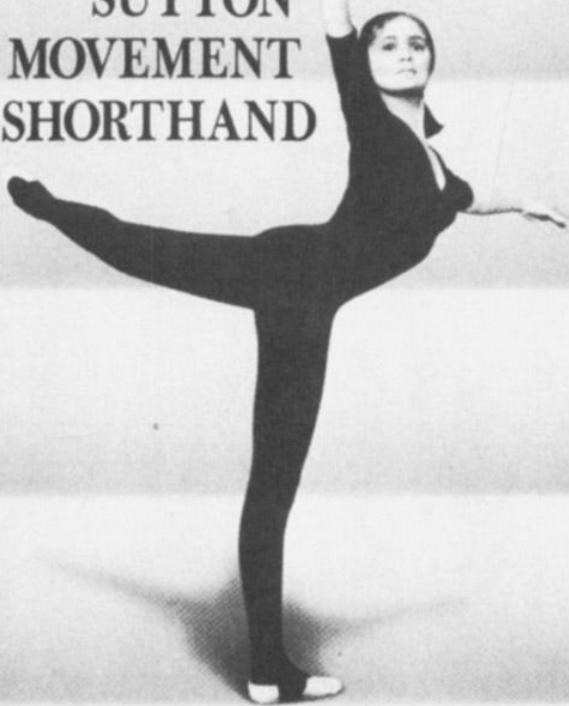
Sutton System

A virtually full-figure system appeared in the U.S.A. in 1973, in the book Sutton Movement Shorthand, The Classical Ballet Key, Ex. 39, invented by Valerie Sutton, a young ballet dancer.

A quick visual easy-to-learn method of recording dance movement



SUTTON MOVEMENT SHORTHAND



BOOK ONE *The Classical Ballet Key*

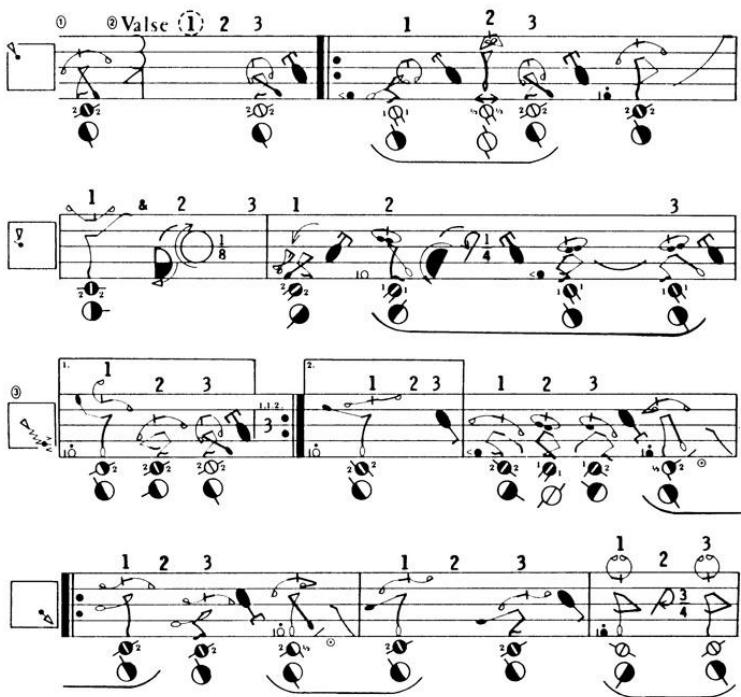
VALERIE SUTTON

Ex. 39

In 1974 a center was established in California with membership and a magazine. Publication of teaching materials and ballet excerpts soon followed. In 1973 an updated manual giving modifications and specific writing rules for the system was published.



Ex. 40 Valerie Sutton



Ex. 41 Excerpt from the Sutton score of the Lilac Fairy Variation from The Sleeping Beauty

The system has recently been developed to include sign language for the deaf, Ex. 42; regular publication of a sign language newspaper has been established in Denmark as well as in the U.S.A.

Ex. 42



All stick figure or visual systems have essentially no movement analysis. The writer records what he sees rather than what is experienced by the performer.

Stick Figure (Visual) Systems: Indication of Body

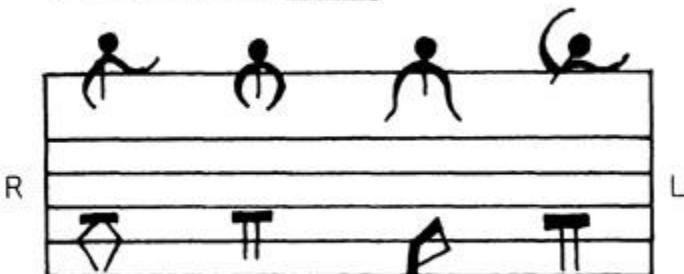
Obviously the drawings themselves indicate the body. With the Jay and Sutton systems this is completely so. Some systems in this category use only a base line for the floor; others use the five-line staff.

Saint-Léon, Zorn: Indication of Body

Saint-Léon provides a staff, as shown in Ex. 43, in which a single upper line is used for the arms, body and head. Below this, on a five-line staff for the legs, supports are written on a line, jumping above a line. Progression in use of the lines, downward or upward, indicates steps traveling toward or away from the audience, as explained later.

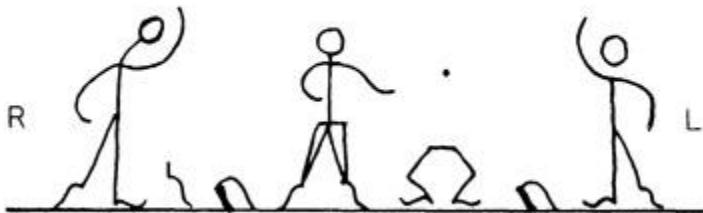
In contrast to Saint-Léon, Zorn dispenses with a staff, using only a base line, Ex. 44. The figure itself shows the parts of the body, hence the main need is to indicate when the body is on the floor or in the air. Often only the lower part of the body is indicated when concentration is on the leg work.

Saint-Léon - Staff



Ex. 43

Zorn - Staff



Ex. 44

In drawing the figures both Saint-Léon and Zorn take the audience point of view so that the limb which is at the right on the paper is, in fact, the dancer's left. For the performer reading the notation everything must be transposed. This points out a basic question: Is the notation being written for the dancer (the performer) to read, or only for the ballet master? It would appear that the dancers were not expected to read the scores of their own parts, and that the writer was concerned only with the external, audience point of view.

Benesh: Indication of Body

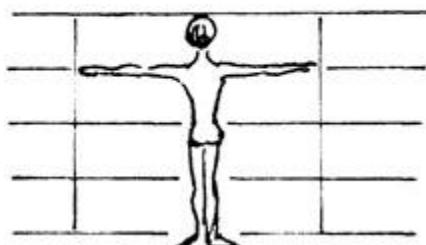
Benesh adopted the five-line music staff to represent the body. He stated: "Any attempt at a dance notation must provide for it to be written upon the music stave. This not only solves many problems such as tempo and scoring, but has many obvious practical advantages. The problem was therefore one of adapting the music stave so that it would carry visual impressions." The five lines, he stated, form a perfect base or matrix for the human figure. The bottom line

becomes the floor, and the others, working upwards, represent the knee, waist, shoulder, and top of the head.

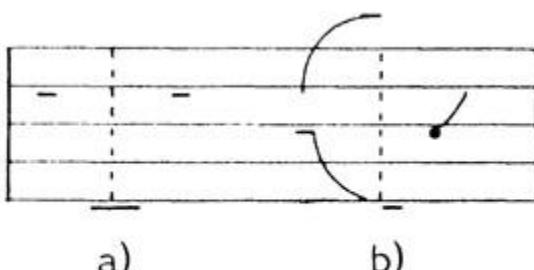
A section of the staff, a square, as when the arms are outstretched side-ward, forms a matrix representing the figure seen from the back; thus right and left sides are appropriately placed on the page, Ex. 45.

Benesh - Staff

Ex.
45

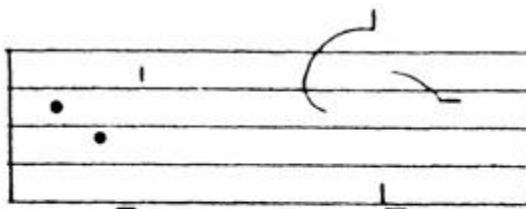


Ex.
46



The matrix representing the figure is understood to appear at intervals along the staff. As a help to beginners, a dotted line shows the center of the matrix, as in Ex. 46a and b); later this indication of center is no longer required and so only the base

support is shown and the position of the extremities and movement lines, Ex. c) and d). The staff takes care of the main movements of the principal parts of the body. Indications for detailed body parts are written above the staff by means of letters, numbers and signs.



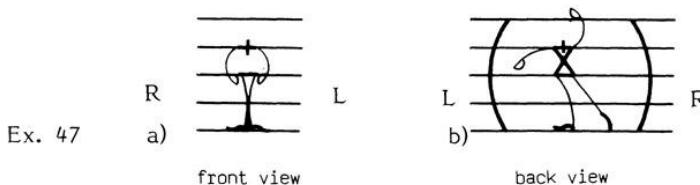
Ex. 46 c)

d)

Sutton: Indication of Body

The Sutton figures, placed on a five-line staff, are drawn as seen from the audience with the result that right and left sides are reversed, 47a. But when the figure faces away from the audience, as in 47b, right and left are as the reader sees them. The back-to-the-audience situation is shown by ‘suspenders’ (‘braces’) drawn as an ‘>X’ across the back of the figure.

Sutton - Staff



The head is not included in the Sutton figure unless there is a facial expression to record in which case it is drawn alongside the figure in the top space. Signs for particular hand configurations are included when needed and are placed at the extremity of the arms.

Stick Figure (Visual) Systems: Indication of Direction, Level

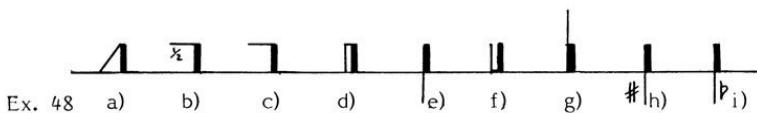
Placement of the limbs and torso in a particular direction and at a particular height (level) is, for the most part, pictorial in visual systems. Representing on two-dimensional paper a position or movement that exists in three-dimensional space poses the question of how the missing third dimension is to be indicated. In some systems the stick figure is drawn in profile for clarification and a note added to state that a turn has not occurred. When the dancer faces at an angle to the viewer the need for perspective arises if the figure drawing is also made to turn. In addition to directional placement of the arms, legs, torso and head, the reader needs clear indication of where the dancer is facing in relation to the audience, i.e. the orientation to the front of the room.

Saint-Leon: Direction, Level

In Exs. 48a - c) below, three levels for sideward gestures of the right leg are shown, the heavy vertical line being the support, the light line the gesture. Ex. 48a shows touching the floor; b) shows half-height indicated by addition of the fraction 1/2, and c) is hip height. Ex. 48d indicates the right leg forward touching the ground; in e) it is forward

half-height. Ex. 48f denotes the right leg backward on the ground while g) is backward at hip height.

Saint-Léon - Direction, Level



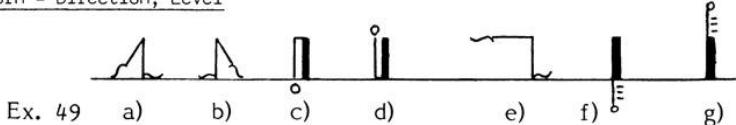
Diagonal directions are shown either by ‘augmenting’ the forward direction with the musical sign for a ‘sharp’, as in 48h, thus producing the open diagonal, or by ‘diminishing’ it with a ‘flat’, as in 48i, producing the crossed diagonal. It is important to note that Saint-Léon’s system was limited to the main clear-cut ballet positions. A ‘diagonal’ gesture occurs while the body faces one of the front corners on stage so it seems evident that to him ‘diagonal’ meant to the corner of the room rather than in a body diagonal, this latter being seldom used in classical ballet.

Zorn: Direction, Level

Zorn’s figures are more directly pictorial than Saint-Léon’s. The right foot is pointing to the side in 49a; in b) it is the left foot. In c) the right foot is pointing forward, toe touching the ground. The heavy line represents the support - in this case, the left - and the light line represents the gesture. In d) the light line is drawn upward which is away from the audience, hence a backward touch. Note: for forward and backward, addition of a little white circle indicates toe pointing. In e) the right leg is shown to be at hip level and the toe pointing is indicated pictorially in the drawing of the foot. When the leg is forward or backward, hip height is shown by the addition of

three lines as in Exs. f) and g); f) is forward and g) backward. The fewer the lines, the lower the leg. The white circle is again needed in Exs. f) and g) to show a pointed foot.

Zorn - Direction, Level

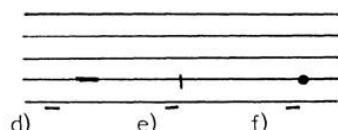
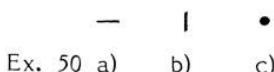


Benesh: Direction, Level

In the Benesh system special meanings have been attached to the words ‘direction’ and ‘level’. Direction refers to where the performer faces in relation to the audience; level refers to the lateral plane of the dancer’s body. The figure is consistently viewed from the back, as though flat against a wall, thus right and left sides are correctly placed for the reader. The extremities of the limbs are plotted on the matrix (staff) to indicate placement in relation to the torso. Location in the lateral plane, i.e. ‘level’ is shown by a short horizontal stroke, Ex. 50a; a vertical stroke indicates location forward of that plane, b), and a black dot, c), indicates behind that plane. Ex. 50d shows the right leg out to the right side, in e) it is forward and in f) it is backward, each of these leg positions is at knee height.

Benesh - Direction, Level

(Limb Extremity)

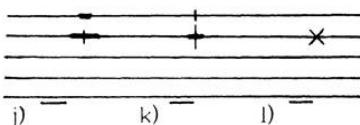


When a limb is bent the mid-joint must also be plotted. Location of the mid-joint is indicated by modifying the above signs into crosses. Lateral placement for knee or elbow is shown by 50g; placement forward of ‘level’ by h), and backward by the cross of i). Ex. 50j illustrates the right elbow sideward of the shoulder, the hand above the elbow. In k) the elbow is forward of the shoulder, the hand above the elbow. A backward placement for the elbow is given in l), the hand being out to the side, ‘level’ with the body.

Benesh - Direction, Level

(Mid-joint)

+ † ×
Ex. 50 g) h) i)

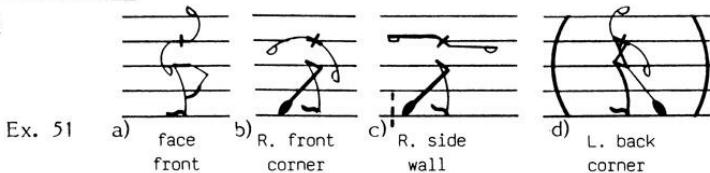


Sutton: Direction, Level

The figure drawing, which is turned when the dancer faces into different room directions, shows in itself the direction of the limbs. Ex. 51a indicates a position facing the audience; in b) the figure is facing the right front corner and in c) the right side wall. Note the addition in 51c of a dotted base line to show that, because the figure cannot be drawn totally sideward, it should be interpreted as facing the wall. Ex. 51d shows a position facing the left back corner, the ‘X’ joining shoulder and hip lines indicating the back, as mentioned before.

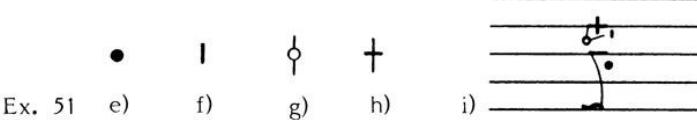
Sutton - Direction,

Level



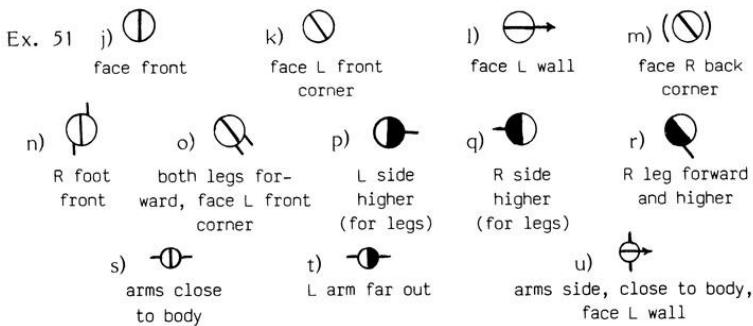
When a limb is toward or away from the audience (the reader), perspective makes it difficult to draw the figure clearly, hence signs are used. A black dot, 51e, shows placement of the extremity toward the reader, and a vertical line, f), shows placement away from the reader. Placement of the mid-joint (elbow or knee) is shown by combining a vertical stroke with a white circle, g), for toward the reader and the addition of a short horizontal stroke, h), to denote away from the reader. In Ex. i) the left leg is forward toward the reader, the right elbow is forward, while the left arm is diagonally back.

Sutton - Direction Symbols



Additional indications, Exs. j) - u), placed below the figure, clarify details not easily seen from the drawing. Circular signs show where the performer is facing, which limb is in front, which limb is higher than the other, etc. Smaller position symbols show if a limb is close to, or far from the body. Larger position symbols show if one limb is higher than the other. The first row under the figure is for arms, the second row for legs. Note: use of parentheses when the figure is facing away from the audience as in Ex. 51m.

Sutton - Facing Signs, Limb Placement



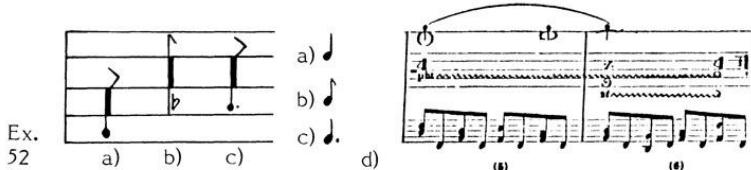
Stick Figure (Visual) Systems: Timing

Timing is usually shown either by placing movement indications underneath the music or by indication of counts above the figure - both obvious devices. Most visual (stick figure) systems have resorted to one or other of these solutions.

Saint-Leon: Timing

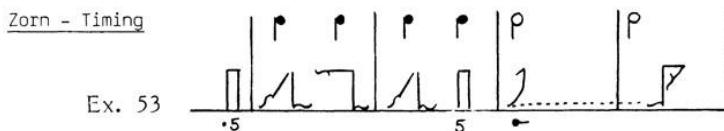
When the dance rhythm is different from that of the music, Léon adds music note indications to the movement signs (half-note minim, quarter-note or crotchet, etc.). Sustained movements for the arms) are shown by use of phrasing bows, Ex. 52d.

Saint-Léon - Timing



Zorn: Timing

Zorn draws the appropriate figures between bar lines to show the movements that occur during a specified amount of time. Ex. 53 indicates point, lift, point, close, taking one count each (four quarter notes or crotchets), then slowly lifting the left leg to retiré during the following four counts (two half notes or minims). For a slow movement dotted lines are used to show an extension in time, with the final destination of the movement being written at the end.

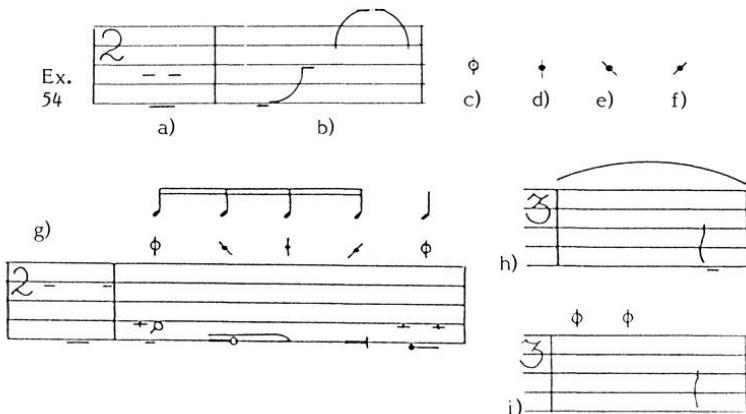


Benesh: Timing

Benesh either places the notation under the music or uses a special set of indications for beats and subdivisions of beats. First, the number of beats in a measure is stated at the beginning of the staff. In Ex. 54a two beats are stated. If only two movements are indicated in the measure it is understood that each takes one beat, b). If there are more or the time division is uneven, then indication of beats must be given. Ex.

54c is the sign for a main beat in a measure; Ex. d) is the half subdivision. The first quarter subdivision is shown by e) and the last quarter subdivision by f). Additional signs exist for triplets and other subdivisions.

Benesh - Timing

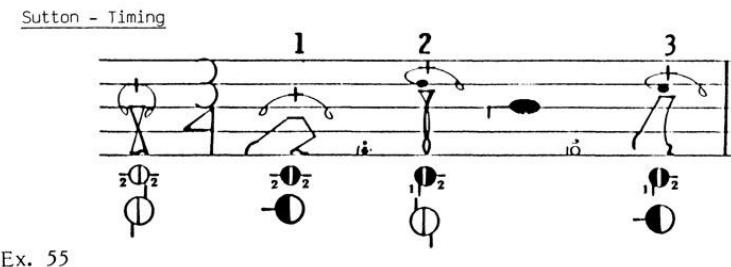


In Ex. 54g the music notation for the rhythm of this step pattern, also ‘spelled out’ in Benesh rhythm signs, is shown above the staff for clarification; it is not actually needed. To show a slow movement the action is written at the end of the time period and a bow is drawn from the moment of starting to the end position. In 54h the left leg takes three counts to arrive forward horizontal; in 54i the leg moves only on count 3, there is no movement on counts 1 and 2.

Sutton: Timing

In the Sutton system either the meter (time signature) is written at the start of the score and counts are placed over the

figure drawings as in Ex. 55, or the notation is placed under the music score.



Stick Figure (Visual) Systems: Bending

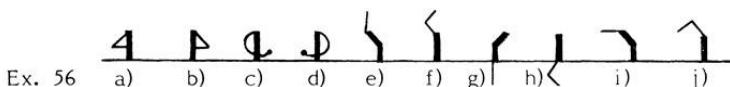
Flexion (bending) is a basic anatomical action. How has each system indicated this form of movement? Visual systems do not provide signs for the movement of flexing but indicate the result of flexing through indicating the spatial destination of the parts of the flexed limb.

Saint-Leon: Bending

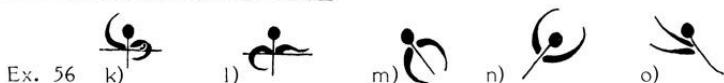
Saint-Léon's notation for bending the legs is quite pictorial; a heavy line is for the supporting leg. Exs. 56a and b) show the retiré position; c) and d) are the cou-de-pied position derrière (as shown by the black dot at the end of the leg gesture symbol). Ex. 56e indicates a bent supporting left leg with the right leg gesturing backward. In f) the left leg is straight and the right backward gesture is bent. Exs. g) and h) show similar positions but with the right leg gesturing forward. In 56i the left supporting leg is bent while the sideward gesture

for the right leg is straight; in j) the gesture is bent, the support straight. For the bending of arms and torso, Saint-Léon's notation is also pictorial, as in Exs. 56k - o). Since his main concern was ballet, no other examples are given in his book.

Saint-Léon - Bending the Legs



Saint-Léon - Bending the Arms and Body



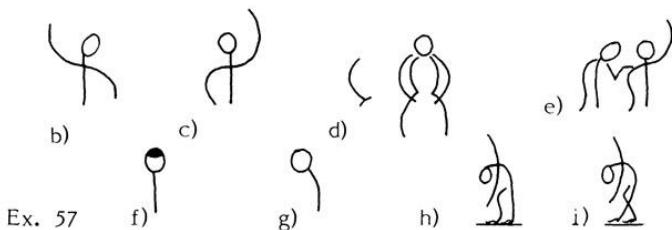
Zorn: Bending

In contrast, Zorn was concerned with many national dances; therefore a variety of bent limbs is illustrated in his book, Exs. 57a - e). The indications for legs, arms and body are pictorial. Bending the head forward, f), is shown by shading the top of the circle representing the head. Inclining (bending) the head to the side, g), is shown by a curved neck, as expected. Ex. 57h shows 'ramassé' bending of the torso; in i) the leg position is indicated more exactly.

Zorn - Bending the Legs



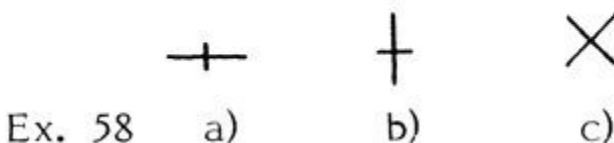
Zorn - Bending the Arms and Body



Benesh: Bending

Bending the limbs is shown in Benesh notation by the change from a more extended limb to the new placement of extremity and mid-joint which has resulted from contracting or folding. The spatial placement of extremity and mid-joint indicates the degree of bend that has resulted. As explained on page 44, particular location of the mid-joint. For the 'level' plane, 38a is used; a placement forward of that plane is shown by b), while c) indicates behind that plane. It was not found practical to modify the black dot for backward placement and so an 'x' was used.

Benesh - Indication of Mid-joint



Benesh - Bending the Limbs

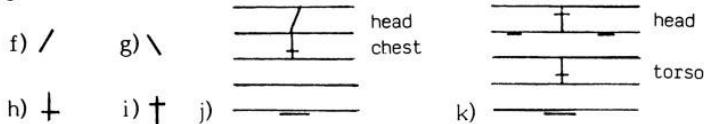


Ex. 58d begins with the feet apart, arms out sideward at the height of the top of the head. The arms pull in (contract) so that the elbows are in line with the waist and the hands in line with the shoulders, producing a 'V' shape with each arm. At the same time the legs bend producing a 2nd position plié. In 58e limb placement is in the sagittal plane and only folding of the mid-joint occurs. The right leg starts forward at hip height, the knee then bends bringing the foot down to knee height. At the same time the arms which started forward from the shoulder, bend at the elbows so that the lower arms are crossed. The vertical lines for the arm extremities are written with a slash (/) through them to indicate that they have crossed the center line and are not on their own right and left sides (i.e. they are 'crossed out').

Ex. 58f shows tilting to the right; for a tilt to the left the line slants to the left, g). Bending the head forward is shown as in h), the idea being that the nose (the center) is lowered. Bending backward is written as i), the nose being raised. The same signs are used for bending the upper torso, the signs being placed in the space above the waist line. Ex. 58j shows the upper torso bending forward from the waist while the head tilts to the right. For tilts of the whole torso the appropriate sign is placed in the space above the knee line to show hingeing at the hip joint. In k) the torso tilts forward while the head tilts backward, the arms being out to the side.

Benesh - Bending the Head and Body

Ex. 58

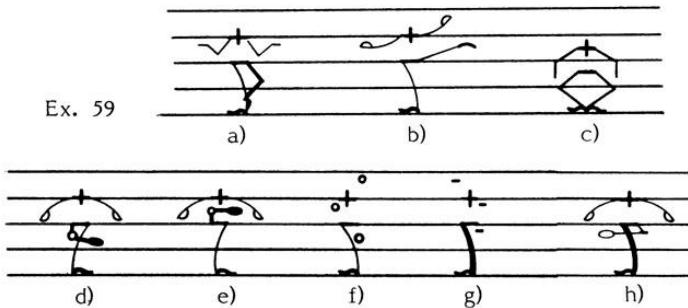


Sutton: Bending

Where perspective allows, bent limbs are shown by the figure drawings, as in Exs. 59a - c). To overcome perspective problems a knee or elbow projected toward the audience is shown by a white circle connected with lines to the hip or shoulder joint, as in Exs. d) and e). A slightly bent (relaxed) limb toward the audience is shown by a white circle not connected to the hip or shoulder, f). Relaxed or rounded limbs projected toward the back wall are shown by short horizontal strokes which are not connected to hip or shoulder, Ex. g). When this stroke is connected with a line to hip or shoulder, it represents the knee or elbow projected toward the back wall, Ex. h). Note that a limb closer to the audience is drawn more thickly.

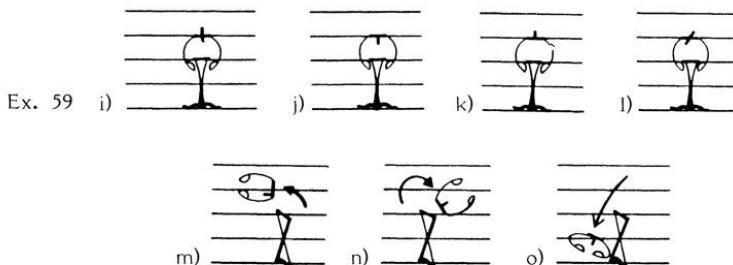
Sutton - Bending the Limbs

Ex. 59



A vertical center tick on the shoulder line represents the head in its normal position, Ex. 59i. When this tick is lowered, j), the head is bending forward; an upward tick, k), shows bending backward, and a slanted stroke, l), states sideward bending, in this case to the left. Body bends are written by showing displacement of the shoulder line. Ex. 59m shows the chest bending to the right side; n) is bending backward and o) is bending the torso forward. Note: use of arrows to make the movement clearer.

Sutton - Bending the Head and Body



Stick Figure (Visual) Systems: Rotating

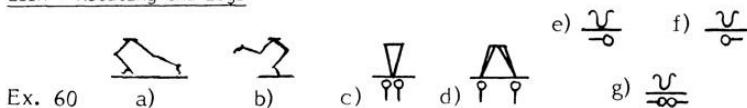
Rotations (twists) of the limbs and torso are dealt with here; turns of the whole body are given later.

Saint-Leon, Zorn: Rotating

Because Saint-Léon dealt with classical steps, no departure from the understood outward rotation of the legs was given. His head and body rotations are similar to Zorn's.

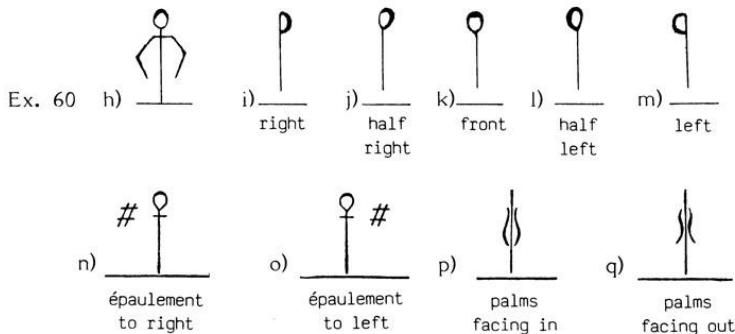
Zorn showed rotated positions of the legs pictorially by the figure drawing itself as in 60a and b), or by white pins placed below the base line when perspective demands. In 60c the feet are together parallel; in d) they are apart but parallel. The basic movement of rotating is shown by a curved letter ‘V’; whether the leg is turned inward or outward is indicated by the resulting position. A white pin denotes which foot (leg) is rotating; Ex. 60e shows the right leg turned out, f) the left leg and g) both legs turned out.

Zorn - Rotating the Legs



Rotating the head is shown by shading the white circle representing the head. Ex. 60h shows the head facing front: in i) the head is facing right, the flat side being the face; in j) it faces half-right. Epaulement (rotation of the upper spine and shoulders) is shown by a ‘sharp’ sign, Ex. 60n being to the right, o) to the left. The same device is also used by Saint-Léon. Little is stated about rotation of the arms; the sign for rotation is used followed by indication of the terminating position. Ex. p) indicates the palms facing in towards the legs while q) shows the palms facing out, away from the legs.

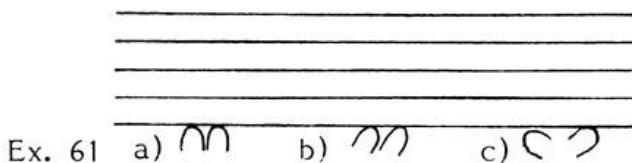
Zorn - Rotating the Head, Body and Arms



Benesh: Rotating

Rotation of the legs (foot in line with knee) can be shown pictorially as though the feet are wearing shoes, just the toe caps being drawn. Ex. 61a shows feet together, parallel; in b) they are also parallel but rotated to the right; in c) they are turned out 45 degrees.

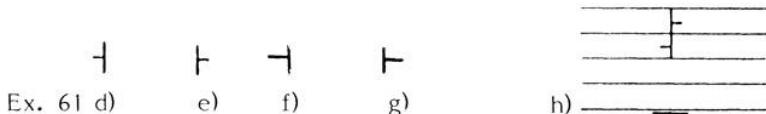
Benesh - Rotating the Legs



To show rotation of head and parts of the torso, a horizontal tick is added to the vertical line which represents the neutral situation. Ex. 61d states rotation to the left, e) to the right. A greater degree of rotation is shown by a longer horizontal

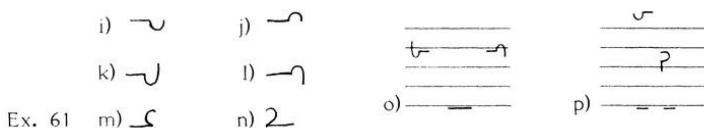
stroke, f) and g). In h) the head is shown as being rotated to the right while the upper torso is rotated to the left.

Benesh – Rotating the Head and Body



The result of an arm rotation is shown by addition to the location sign of a ‘cup-like’ symbol showing where the inside of the lower arm (wrist) is facing. Ex. 61 i states facing forward, j) facing backward. Elongating the end of the ‘cup’ signifies facing up, 61k, or down, 1). Facing right and left are shown by m) and n). Ex. o) shows both arms sideward, the left wrist facing up, the right down. In p) the left arm is above the head, wrist facing forward; the right arm is forward at waist height, wrist facing left.

Benesh – Rotating the Arms

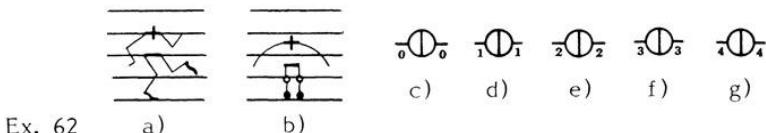


Sutton: Rotating

When limbs are bent the figure drawing indicates state of rotation, Ex. 62a. Indication that feet and knees are toward the reader is shown by a dark circle for feet (•), a light circle for knees (○). The rotated state of the legs is clearly shown through addition of numbers to the ‘position symbols’ placed under the staff. Ex. c) shows both legs turned out 90°,

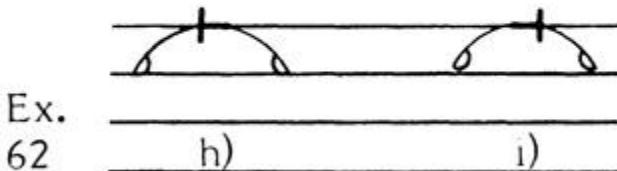
signified by the zero. A number 1 denotes 45° turn-out, 2 indicates parallel, 3 turned in halfway, and 4 fully turned in.

Sutton - Rotating the Legs



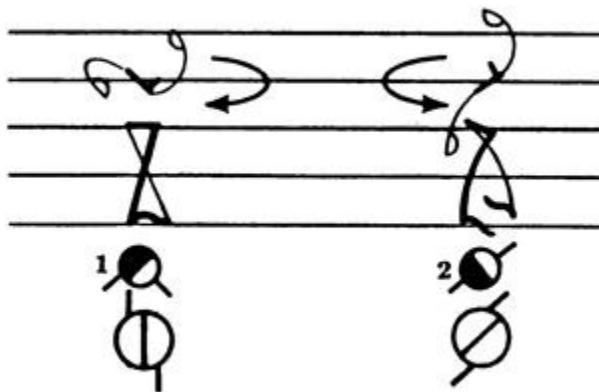
For head rotations the small vertical tick for the head (normally centered on the shoulder line) is moved to one side or the other. Ex. 62h shows 1/4 turn of the head to the right; 62i shows 1/4 turn to the left.

Sutton - Rotating the Head



Twisting the upper body is shown by turning the shoulder line, as in 62j, an arrow being added to clarify the movement. Note also the use of the smaller position symbol under the staff which indicates the change of front for the shoulder line. In 62k the twist is to the left, as shown by both the arrow and the position symbol written beneath the staff.

Sutton - Rotating the Body



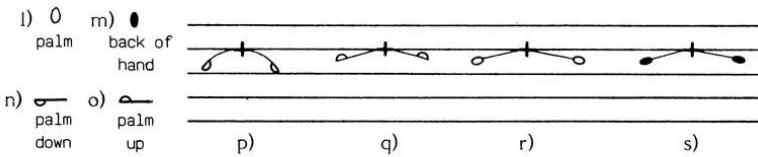
Ex. 62

j)

k)

Arm rotations are shown by indicating where the palm faces. An oval symbol is used for the hand. A white oval, Ex. 1), represents the palm surface, a black oval, m), the back of the hand. When a half oval representing the hand is drawn at the end of the arm line and is below that line, the palm is facing down, n); when it is above the arm line the palm is facing up, Ex. o). Ex. p) shows palms down, q) palms up. In 62r palms are facing the reader, i.e. forward; in s) they are facing backward, away from the reader.

Sutton - Rotating the Arms



Ex. 62

Stick Figure (Visual) Systems: Positions of the Feet

How the standard ballet positions of the feet are indicated provides a good comparison. Also included here are feet together with knees bent (demi-plié) and standing on half toe (a rise or relevé).

Saint-Leon, Zorn: Positions of the Feet

Saint-Léon uses a stylized representation of the legs for positions of the feet and indicates the intended position by use of the appropriate number. A dot is added to show which foot is behind. In Ex. 63a the right foot is in front for 3rd, 4th and 5th positions. A demi-plié is shown pictorially, b), and a rise (relevé) by the addition of the small wedges showing weight on the balls of the feet, c).

Zorn's indications for positions of the feet are more pictorial, as in 63d. The dot for the foot behind is used as in the Saint-Léon system; 63e and f) show the demi-plié and the relevé.

Saint-Léon - Positions of the FeetPlié, Relevé

Ex.

Zorn - Positions of the FeetPlié, Relevé

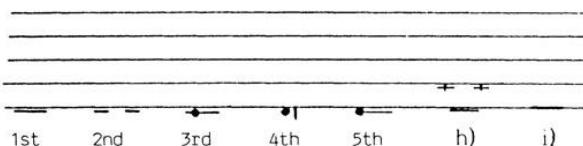
Ex.

**Benesh: Positions of the Feet**

In Benesh notation a longer horizontal line below the staff shows the feet to be together, i.e. 1st position, 63g. In 2nd position they are shown to be apart. In 3rd position the left foot is shown to be partially behind the right, placement of the black dot for behind stating this relationship. The right foot is forward and the left foot backward for 4th position, and for 5th the left foot is shown to be completely behind the right. In writing 3rd or 5th position it is the foot which is behind that is stated. For the demi-plié in 1st, Ex. 63h, the knees are shown to be bent and out to the sides, lower than normal knee height. Supporting on half-toe, 63i, is shown by the sign being placed through the bottom line of the staff. Note: placement of the sign on top of the bottom line means supporting on pointe.

Benesh - Positions of the FeetPlié, RelevéEx.
63

g)



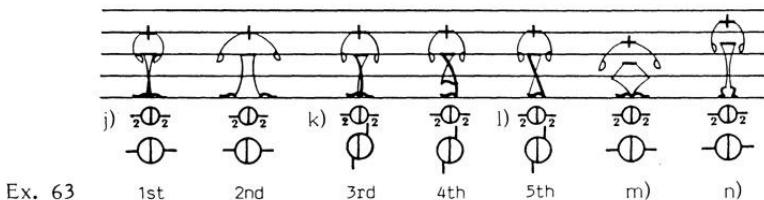
Sutton: Positions of the Feet

In the Sutton system, positions of the feet are pictorial, much as they are in the Zorn notation system. However, in writing 3rd, 4th and 5th positions the leg which is in front is drawn more heavily and symbols are added below the staff to state clearly which foot is in front. In 63k and 1) the right foot is shown to be in front. Demiplié and relevé are quite pictorial, 63m and n). The

indication:  states the outward leg rotation.

Sutton - Positions of the Feet

Plié, Relevé



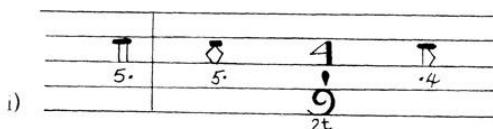
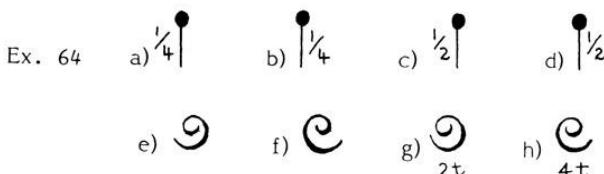
Stick Figure (Visual) Systems: Turning, Pirouette

Saint-Leon: Turning, Pirouette

Partial turns for Saint-Léon were written by placing the appropriate fraction next to the body/head sign. Ex. 64a shows a 1/4 turn to the right, b) 1/4 to the left, c) 1/2 right and so on. A full turn to the right is written as in e), to the left as in f). The appropriate number for multiple turns is placed below the turn sign, the 't' standing for 'tours'. Ex. g) shows

two turns to the right, h) four turns to the left. Ex. 64i illustrates a double pirouette en dehors on the left foot, starting in 5th, right foot front, with a demi-plié preparation and ending in 4th with the right foot back and the front leg bent.

Saint-Léon - Turning, Pirouette



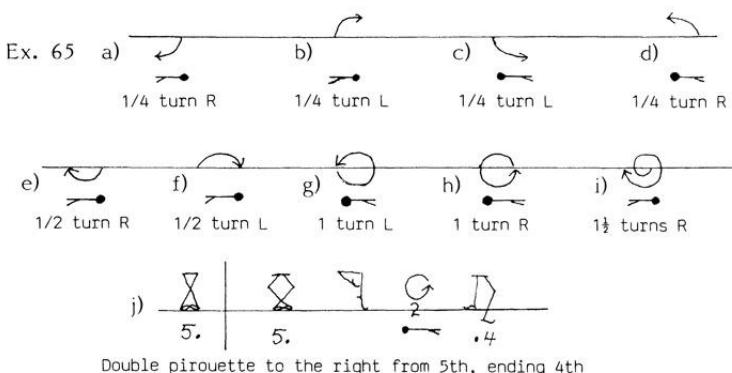
Double pirouette from 5th, ending in 4th, right foot back, left leg bent.

Zorn: Turning, Pirouette

Zorn's indications for turning provide an element of confusion. His signs are an arrow at the end of a curved or circular line attached to the base line. Below the turning indication a black pin indicates on which foot the weight is placed. Ex. 65a shows 1/4 turn right on the right foot; b) 1/4 turn left on the right foot. As can be seen, in 65b the arrow is also curved clockwise, as it also is in 65a, thus it appears that the starting point of the curve below or above the line has significance regarding the direction of the turn. In 65c the turn is to the left (anticlockwise) on the left foot, while d) is also on the left foot but turning 1/4 clockwise, i.e. to the right. The same visual confusion regarding turning direction applies

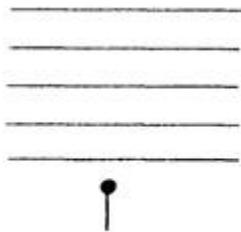
to 1/2 turns. Ex. 65e is a 1/2 turn right on the right foot and f) a 1/2 turn left on the right foot. Ex. g) states a full turn left on the left foot, while h) is a full turn right on the left foot. One and a half turns right is shown in 65i, weight being on the right foot. Ex. 65j illustrates the pirouette sequence written in Saint-Leon's notation - a double dehors from 5th, right foot front, and ending 4th, right foot back with the front leg bent.

Zorn - Turning, Pirouette



Benesh: Turning, Pirouette

In Benesh notation a black pin placed below the staff indicates the direction in the room the performer is facing. The head of the pin indicates the direction, thus 66a means facing the audience. Signs for turning the whole body, based on this pin, indicate the starting direction, the turning direction and the new direction faced. In the examples overleaf the starting front is in each case the audience.



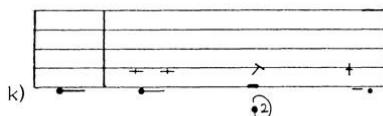
Ex. 66a

Benesh - Turning, Pirouette

b) ↗ c) ↘ d) ↛ e) ↜

f) ⌂ g) ⌃ h) ⌄

Ex. 66 i) ⌁ j) ⌂



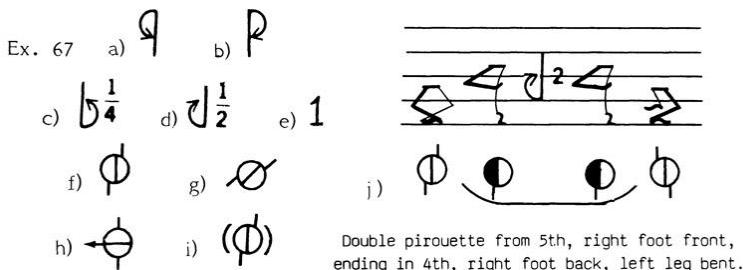
Ex. 66b shows 1/S turn to the right; c) 1/8 turn to the left; Ex. d) shows 1/4 right; e) 1/4 left. The 1/2 turn right of f) shows the performer ending facing the back of the room, as does the 1/2 turn left of g). Ex. h) is a full turn right (clockwise), and i) is a full turn left (anticlockwise). The number for multiple turns is written within the turn circle; j) shows four turns to the right. Ex. k) is the notation for the pirouette sequence already established. During the turn the right leg is in the retiré position.

Sutton: Turning, Pirouette

Sutton uses a sign like a letter 'P' with an arrow to indicate turning. The 'P' sign is upside-down when the dancer is facing the reader and the pirouette is en dehors. It is drawn at an angle when he/she is facing a corner. A few examples are given here of the variations in writing the turn sign. The

reverse 'P' of 67a shows a pirouette en dedans turning left while b) is en dedans to the right. Ex. c) shows 1/4 turn left, while d) is 1/2 turn right. A full turn, 67e, is written with the numeral 1. In addition to these signs (which are placed within the five-line staff) Sutton adds position symbols below the staff to make clear where the performer is facing. Ex. 67f shows facing front (the audience); g) states facing the downstage right corner; h) facing stage right; i) facing upstage (the back) and so on. The already familiar pirouette sequence, 67j, uses a number 2 to show the double turn.

Sutton - Turning, Pirouette



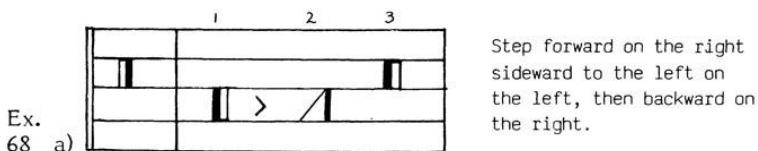
Stick Figure (Visual) Systems: Walking, Jumping

Saint-Leon: Walking

Ex. 68a shows a walking sequence in the Saint-Léon system. Starting with the right foot forward touching the ground, a step forward on the right foot is shown by placing the new support on a line lower, i.e. closer to the audience. At the end of this step the left leg is backward touching the ground. Several systems find the need to show the free leg before and

after a step. Stepping to the left on count 2 is shown by a sideward-pointing caret next to the indication of the new support, on the left leg, the right leg ending touching the ground to the right side. On count 3 the backward step is shown by the supporting leg being written on the line above (i.e. away from the audience).

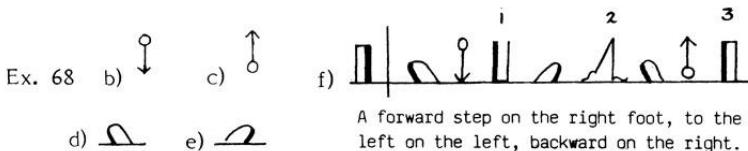
Saint-Léon - Walking Sequence



Zorn: Walking

Before examining Zorn's notation of the above walking sequence the reader will need to know the following signs: Ex. 68b indicates traveling forward (toward the reader), c) shows traveling backward. Ex. 68d is the sign for transference of weight to the right foot, e) transference to the left. In the starting position of Ex. f) weight is on the left foot, the right foot forward touching the ground. Forward traveling, soon to take place, is indicated ahead of time. Transference of weight to the right is followed on count 1 by the position with weight on the right foot, the left foot touching backward. Transference of weight to the left leads to support on the left leg with the right touching to the side on count 2. Weight transference to the right and indication of traveling backward lead to the position on count 3 with weight on the right foot, the left pointing forward.

Zorn - Walking Sequence



Benesh: Walking

To show walking Benesh uses a curved ‘step line’ which also indicates the height of the transitory leg gesture. Where the line starts and ends shows which foot is used. Often this is obvious, but after a starting position it needs to be made clear, therefore in 68g the line starts from the right side of the indication for feet together. To show a forward step the vertical stroke for forward is added to the line. If this is an ending step, the left foot would probably be shown touching the floor behind, as in 68h. In a sequence this is not usually relevant. A step to the left on the left foot is shown by where the line starts, i), and ends, j). Ex. k) shows a step backward on the right foot, the backward direction being indicated by the black dot on the step line. Ex. 681 gives the already established walking pattern - forward on the right foot, sideward on the left and backward on the right.

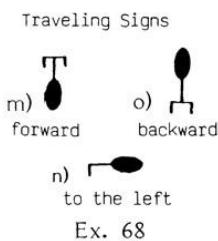
Benesh - Walking Sequence



Sutton: Walking

Ex. 68p shows the walking pattern in Sutton notation. Traveling symbols are placed on the staff between the figure illustrations. These signs, shaped like lozenges, or half-lozenges, with tails indicate direction of travel. In Ex. m) the performer is facing forward and traveling forward: n) shows traveling side left while facing front and o) shows backward traveling facing front. Indications placed on the bottom line of the staff clarify on which foot the step occurs, a black circle for the right foot, a white circle for the left. A short vertical line next to these circles indicates a straight leg. Thus 68p states the right leg stepping forward, the left to the side and the right stepping backward.

Sutton - Walking Sequence

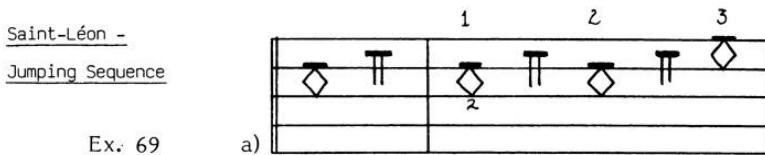


Basic Sutton notation of walking without indication of leg turn out or additional position and orientation signs

Saint-Leon: Jumping

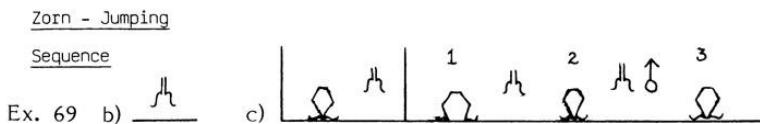
The jumping sequence, illustrated below, is as follows: from a 1st position plie spring into 2nd position, spring again into 1st, then jump backward landing feet together. Saint-Léon, Ex. 69a, shows backward traveling by writing the landing sign on the next line up on the staff. Note use of the number 2 sign.

to indicate 2nd position; when no number is given 1st position is assumed.



Zorn: Jumping

In Zorn's system the jumping sequence, 69c, is quite pictorial. The movement indication for rising into the air, 69b, being shown between the supports. The arrowed white pin shows traveling backward.



Benesh: Jumping

Springing into the air is shown in Benesh notation by a 'jump line', a downward curved bow connecting the start and finish of the jump, 69d. Jumping backward is shown by adding the black dot to the bow. For jumps Benesh (and some other systems) assume that knee bending takes place; here bending is being stated for all the systems presented.

Benesh - Jumping

Sequence

Ex. 69 d)

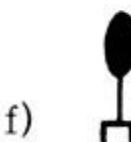


Sutton: Jumping

In Sutton's system the jumping sequence, 69g, given on the next page, is pictorial, the figure itself rising into the air. However, the specific sign for jumping, 69e, is added, as is the sign for traveling backward, 69f, in this case on both feet shown by two prongs on the stem. The round position symbols usually given under each figure have been omitted in this sequence.

Ex.

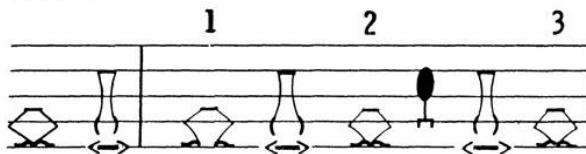
69 e) \longleftrightarrow



f)

Sutton - Jumping Sequence

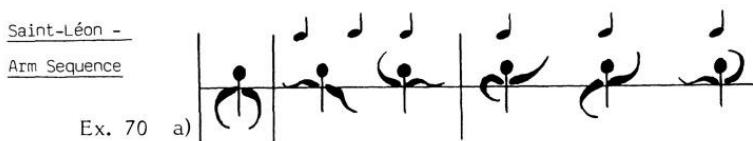
Ex. 69 g)



Stick Figure (Visual) Systems: Arm Movements

Saint-Leon: Arm Movements

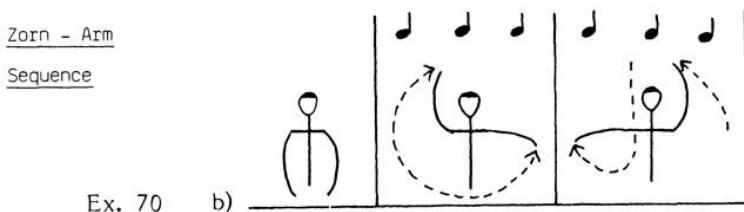
Saint-Léon's book dealt with the familiar balletic positions of the arms; ports de bras as such were not covered. One must therefore assume that arm patterns would be 'spelled out' through the appropriate sequence of the established arm positions. The arm pattern illustrated here starts with the arms down, Ex. 70a. During the first three beats the right arm rises via side horizontal to straight up above the shoulder, at the same time the left arm moves more slowly arriving only to side horizontal. In the next measure the left arm continues moving up taking three counts to arrive above the shoulder, while during the same three counts the right arm travels forward, down and then out to side horizontal. The right arm has thus traveled further and more swiftly than the left. For reading, right and left sides have to be reversed.



Zorn: Arm Movements

In Zorn notation the head, shoulders and central line of the spine are drawn in. The arm movements are quite pictorial. Use of dotted lines makes the paths easier to see, but of

course, as with Saint-Léon, right and left sides have visually to be reversed.



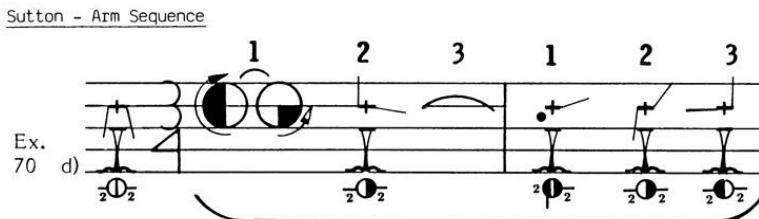
Benesh: Arm Movements

In Benesh notation right and left sides are visually correctly placed. The figure itself is understood and is not drawn. In Ex. 70c the arms start down, at the sides of the body. The lateral paths of the arms are quite easy to see in the first measure. In the second measure the forward path of the right arm (its passing through the sagittal dimension) is shown by the horizontal tick across the movement line. Although a vertical stroke is basically the sign for a situation forward of the lateral plane, a tick which is at right angles to the path (the line) of a movement means 'via forward'. The right arm lowers to the side of the body (where it started) before rising sideward to the right. The ends of the movement lines show the left arm finishing up above the shoulder, the right arm out to the side at shoulder height.



Sutton: Arm Movements

As can be seen in Ex. 70d, Sutton's notation of this arm sequence is very similar to that of Zorn, both viewing the movement as from the audience. Arrows are used to indicate the paths of the arms and position symbols. The smaller circles, placed under the figure to clarify the drawing, are usually included when there is doubt as to level, distance etc., as shown here.



Stick Figure (Visual) Systems: Advantages

The advantage of the immediate message given by a figure drawing, even if reduced to a stick figure, is obvious. Apart from the systems evolved on this basic idea, figure drawings have been a memory-aid device used by countless people wishing to jot down key moments in movement sequences. The reader receives an impression of the desired position, and, through arrows connecting a series of positions some idea of the movement continuity. The more representational the figure, the more immediately understood it is; the more abstract, the more study is required. Zorn is easy to read, it has comparatively few additional signs.

Saint-Léon used stylized leg indications. Sutton's figures are as pictorial as possible, the figure being turned when the performer turns. The Benesh system, as we have seen, belongs to the 'visual' representational category but is rare in that the figure itself is not drawn, the movement indications given are, however, as pictorial as possible. It has, because of its abstraction, much less in common with stick figure systems and is therefore discussed separately on pages 66 – 68.

Stick Figure (Visual) Systems: Disadvantages

Visual systems would seem to obviate the need for signs but in fact only a limited amount of movement (in contrast to positions) can be represented pictorially. The first need is to show the third dimension, missing on two-dimensional paper.

To cope with this missing dimension, in most instances, additional indications are given. In some systems, such as Jay (U.S.A., 1937) and Arndt (Germany, 1931) which have not been investigated here, the figure is drawn in profile and a note made to state that no turn has, in fact, taken place - the profile view is merely for clarification. In Zorn's system the figure is not turned but additional indications are given to clarify the drawing. Benesh and Sutton both use minor symbols to indicate positions in the third dimension.

It is interesting to see how many stick figure systems have chosen to give the audience view of the dancer. This choice results in the need to switch right and left sides, a minor annoyance, yet a disadvantage when the performers are the readers.

Visual systems are based on the idea that all dance is visual, that movements are designed to ‘make pictures’. This may have been true of classical ballet with its vocabulary of selected, clearly defined positions, but not all movement has ‘picture-making’ as its purpose, and to try to describe such action in those terms is to force movement into a straight-jacket and thereby change its nature. We face the problem of a notation system suited to one type of movement being applied to other types and thereby distorting the description of them.

Not all movement can be indicated through arrows linking one position to another, ancillary indications - letters, numbers or cyphers - must be added to clarify what is drawn and add details that cannot be visually represented. As the number of such indications increases, the system becomes less a visual representation and more a symbolic one. For stick figure drawings subtleties of timing are not easily indicated. Drawing the figures can become tedious; Zorn resorted to a number of abbreviations for many of the fully ‘spelled out’ movement words while Sutton provides a shorthand form for personal notes.

Timing indications in stick figure systems are usually chordic, being focussed on destinations. As a simple example, take variations in the timing of a step-gesture. A leg gesture can only occur exactly at the same time as a change of weight when the weight has been lifted from the previously supporting leg as in an *élançé* or *coupé*. In such movements one leg can start gesturing at exactly the same moment that the weight is taken onto the other foot. In a true step-gesture, the gesture can only begin as soon as enough weight has been taken over by the stepping foot. Lastly, the gesture can

happen after the transference of weight has been completed, no overlap occurring at all. The subtle interrelation in timing of a step-gesture and, indeed, specific variations in the overlapping timing of movements for many different parts of the body do not exist in most systems of notation; the majority give a general description only. In Saint-Léon's notation one sees a crude description of a glissade; however, a ballet-trained dancer will guess what is meant and know how it should be performed.

To return to general timing: translating stick figure notations back into movement would appear to be a simple matter, but, even though the pictures are drawn directly beneath the music notes, in translating Zorn's Cachucha notation, for example, it was found that when the steps were reproduced exactly as stated, they did not physically fit comfortably with the music. It was an effort to force the body to adhere to what was written; the body fell naturally into a slightly different timing. Was this an error of the notator? How experienced was he? How precise did he try to be? Too often not enough detail was given, particularly in transitions from one movement to another (a fault common to many notation systems) or perhaps one should say to many notators who concentrated only on the main actions. This lack of detail may have been due to laziness or to the fact that transitions cannot easily be described in such systems. When translating any notation back into movement, the reader often wonders about the reliability of the original notator. In transcribing the Cachucha score, the conclusion reached was that the notator was not experienced, that he was not accustomed to the process of recording movement, and particularly that he was not familiar with having other people read his work and therefore not aware of what the reader needs to know. We have no record

that the Zorn system was widely used, and the lack of published materials in the system suggests that it had little general application. This is also true of Saint-Léon's system.

The Sutton system, while providing templates with which to draw the figures, contains many rules regarding how to draw them in such a way to achieve clear perspective. There are eighteen rules on when normally extended legs should be drawn with straight lines and when with curved which suggest a hyperextended, sabre-like state. Sutton points out that, while great care is taken in writing scores for publication, in general practice a more cursory drawing of the figure is used. The question is: Will such abbreviations be understandable to others?

Benesh: Advantages

Because the Benesh system has been used professionally in recording a variety of dance styles for many years, it, together with the Laban system, can be given more detailed evaluation. How they function in actual use, both in the recording process and the reading back, is another study which cannot be dealt with fully here but some general points will be considered.

The Benesh abstraction of the figure whereby movement indications and positions are marked without having to draw the figure itself, the economy achieved by redundancy avoidance and, in particular, the establishment of 'languages' through which an automatic understanding of details in performance can be presumed on the part of the reader and therefore need not be written, makes the resulting notation

significantly simpler. The system itself allows for greater indication of detail, but, in practice, assumed knowledge on the part of the reader makes it possible to use 'short forms' of known movement patterns and thus to keep scores less 'cluttered', i.e. free of additional details.

The signs devised by Benesh are simple and cursory. Benesh views the figure from behind, thus right and left sides of the body are correctly placed from the reader's point of view. Perspective problems are minimized since the 'figure' is not turned; the different directions faced in the room are indicated by additional signs under the staff.

Constant use of the system by notators working in different styles of dance as well as application of the system to other fields, in particular clinical observations, and the resulting demands made on it to cope with particular needs, has resulted in a higher development than most of the other systems investigated here.

Over a period of time, demands by companies and choreographers can affect the development of a particular system and the scores produced. What is being demanded of the system? Who will read the score? What will the person's background knowledge of movement be? in the years of professional use of the Benesh system with dance companies, a pattern of operating has emerged, notating conditions which provide a yardstick in measuring to what extent such situations affect the work of a notator, the way in which the work is recorded, the level of the notation and the resulting use of the notated score.

Practical measures in the rehearsal schedule of professional companies demand for the resident notator a work program which too often does not allow for the recording of fine details, a luxury which must be foregone since other rehearsals are taking place at which the choreography must be notated. Such pressure results in framework scores, scores which can only be read by those familiar with the ballet, or, at times, only by the notator him- or herself. It can thus be seen that an incomplete score may be the result of lack of access to the movement or simply lack of time.

Use of Benesh notation by so many dance companies has resulted in a library of scores by a variety of choreographers. The legal rights of the choreographer are carefully protected; scores are held in safekeeping and made available only with the permission of the choreographer.

To conclude, visual representation is to many people “what dance should look like”. It is preferred by those who cannot identify with abstract symbols and who are less interested in the fundamental properties of movement than in the image created. Pictorial representation of some kind will always be the instinctive preference for some people. Though the Benesh system is not as obviously representational in visually showing the moving figure as the Sutton, for example, it still has a visual basis which appeals to many.

Benesh: Disadvantages

Despite statements by Benesh in the original textbooks that the system was devised to record all movement, the experiences of the first groups of students indicated that its

initial focus and point of view in looking at movement was ballet-based. Over the years this limitation has been much modified.

While Benesh declared the five-line staff representing the body to be scientifically and ergonomically perfect, anatomically six or even seven lines would be more appropriate. The absence of a line for the hips results in writing adjustments that, if not known by the reader, appear to defy movement logic. For example, a tilt of the whole torso which hinges at the hip joints is written on the knee line, as though such bending occurred at the knee. To indicate sitting on the hips the symbol for supporting is attached to the waist line. In studying the system one meets other instances where such graphic conventions are used. However, as in learning to spell English, Benesh notators adjust to such inconsistencies in the system.

Because recording movement is based on the visual impression*, the system lacks a basic movement analysis; a limited choice of modes of description exist to serve intent and motivation for a range of movements. The Benesh system has focussed on recording structured forms of dance and copes with specific movements in context; it does not provide indication of movement elements and movement ideas out of context nor can it indicate general statements of movement concepts now needed in movement education as well as by choreographers, relying instead on simple word notes to express these.

Benesh notation has often been likened to a shorthand and, bearing in mind that office shorthand contains all that needs to be stated for those who are informed, it is such a system.

The careful, detailed wording required in legal documents to make the intent totally unambiguous results in sacrificing brevity. When such verbiage is not needed, documents can be kept simple. Such is the case in most Benesh scores: all that needs to be stated for future reference can only be discovered when the score is read by those unfamiliar with the movement. Reports over the years of difficulties in reading Benesh scores

point to lack of clarity and sufficient detail, deficiencies which doubtless stem from the inbuilt emphasis on keeping the score simple together with the fact that most scores are written for 'in-house' use, the notator being also the rehearsal director or ballet mistress.

Chapter Four

Music Note Systems

Because dance and music have the element of time in common, it was inevitable that someone would base a system of dance notation on music notation, the common element of duration being indicated by the same signs. Thus the next chronological development was a system in which music notes were adapted and placed on a modified staff to fill the needs of dance. The idea has been tried several times.

Stepanov System

The first music note system was evolved by Vladimir Stepanov and published in 1892, the book being entitled *L'Alphabet des mouvements du corps humain*.

ALPHABET
DES
MOUVEMENTS DU CORPS HUMAIN

Essai d'enregistrement des mouvements
du corps humain au moyen des
signes musicaux.

PAR

W. J. STÉPANOW

LIBRAIRIE DES THÉATRES IMPÉRIALE DE SAINT-PÉTROPOULIS

PARIS

IMPRIMERIE M. FUCHER-MANN PARIS, 98, RUE SAINT-ANTOINE, 9^e.

1892

Ex. 71

As the title of his book suggests, Stepanov's approach to writing movement was from an anatomical angle. Movement was analyzed in terms of the joints of the body and the movements of which each was capable. Basic direction,

flexion, extension, rotation, abduction and adduction were featured.

Stepanov, a dancer at the Maryinsky Theatre in St. Petersburg, undertook a course in anatomy and obtained a grant to continue his studies in Paris where his system of movement notation was published in French. The system was examined by the authorities at the St. Petersburg School, adopted, and during a number of years was taught at the school. Stepanov, who was given the title of Instructor in Movement Analysis and Notation, died at the age of 29. Had he lived longer no doubt the system would have been more highly developed.



Ex. 72 Vladimir Ivanovich Stepanov

Stepanov's colleague, Alexander Gorsky, took over responsibility for the system, developing it slightly and printing in Russian Table of Signs in Stepanov Notation, Ex. 73 below.

ТАБЛИЦА ЗНАКОВЪ

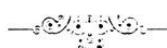
для

ЗАПИСЫВАНИЯ ДВИЖЕНИЙ ЧЕЛОВЪЧЕСКАГО ТѢЛА

ПО СИСТЕМЪ

Артиста ИМПЕРАТОРСКИХЪ С.-Петербургскихъ Театровъ.

В. И. СТЕПАНОВА.



Виды Императорского С.-Петербургского Театра.

Ex. 73

A number of ballets in the Maryinsky repertoire were recorded in this system. Ex. 74a shows an excerpt from the Prince's variation in Act III of The Sleeping Beauty.

Музыкальная вариация

Со С. Гарсия.

из 3^{го} спектакля балета.

„Лебединое озеро.“

148. *Tempo di valse.*

Mus. P. Чайковского.

A

B

C

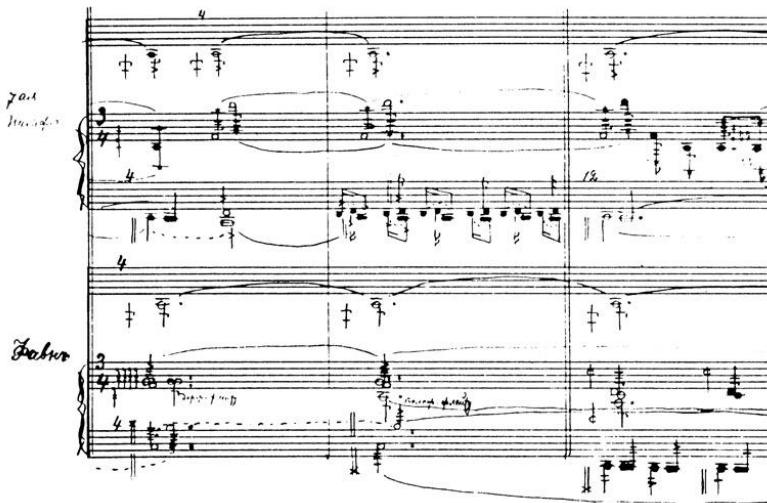
D

E

Ex. 74a

Our interest in the system today revolves mainly around the thirty or so scores which the régisseur, Nicolai Sergueyev, brought with him on leaving Russia. From among these he revived several full-length ballets for companies such as Sadler's Wells (now the Royal Ballet) and the International Ballet. These scores are now in the Harvard Library Theatre Collection in Cambridge, Massachusetts. Some of the manuscripts are neat copies in which the ballet steps are carefully 'spelled out'. In others we find only memory-aids, rough notes, often only floor plans with Russian words written alongside. After the widespread use of Feuillet's notation system, Stepanov's was historically the next which was really functionally employed.

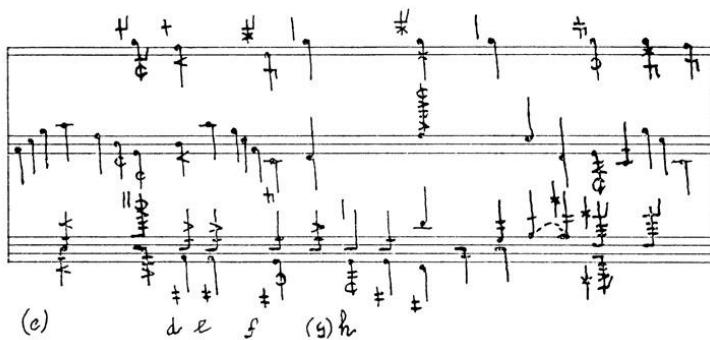
Without question Vaslav Nijinsky based his system on that of Stepanov which he had learned in his students days at the ballet school. His use of the music notes is very similar to Stepanov but he changed the staff to three sets of five lines in the score he wrote of his ballet *L'Après-midi d'un Faune*. Since placement of the notes on the lines and spaces indicates the direction and level, use of a different number of lines provides a different basis for direction. Ex. 74b is an excerpt from the score of *Faune*.



Ex. 74b

Excerpt from Nijinsky's score

Today interest in Stepanov's system has been revived because of its use as a tool for choreographic development by Leonide Massine. With his knowledge of music and having learned this system as a student, Massine felt strongly that the perfect answer for dance was a system based on music notes. As his interest developed in investigating basic movement possibilités (other than the balletic vocabulary) upon which to build choreographic patterns, Massine focussed on Stepanov's method as the best means of recording all these basic movements, Ex. 74c. In teaching choreography he expected students to be able to master the notation well enough to read his movement studies.



Ex. 74c An example of Massine's choreographic studies

Conte System



Ex. 75 Pierre Conté

While the system devised in the 1920s by Antonio Chiesa, an officer in the Italian Military Aviation Corps, used music notes, too little is known about it to warrant inclusion here. The next major system employing music notes was that devised by Pierre Conté, *Ecriture*, first published in 1931, Ex. 76. Conté, an ex-soldier and musician, became interested in the problems of writing movement when he found rhythm was a great help in teaching gymnastics. Unaware at that time that other notation systems existed, he invented his own. Whereas Stepanov's system was basically developed for human movement of any kind (although it was specifically applied to ballet), certain features of the Conté system reveal a ballet influence even though he recorded different forms of dance. Conté was not himself a professional dancer and there is no evidence that his system was used with professional companies. Conté recorded a great number of ballets which he composed for his own company.

Conte's system gained widespread exposure through the film made on the system by Jean Painlevé in which the dance score ran side by side with the dance movement.

EXPRESSION par GESTES

.. et LOCOMOTION ..

Pierre CONTÉ

- EDUCATION PHYSIQUE
- SPORTS — MÉTIERS
- MISE EN SCÈNE — DANSE

ÉCRITURE

ARTS et MOUVEMENT

28, rue d'Assas — PARIS-VI^e

Tous droits réservés pour tous pays

Ex. 76

Below is an excerpt from one of Conte's choreographies.

mus: Manuel de Falla
chor: Pierre Conté

LA VIE BREVE

Mus. Danse X

Rise et Félin très高地 très simple

A (avec accélérations) (la main droite plus haute que la gauche, le coude un peu en avant)

02 ♫ 315° 45° pp:cc progression horizontale veto 2D

crânement

2/4 (avec accélérations) à planter la tête

02 ♫ 45° pp:cc cercle 0 à 360 455°

Mus. Danse X

P dolce gracieux.

02 Danse X

pp au 5me place (fécinez) pp au voto 2D p
acc de cecile voto 2D p 235°

X Danse X

pp au 5me place 52'' 21

pp au 5me place 135° voto 2D p 235°

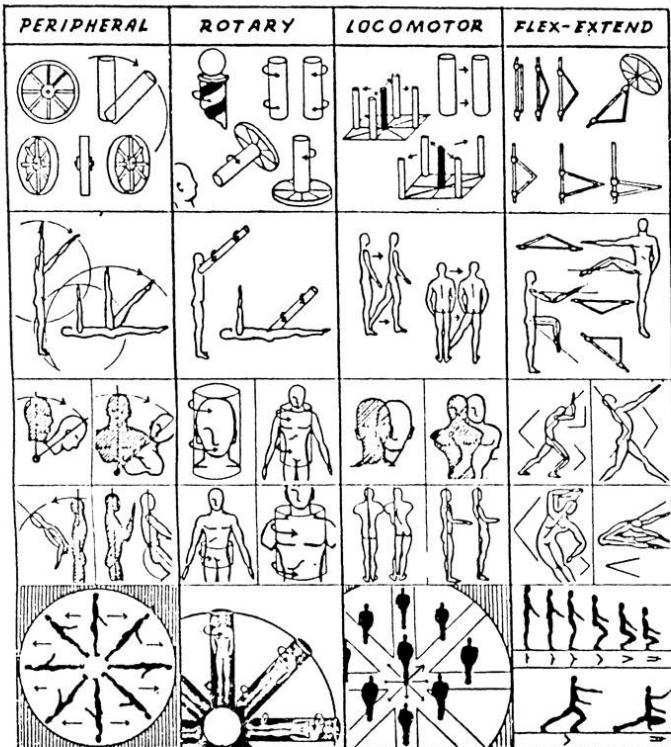
1 petit cercle, en même temps de 360° à 0°

Ex. 77

Nikolaïs System

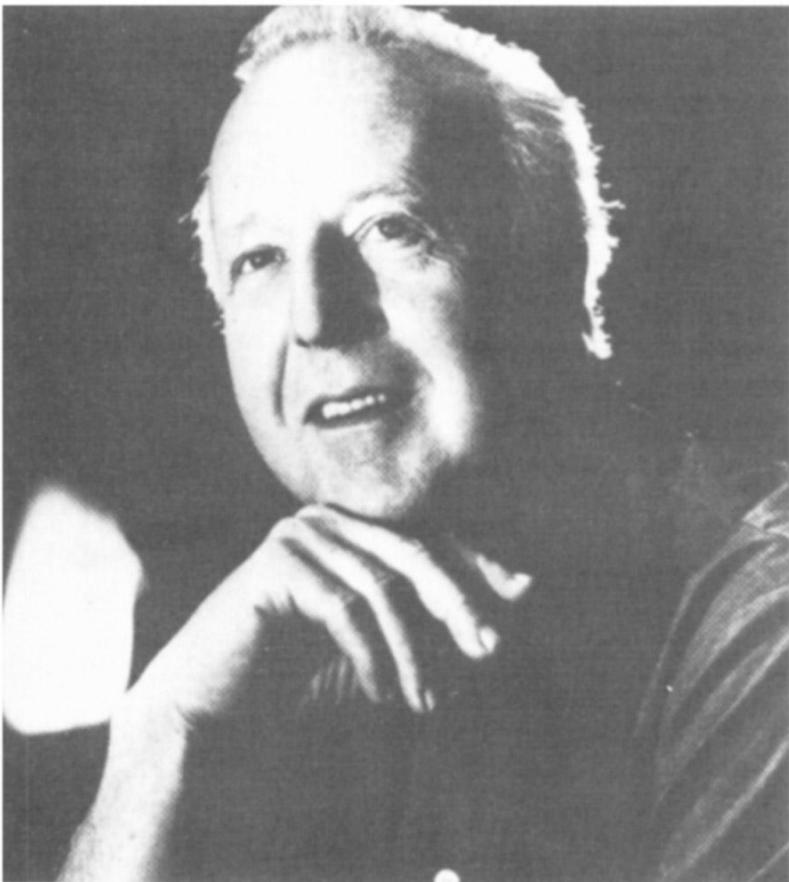
Alwin Nikolaïs' system, called Choroscript, was first taught in 1939 at his studio in Hartford, Connecticut. The system as such was never published, but appeared in magazine articles in the early 1950s.

CHOROSCRIPT • MOVEMENT ANALYSIS AND NOTATION by ALWIN NIKOLAIS



Ex. 78

Alwin Nikolais, a modern dance teacher and choreographer with a strong musical background, became interested in notation after attending lectures on the Laban system in 1937. He decided that as signs music notes were more practical than block symbols. The development of his system coincidentally links closely with that of Laban, particularly in his analysis of movement. For a time Nikolais included use of the system in his school at the Henry Street Playhouse in New York City where he taught technique, formed a company and choreographed works of major importance.

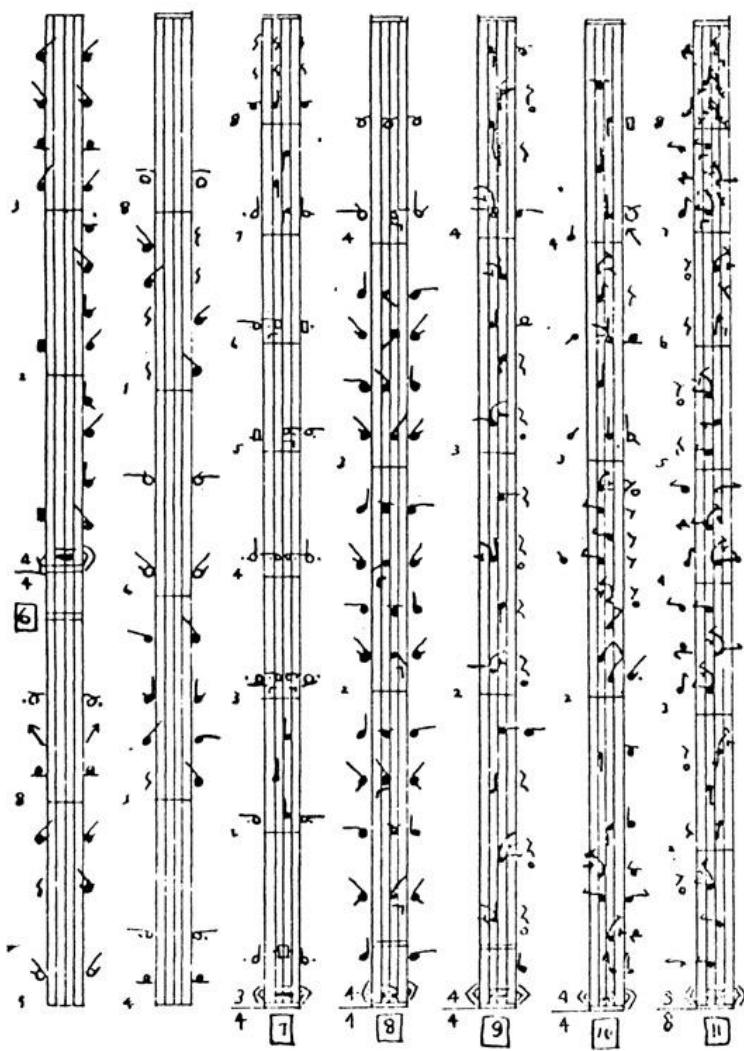


Ex. 79 Alwin Nikolais

In [Ex. 80](#), a study written in the Nikolais system, the vertical staff is read from the bottom up and left to right across the page.

Understandably, as has happened in several instances, Nikolais found himself torn between working on a notation system and building up a school and company and at the same

time developing his choreographic talent. With his specialized gifts it is fortunate for the dance world that he concentrated on teaching and choreography. His notation system suffered as a result and little was done with it outside his immediate circle. His particular adaptation of music notes provides certain advantages not found in other systems in this category, particularly in indicating timing, hence its inclusion here.



Ex. 80 Nikolais Score

Music Note Systems: Indication of Body

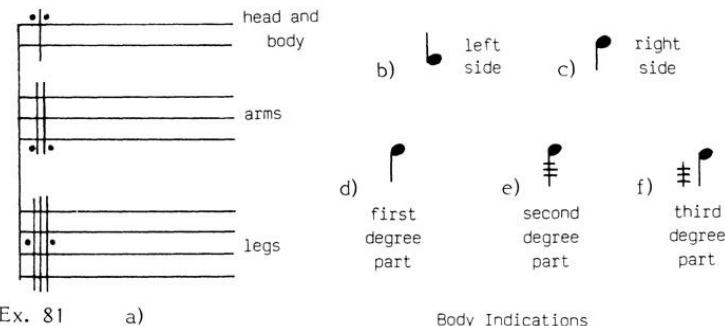
In most systems of notation a staff is used to represent the body and its parts and, predictably, in music note systems the staff is derived directly from the horizontal music staff. But the lines and spaces on the staves are used to show either direction or the specific part of the body which is moving.

Stepanov; Indication of Body

Stepanov divides his nine-line staff into three sections, the top two lines for the head and body, the center three lines for the arms, and the lower four lines for the legs. Left and right sides of the body are

indicated by placement of the stem on the music note, 81b, c). The notes themselves represent movement of the main, or ‘first-degree’, parts of the body, for example, the whole arm moving at the shoulder joint, or the whole leg moving at the hip joint, Ex. d). For ‘second-degree’ parts (the lower arm or lower leg) movement is described as degrees of flexion in the elbow or knee, the degree of flexion being written on the stem of the note, as in Ex. e). For ‘third-degree’ parts (hand or foot) movements are described as flexion or extension of the wrist or ankle and the appropriate signs are placed on a vertical stroke placed to the left of the music note, Ex. f). Parts of the torso are shown in the same way, the whole trunk being the ‘first-degree’ part, the chest the ‘second-degree’ part and the head the ‘third-degree’ part.

Stepanov - Staff; Parts of the Body



Ex. 81

a)

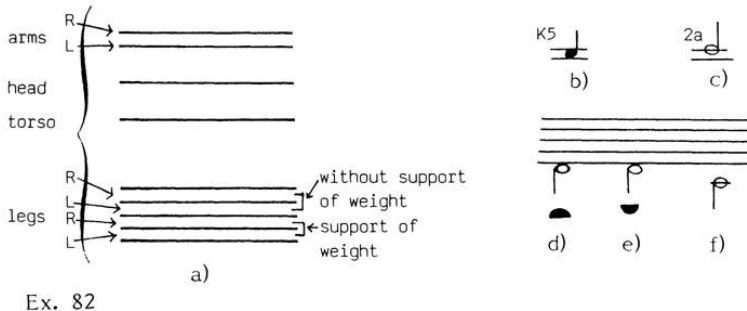
Body Indications

Conté: Indication of Body

Conté also chose a nine-line staff, Ex. 82a. The upper two lines are used for the arms, the right arm on the top line, left arm on the bottom line. Both arms moving alike are written in the space between. The center two lines of the staff are for the head and torso, while the five lines at the bottom provide four spaces for the legs. The two lower spaces are for supports, the two upper for gestures, i.e. movements of the leg in the air. In each case the lower of the two spaces is for the left leg and the upper for the right.

Movements of individual parts of the body are denoted by either addition of a letter, a specific sign, or placement of the music note on a line. For example, the letter 'K' placed next to a note in an arm location indicates the shoulders. In 82b both shoulders are up: in 82c the right arm is out to the side with the wrist bent 'forward' 90° (i.e. the hand is down). Ex. 82d states lying on the back, e) lying on the front. Supporting on the head is written as 82f.

Conté - Staff; Parts of the Body

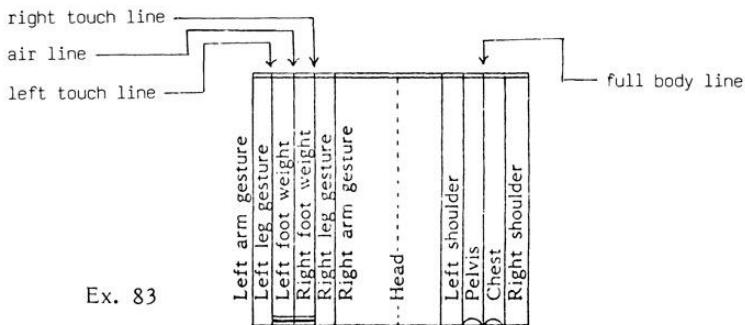


Ex. 82

Nikolaïs: Indication of Body

In the Nikolaïs system a vertical staff, derived from that used in the Laban system, represents the body. Nikolaïs considered it more practical to divide his staff into two parts, comparable to the division of the music staff into treble and bass. The section of staff on the left is made up of five vertical lines, the center line of which represents the center line in the body, dividing right and left. Next to this center line are written supports - weight normally being on the feet. The next column out on either side is for leg gestures, the leg in the air (i.e. any non-weight-bearing leg movements). The spaces directly outside these five lines are for the arms, left and right. Indications for the head and whole torso are written separately on either side of a line placed between the two main staves. Beyond this to the right is the other section of five vertical lines. Movements of the pelvis and chest are written in the center spaces, the outer spaces being for the left and right shoulders. It was Nikolaïs' belief that such division of the staff made for easier reading.

Nikolais - Staff



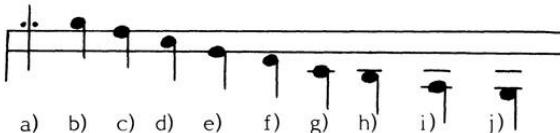
Music Note Systems: Indication of Direction, Level

Stepanov: Direction, Level

In the Stepanov system placement of the music notes on the lines and in the spaces states the direction and level. For each section of the staff these indications are different; each having its own starting point, the normal position for that part of the body. This 'zero' position is indicated by a 'clef'. For the head and body the 'clef' is a single vertical line with two dots placed just above the two-line staff, 84a. A note placed in this space, b), states the normal vertical position. Ex. c) shows a movement forward high; d) shows right side high; e) backward high; f) left side high. Exs. g) - j) indicate horizontal level for the forward, right, backward and left directions.

Stepanov -
Head and Body

Ex. 84



On the section of the staff for the arms a ‘clef’ with two vertical lines with dots is placed below the bottom line of the three-line staff, 84k, this location being the normal downward situation for the arms, illustrated by the placement of the note in 84m. From here directions for the arms move up the staff, only the right arm being illustrated here; for the left arm it is the same but the stem of the note points upward. Ex. 1) will be explained in a moment. On the staff for the arms each line represents the direction forward, each space sideward, the level rising as the notes ascend. Ex. n) and o) are forward and sideward in low level (sideward is, of course, the open side direction). Ex. p) and q) show horizontal forward and sideward, and r) and s) state forward and side in high level. Ex. t) is the direction straight up.

Stepanov -

Right Arm

Ex. 84



Because of his anatomical analysis of movement Stepanov decided the arm is only able to move to a low level in the backward direction, indicated in Ex. 1). To raise the arm higher than this the body must come into play; therefore in

this system backward middle (horizontal) does not exist for the arm. It is interesting to observe, however, that he does consider backward horizontal as possible for the leg, although anatomically the pelvis must be involved even when the leg is raised only slightly off the ground. This inconsistency would seem to be the result of the influence of ballet.

On the section of staff for the legs the ‘clef’ is three vertical lines with dots placed in the center space, Ex. 84u. Ex. v) is the direction straight down. To indicate direction and level for the legs, the signs move symmetrically up and down the staff for the left and right sides. Ex. w) shows low level gestures for the left leg - forward, side, and backward. Middle level directions - forward, sideward, backward, are shown at x). For high level, Ex. y), forward and sideward can be indicated, but not backward, this last being deemed physically impossible. The last note therefore indicates straight up.

Stepanov -
Direction, Level
(Left Leg)

Ex. 84 u) v) w) x) y)

The diagonal directions - that is the directions between forward and side, and backward and side - are written as a forward or backward movement with the sign for abduction or adduction placed on the stem of the music note. Ex. 84z shows the right arm right forward diagonal while Ex. zz)

shows the left arm to be right forward diagonal horizontal, i.e. forward, but adducted (the crossed diagonal).

Stepanov -

Diagonal Directions



Conté: Direction, Level

Conté uses numbers to indicate direction, the number being placed next to the music note. Zero indicates down, number 1 forward, 2 is to the side - the open side being understood unless a little 'flag' is attached to the note to indicate right or left, or a 'd' for droite or 'g' for gauche is added. Note that in these examples the indications have been anglicized to 'r' and 'l'. The direction backward is shown by a number 3; number 4 is reserved for twisting, and again the 'r' or 'l' must be added to show whether twisting is to right or left. Number 5 is used for the direction up (place high). Finding it odd that twisting should be inserted among indications for the main directions, I asked

Conté why 4 was not used for straight up and was informed that 5 had to be up because the position with the arms up in ballet is 5th position, thus 5 is logically the appropriate number for the direction up. This choice suggests a decided influence of ballet on the system.

Conté - Direction, Level

0 = down

1 = forward

2 = side

Ex. 85a

$\left\{ \begin{array}{l} 2R \text{ or } 2 \uparrow \\ 2L \text{ or } 2 \downarrow \end{array} \right.$

3 = back

4 = twist

4R = (D)

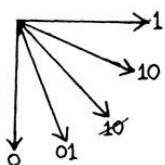
4L = (G)

5 = up

Intermediate directions are shown by combining numbers. Here the possibilities between the direction straight down and forward horizontal are given: 01 for nearer-to-down; 10 for nearer-to-forward, and ~~10~~ (a number 10 with a stroke through it) for the halfway point, Ex. 85b.

Conté - Intermediate

Points



Ex. 85

b)

Conté - Shorthand Devices



large circles

small circles
(lower limb)



retiré



ramassé (as in
pas de cheval)



detourné



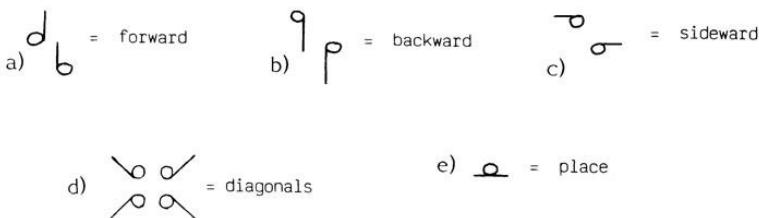
enveloppé

Conte resorts to several shorthand devices for movements familiar in ballet. Of the sixteen or so such signs only a few, such as certain circular movements are illustrated here, Ex. 85c.

Nikolais: Direction, Level

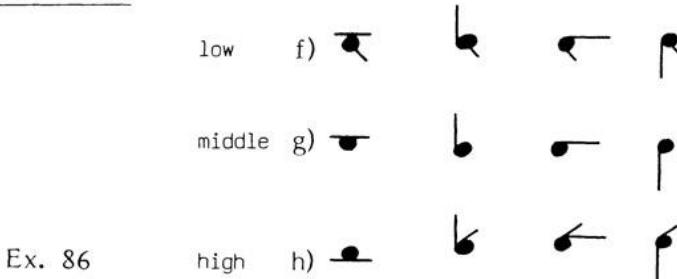
Nikolais uses the pictorial device of pointing the stem of the music note into the direction to be indicated. Thus Ex. 86a shows forward for right and left sides of the body, b) shows backward, c) to the side and d) the four diagonals. For ‘place’, Ex. e), the stem must project on either side of the note-head. The levels, low and high, are indicated by adding a small stroke to the direction sign, a downward stroke for low level, as in f), and an upward slanting stroke for high, h). No stroke at all indicates middle (horizontal) level, as in g).

Nikolais - Direction



Ex. 86

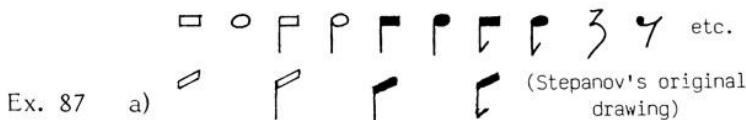
Nikolais - Level



Music Note Systems: Timing

Time values established in music notation represent fundamentally the same thing in dance notation systems using the device of music notes. In Stepanov's system the whole-note (semi-breve), half-note (minim), quarter-note (crotchet), etc., are drawn oblong to show contact with the ground and round for gestures in the air. Stepanov's oblong notes were slanted upward, Gorsky changed them to horizontal. Both Conté and Nikolais have columns for leg supports and therefore require no such note modification. However, the Conté system uses a smaller note-head for leg gestures than for indications of support.

Stepanov - Timing



Conté, Nikolais - Timing

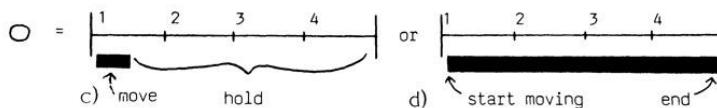


Indication of the duration of movement through music notes would appear to be quite obvious. However, one comes up against a major snag: the possibility of different interpretations.

What is to be the interpretation of a whole note in terms of movement? Is it to be like that of a piano player who strikes a

note and must hold for three more beats in order to keep the note sounding? For dance, does a whole note mean take a position and hold still for the rest of the four beats, as in Ex. 87c? Or should it mean begin a movement and take four beats to arrive at the destination, i.e. sustain the movement during four beats, as in d)? Does the point where the music note is written signify the moment of starting that action or of ending it? Stepanov states: "We write poses or movements which continue over two units of time with symbols which are notated as halves (minims) etc." Poses are shown by not connecting the notes, Ex. e); flowing movements are connected by a bow, f).

Music Notes – Interpretation

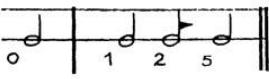


Ex. 87 e) = separated (poses) f) = legato (movement)

Conté chose the musical principle: i) every position is taken at the moment it is noted on the score; ii) the time of the movement needed to reach the next position is subtracted from the duration of the preceding position. He defines a 'static phase' (arrival) and a 'cinematic phase' (motion to the destination). The latter is specified by a wavy line over the note. Unless specified, the static phase is half of the note value. (See further notes on timing, pages 97, 99 and 100.)

Conté - Timing

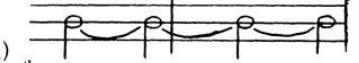
(as written)

Ex. 87 g) 

h) 

repeat tied note to hold position

Stepanov -

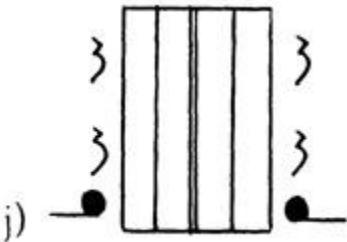
Timing i) 

In Stepanov a bow linking the same notes, as in 87i, indicates holding that position. In the Nikolais system rests are used to indicate no movement, 87j.

Nikolais -

Timing

Ex. 87



Music Note Systems: Bending

Because music note systems introduce movement analysis to some degree, it would seem important here to discuss the action generally called ‘bending’ or ‘flexing’. In what ways can parts of the body bend? For our purposes here a broad division will suffice. When a limb contracts (i.e. a movement of the limb as a whole) the extremity draws in toward the base on a straight line, keeping the same basic line of direction. If the arm starts forward horizontal, a whole arm contraction causes the hand to approach the shoulder (the base of the limb). Maintaining the same line of direction results in the

hand ending in front of the shoulder. The other main possibility is folding a single joint. For the arm, folding the elbow will bring the lower arm toward the upper arm until complete folding results in the hand being near the shoulder. In this movement the hand will have produced a curved path on its way to the shoulder while the upper arm does not move. Of these possibilities for bending, the first is based on a concept which stresses spatial relationship, the other on the action of a joint in the body. In most systems of notation the word ‘bending’ refers to the latter, that is, the action of the individual joint.

Stepanov: Bending

In the Stepanov system, bending the mid-joint of the limb is indicated by placing a stroke across the stem of the music note, Ex. 88a. The more strokes, the greater the degree of bending, 88b and c). In order to provide a wider range of degrees, signs for diminished, d), and augmented, e), are added to the note stem. These signs are derived from the mathematical signs for ‘is less than’, and ‘is greater than’; they do not relate to the musical signs for crescendo and diminuendo. Thus f) shows a slight bend, g) a normal first degree, h) a bit beyond first degree, i) second degree, j) less than third degree and k) the third degree which would be totally flexed.

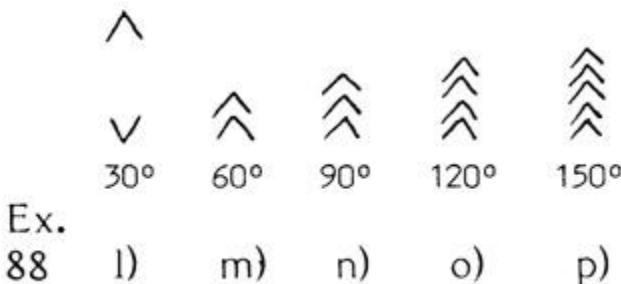
Stepanov - Bending

Ex.	a)	b)	c)	d)	e)	f)	g)	h)	i)	j)	k)
88				<	>						

Conté: Bending

In the Conté system, bending a limb is shown by the addition of carets, or ‘little hats’ as he calls them, placed above or below the note. Degrees of flexion are indicated by the number of carets. Exs. l) - p) show the five degrees.

Conté - Bending; Degrees



Ex. 88q shows Conté notation for standing on a bent right leg, the left leg forward and bent (contracted) three degrees. A ‘g’ (genou) next to the note states foot at the knee (retiré position), 88r.

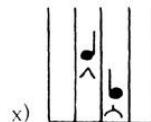
The musical notation consists of two parts. Part q) shows a note on the first line of a four-line staff with a downward caret below it, labeled '1'. Part r) shows a note on the second line of the same staff with a downward caret below it, labeled 'g'. Below the staff, the example number 'Ex. 88' is followed by 'q)' and 'r)'.

Nikolais: Bending

Nikolais places pictorial indications of the curved limb and degrees of bending next to the music note. Exs. 88s - w) show the 5 degrees: 1st degree a slight curve of the limb; 2nd an angle; 3rd a right angle; 4th nearly totally bent, and 5th totally bent. The point of the symbol indicates the direction of the bend. Ex. x) shows a step forward on the right foot with a slightly bent knee, followed by a step forward on the left foot with the leg bent to a right angle, both with parallel legs.

Nikolais - Bending

s)		t)		u)		v)		w)	
Ex. 88	1°	2°	3°	4°	5°				



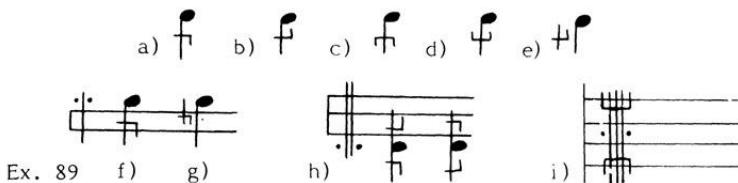
Music Note Systems: Rotating

Stepanov: Rotating

Rotating, or twisting a limb, is indicated in Stepanov's notation by an angular stroke on the stem of the note. Ex. 89a shows an eighth rotation to the right, b) is the same to the left. Ex. 89c indicates a quarter rotation to the right, and d) a quarter to the left. These signs are used for rotations of the legs, head, arms, trunk, etc. When the indication is placed on a line adjacent to the note, as in e), it shows rotation of a third-degree part. An eighth torso rotation to the right is written as in 89f, while g) shows rotation of the head. Outward and then inward rotations of the arms are shown in h), the arm being down. Ex. i) gives the key used in all

Stepanov scores for balletic turn-out, the clef for the leg staff plus the 90° turn-out for each leg.

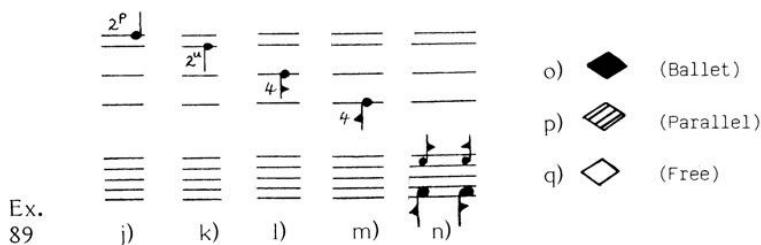
Stepanov - Rotating



Conte: Rotating

For rotations (twists) of the arms, Conté uses the letter 'p' for pronation (inward rotation), Ex. 89j, and 'u' for supination (outward rotation), as in k), the letter being placed next to the arm indication. For head and torso the number 4 indicates a twist, a small black 'flag' being added to the stem of the note to state twisting right (as in 89l for the head) or left (as in 89m for the chest). This same 'flag' is used for leg rotations, n) indicating first outward rotation for both legs (the left leg supporting) and then inward rotation. Keys at the start of a score indicate the rotated state to be used throughout. The sign as in Ex. 89o states balletic turn-out, p) shows legs constantly parallel and q) gives freedom in rotational state, i.e. 'normal'. If no key is given the degree of leg rotation is left open.

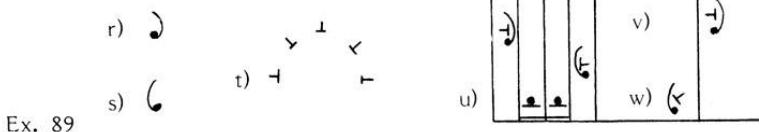
Conté - Rotating



Nikolaïs: Rotating

The sign for rotation to the left, 89r, and rotation to the right, s), are placed in the appropriate columns on the staff to show rotations of parts of the body. Degree of rotation is shown by a flat pin, t). In u) the right leg rotates out a 1/4, then the left does the same; this is followed by simultaneous inward rotations to end parallel facing front. In v) the head turns 1/8 right: in w) the torso rotates 1/4 left.

Nikolaïs - Rotating



Music Note Systems: Positions of the Feet

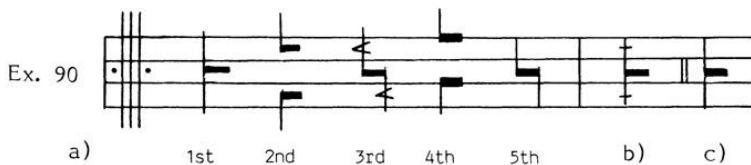
As with previous systems, notation of the five positions of the feet, as well as demi-plié and rising on half-toe (relevé), will be compared.

Stepanov: Positions of the Feet

Ex. 90a shows the five positions of the feet in Stepanov notation. In 1 st position both feet are in place, the square note indicating contact with the ground. In 2nd position each leg is to the side; for 3rd position the indication is written as 5th but with the diminished signs added; 4th position states the right foot is forward, the left backward; 5th shows the feet in place but with the right foot in front. Feet together with the knees bent (as in a demi-plié) is shown by adding the stroke for bending across the stem of the note, Ex. 90b. Weight on half-toe (as in a relevé) is stated by two vertical strokes next to the indication of 1 st position, Ex. c).

Stepanov - Positions of the Feet

Plié, Relevé



Conté: Positions of the Feet

For Conté, 1st position is indicated by the notes themselves in the support columns. Numbers next to the notes show direction for the open positions, 2nd and 4th. In these examples the right foot is forward and the left back. For 3rd position the letters 'OV' show partial crossing, and a line placed above them shows which foot is in front; if the line is written below it shows which is behind. In this example of 3rd position the signs are placed next to the right foot to indicate 3rd right foot in front. The greater crossing, as in a 5th position, is shown by the letters 'OX'. Since in this example of 5th position the indication is placed next to the left foot and the line is below, the left foot is behind, i.e. the right foot is in front. Bending the legs (demiplié) in 1st position is shown with the bending signs, the carets, placed above and below the note, Ex. 90e. The sharp signs (taken from music notation) indicate supporting on half-toe (as in relevé), Ex. f).

Conté - Positions of the Feet

Ex. 90

The diagram shows seven musical staves. The first six staves are labeled d) through i). Each staff has two vertical stems. The top stem always has a black note head. The bottom stem has a black note head in positions 1st, 2nd, 3rd, and 4th; in 5th position, it has a white note head with a black outline. Position 1st has a vertical line through the note heads. Position 2nd has the number '2' next to the top note head. Position 3rd has 'OV' next to the top note head, with a horizontal line above it. Position 4th has the number '3' next to the top note head. Position 5th has 'OX' next to the bottom note head, with a horizontal line below it. The last staff, labeled e), shows a caret (^) above the top note head and a caret (v) below the bottom note head. The staff is labeled 'Plié, Relevé'.

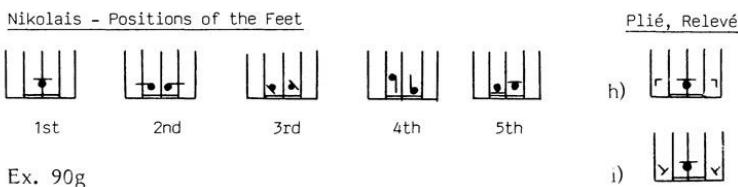
Plié, Relevé

d) 1st 2nd 3rd 4th 5th e) f)

Nikolais: Positions of the Feet

In Nikolais' system 1st position is written in the support column as both feet 'in place'; for 2nd, each support is sideward of center; 3rd is shown by the 'place' signs being set on the diagonal; in 4th, one support is forward, the other is

back; for 5th, the ‘place’ signs are written so that one foot is clearly in front, the other behind - here the right foot is in front. Bending the knees is shown by the angular flexion sign being placed next to the support, Ex. 90h. To state supporting on half-toe the sign for half-toe (ball of foot contact) is added, as in i).



Music Note Systems: Turning, Pirouette

Stepanov: Turning, Pirouette

Turning the whole body, as in a pirouette, is ‘shown by a change of front. The directions in the room are numbered, starting with zero for the audience, Ex. 91a. Going clockwise this gives 1 for the right front corner; 2 for the right side, and so on. Ex. b) shows starting at corner 1, a gradual turning to 2 and then on to 3. In this progression the turn is obviously to the right. When the direction is in doubt, a plus sign is used for turning right and a minus sign for turning left. Ex. c) starts facing 1, then, as shown by the plus sign, you gradually turn to the right to end facing 7. After a pause turn to face front, i.e. zero. After another pause perform a slow turn to the left. Note that these indications are Gorsky’s simplification of

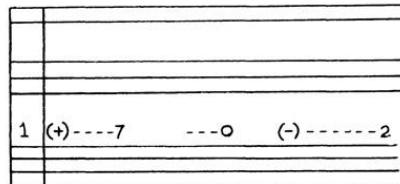
Stepanov's original numbering which had 1 as the audience, 2 as stage right, 3 as upstage, etc. with the corners numbered 5, 6, 7, 8 going clockwise.

Stepanov - Turning

Ex. 91 7 1
 6 2

a) 5 4 3

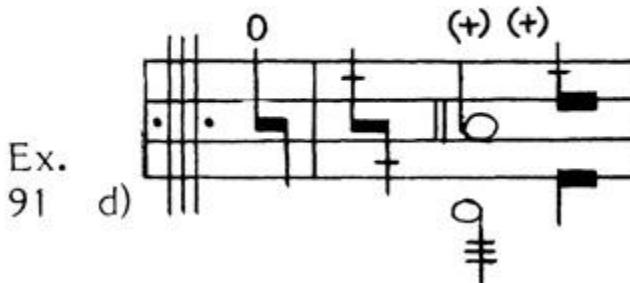
b) 1 - - - 2 - - - 3



c)

The description of turning is destinational; no degree of turn is provided. Such description of turning is common in systems based on theatrical dance. Ex. d) is the double pirouette en dehors. Starting in 5th, right foot front, Ex. the knees bend on count 1. The turn takes counts 2 and 3; the finish on count 4 is in 4th position, right foot back, the left knee bent. Note: two plus signs

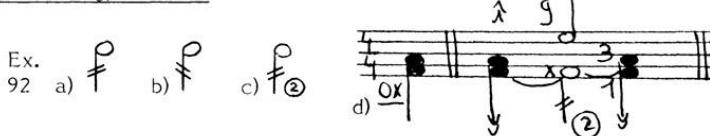
Stepanov - Pirouette



Conté: Turning, Pirouette

Conté shows turning the whole body, as in a pivot turn, by placing two slanted strokes on the stem of the music note. Strokes slanting to the right, as in 92a, show turning to the right; strokes to the left, b), show turning to the left. The number of turns to be achieved is written in a circle placed next to the turn sign. In c) two turns are to be performed. Ex. d) shows the sign in context in the double pirouette en dehors sequence described above.

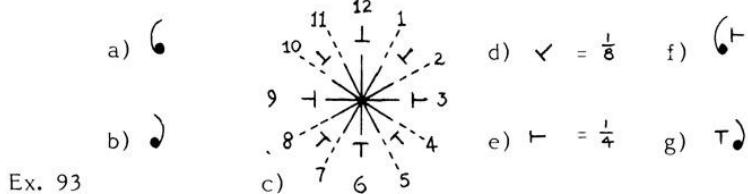
Conté – Turning, Pirouette



Nikolais: Turning, Pirouette

Ex. 93a shows the sign used by Nikolais for turning to the right and b) for turning to the left. Indication for degree of turn, shown by a straight-backed pin (a tack), is based on the idea of a clock, c). Each turn starts at '12 o'clock'; thus an eighth turn to the right would end at '1:30', Ex. d), and a quarter turn right would end at '3 o'clock', Ex. e). The straight-backed pin is placed within the turn sign, as in f). A half turn would end at '6 o'clock'; the pin showing this amount of turn is therefore pointing backward, as in g).

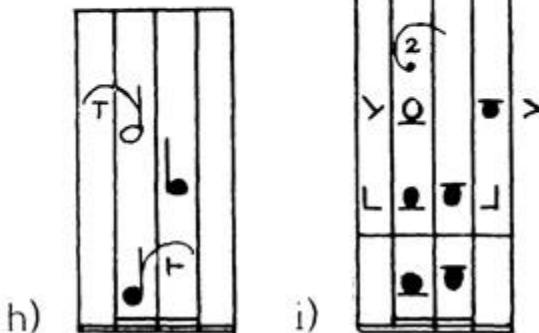
Nikolais - Turning



These turns are combined with steps, as shown in Ex. 93h. A step forward on the left foot is combined with a quarter turn to the right. This is followed by a step forward on the right foot, then a step forward on the left into a half turn to the left, this movement taking two counts. Ex. i) gives the double pirouette en dehors sequence already described, starting in 5th right foot front and ending in 4th, right foot backward, left knee bent.

Nikolais - Pirouette

Ex.
93



Music Note Systems: Walking, Jumping

Stepanov; Walking

Direction of step in the Stepanov system is indicated by a preparatory leg gesture tied to the following support sign by a dotted bow. Ex. 94a shows a step forward on the right foot (the square note indicating contact with the ground, taking weight), followed by a step to the left on the left foot and then a step backward on the right foot.

Stepanov - Walking Sequence

Ex. 94 a)

The musical notation consists of three measures on a single staff. Measure 1 starts with a square note (representing weight) followed by a dotted bow connecting to a vertical support sign. Measure 2 starts with a vertical support sign followed by a square note. Measure 3 starts with a vertical support sign followed by a square note.

Conté - Walking Sequence

b)

The musical notation consists of three measures on a single staff. Measure 1 has a vertical support sign below a note. Measure 2 has a vertical support sign below a note. Measure 3 has a vertical support sign below a note. Below the staff, the numbers 1, 2, and 3 are written under the notes respectively, indicating the direction of each step.

Conte: Walking

The walking pattern illustrated in Stepanov notation is shown above in the Conté system, Ex. 94b. The notes are placed in the appropriate support columns. The forward step on the right foot is designated by the number 1; number 2 indicates the side direction for the step on the left foot, and 3 states a backward step for the right foot.

Nikolais: Walking

Ex. 94c shows Nikolais' notation for the same walking pattern. The stem of the note indicates the required direction for the steps, the notes being placed in the right or left support columns: forward on the right, sideward left, backward right.

Nikolais -
Walking
Sequence

Ex. 94 c)



Stepanov: Jumping

The series of jumps given before for Stick Figure (Visual) systems will now be presented in the Music Note systems.

Ex. 95a, Stepanov system, starts with feet together in first position, knees bent. Two leg gestures show springing into the air; landing in second position is shown by supports in the sideward direction, again with knees bent. This is followed by springing again to first position, then springing into landing backward with feet together, the backward traveling being indicated by preparatory backward leg gestures, even though the legs do not actually go backward while in the air.

Stepanov - Jumping Sequence

Conté - Jumping Sequence

Ex. 95 a)

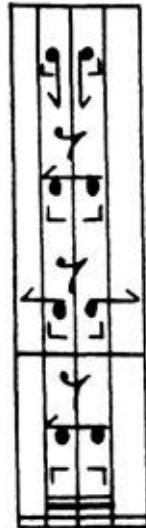
b)

Conte: Jumping

Ex. 95b above shows the same jumping pattern in the Conté system. The legs start together, knees bending being shown by the ‘little hats’. Springing into the air is stated by the rest sign; landing in 2nd position by the number 2. After the second spring landing with feet together is shown by addition of the zero. The third spring is followed by landing backward (shown by number 3) on both feet. It is interesting to note here that Conté followed the music rule that an accidental, such as the number 2, will prevail throughout a measure. Therefore in this example the zero must be used on the second beat to indicate that the feet come together again, whereas the zero was not needed for the starting position.

Nikolaïs: Jumping

The jumping sequence in Nikolais’ notation is illustrated in Ex. 95c. The feet start in 1st, knees bent. The rest sign across the center line indicates springing into the air, the feet then land apart (each one to its own side) with knees bent. The second spring is followed by landing with feet together, and the third spring by landing backward on both feet.



Nikolaïs - Jumping Sequence

Ex. 95c

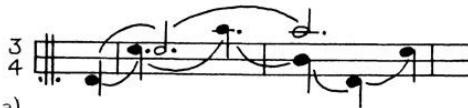
Music Note Systems: Arm Movements

Stepanov: Arm Movements

The same circular arm pattern given previously (page 62, Ex. 70) is explored here in all three systems. Ex. 96a illustrates the sequence in the Stepanov system. Both arms start down. In the first measure of three beats the left arm moves to side horizontal, in the next measure it arrives up ('place high'). In the first measure the right arm moves to side horizontal then up to 'place high', continuing in the next measure to move through forward horizontal, straight down and finally to arrive at side horizontal.

Stepanov -
Arm Sequence

Ex. 96



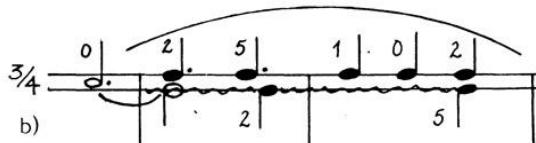
a)

Conte: Arm Movements

Ex. 96b illustrates Conté notation for the same arm pattern. In the Conté system a zero indicates down and placement of the note in the space shows that both arms are alike. The left arm, written on the lower line, moves to 2 (side horizontal) and then in the second measure to 5 (overhead). The wiggly line connecting the notes indicates fluent transitions. In the first measure the right arm moves to 2, then to 5. In the second measure it moves to 1 (forward), zero (down) and then ends at 2 (the open side direction).

Conté - Arm
Sequence

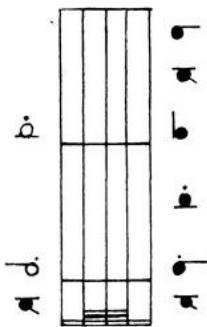
Ex. 96



b)

Nikolaïs: Arm Movements

In Nikolaïs' system the stem of the note indicates direction. In 96c both arms start straight down. As the left arm moves horizontal during three counts, the right moves through side to straight up. In the second measure, while the left arm moves up during three counts, the right arm lowers through forward horizontal to down and out to the side.



Music Note Systems: Advantages

For anyone already familiar with music notation, use of the same symbols to show time value has an immediate appeal; learning only one set of signs would seem to be killing two birds with one stone. Use of a staff derived from the music staff has a similar appeal, although most staffs are somewhat modified to serve movement. Nikolais' system is the exception with his vertical staff.

Music Note Systems: Disadvantages

Some people who have a musical background object to having music notes and their placement on the staff 'mutilated'. They believe such usage is confusing rather than helpful, particularly to a young student, and prefer non-music signs for recording dance.

In actual practice it will be found that use of music notes for the indication of timing for movement is neither as obvious or as practical as it first appears. In the case of fast movements

there is little problem. The dancer must in any case move quickly and precise timing in performance of the start, duration and finish of a movement does not come into the picture. However, what of slow movements? Inventors of music note systems seem to have taken the movements of a pianist as their guide, the arm being held as the sound of the note is sustained, rather than those of a violinist whose arm must continue to move to sustain a long note.

For this investigation let us consider the movement written in 97a in Labanotation (written horizontally for purposes of comparison). The left arm is shown to start down. On count 1 of the first measure the arm begins to move and takes three counts to arrive side horizontal. Then in the second measure it takes three counts to move down to the starting position before rising in three counts to forward horizontal in the third measure. How can this timing be indicated in a music note system? Let us start with Stepanov's method.

According to his rule, a dotted minim (half-note) signifies arrival at the destination at the moment the note is 'struck'. This means that a series of such actions, Ex. b), will produce separated movements, as illustrated in Labanotation in 97c. The arm arrives at its destination in one beat, or possibly even a half beat, and pauses there until the next note (movement) is 'struck'. To show sustained, continuous movement the notes are tied with bows. Ex. d) shows the same pattern performed fluently. However, we discover that the first sideward movement must still be swift, starting and finishing on the first beat of the first measure. The subsequent movements can then be sustained. The path of the arm moving down occurs during the rest of that first measure and concludes on the first beat of the second measure, and so on, the timing for this

being illustrated in Ex. e). Such arrival on the start of a measure is typical of ballet style in which transitions tend to be incidental and destination the important feature.

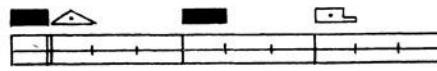
How can the performance of 97a be achieved? Ex. 97f shows what would immediately come to mind as an obvious visual solution. However, in music notation the exact location of a single dotted half-note (dotted minim) between two bar lines in 3/4 meter does not change its meaning. Such a note would still be ‘struck’ as the first note in the measure and held for the rest of the measure. The desired timing of 97a, i.e. commencing to move on the first beat and arriving only at the end of the last beat of that measure has still not been achieved.

Arriving on the third note in the measure could be achieved as in g) by holding the previous position and only moving at the end. But this again would produce separated movement, as illustrated in Ex. h). The answer obviously would be to have a chromatic scale in movement and thus show the various points through which the arm passes. The nearest expression of this movement is shown in Ex. i) which describes the movement passing through side low before arriving at side horizontal. The interpretation of 97i into Labanotation is shown in j). The desired timing has not been achieved in Stepanov’s use of music notes.

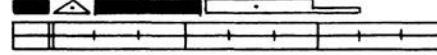
Music Notes - Exploration of Interpretation of Timing

a) 

b) 

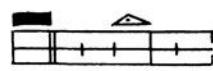
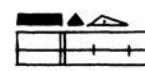
c) 

d) 

e) 

f) 

g)  i) 

h)  j) 

Ex. 97

Let us look at individual music note systems and see the advantages or disadvantages of each, apart from the problem of timing.

Stepanov: Advantages

The Stepanov system has the advantage of basic simplicity. There are not many signs to learn and it is adequate anatomically. Placement of actions of bending the mid-joint, rotating, etc. on the stem or alongside the note makes it possible to show several movements happening at the same time. The system proved useful to Massine both for illustration of basic movement possibilities from the anatomical point of view and for illustrating his compositional ideas which he based on this movement approach.

Stepanov: Disadvantages

Stepanov's system has the disadvantage that, for each part of the body, direction is indicated differently. Directions cannot be written out of context; they can only be known when the note is placed on the staff. The signs for augmentation and diminution come from mathematics, i.e. 'greater than', 'less than', and are not related to the increase and decrease signs used in music. This is a small point, but annoying since it must be specially memorized. Symmetrical movements of the legs appear as symmetrical designs on paper; this is not true for the arms. Movements of the body are limited; fine details cannot be written, the need for subtleties had not been anticipated.

In translating dances from the Sergueyev manuscripts, it was found that description of the ballet steps is somewhat crude. A glissade is written as a traveling assemblé, whereas an assemblé is written as a jump from both feet landing on both

feet, one leg having moved out to the side while in the air. Correctly performed, a glissade lands first on one foot with the other closing soon afterwards, whereas an assemblé springs off the ground from one foot while the other moves out to the side. The system itself allows for more careful descriptions. The outline descriptions met in the scores indicate use of the notation as a memory-aid; it was not expected to be read by an outsider unfamiliar with the ballet vocabulary. The system fell into disuse largely because new styles of dance introduced by Fokine, Nijinsky, etc. were difficult to analyze; notators using the system were skilled only in recording the classical vocabulary.

In Gorsky's publication of Stepanov's method he states: "Poses or movements lasting two units of time we notate with signs called halves (1/2) as they are made up of two quarters. Poses or movements lasting four units are notated with two half notes connected by arches." These statements are confusing, a pose is held, a movement continues on in space. How do we know when a pose or a movement is being indicated? In addition it is not clear how exact timing is shown. If

actions written on one note are not to be simultaneous, how can slight overlap be indicated? A head tilt accompanied by a rotation may commence with tilting, the rotation appearing slightly later, or vice versa. Such variations in inter-related timing are very expressive and may be important. Most systems of notation do not accommodate such subtleties in timing, but for those using music notes timing would appear to be of major importance and methods established for indicating fine details. In the ballet scores written in Stepanov's system the units of timing were obvious and no subtleties were required.

Conte: Advantages

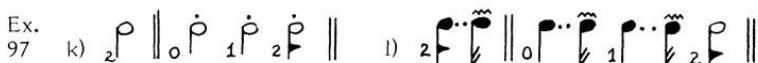
Conté was a prolific worker who notated many of his own and for several years published a magazine containing many of notated dance materials. Conté was obviously well versed in notation as well as being fluent in his own system. Since his work is being carried on by a few dedicated former students. has been a dearth of additional publications, particularly any textbook in the system. Now, however, the system may be further through the interest of a younger generation.

As a musician, Conté gave particular attention to timing. He was concerned with the two phases in movement: the ‘cinematic’, i.e. the motion or progression of a movement, and the ‘static’ phase, the ent of arrival in taking a position. He organizes timing possibilities into the following categories:

1. Standard division between static and cinematic phases
2. Staccato movement
3. Legato movement
4. ‘Thrown’ movement
5. ‘Delayed’ movement

As we saw in Exs. 87g and h), the standard (understood) division is half the note value for the static phase, the other half being the cinematic phase. Staccato movement is written as Ex. 97h while 1) is the movement indicated in detail. The movement here starts at side right, progresses down, then forward and ends out to the side.

Conté - Staccato Movement



As can be seen, the static phase is held so that the motion is brief. Legato movements, he states, are composed only of cinematic phases, these being indicated either by the horizontal legato bow used in music or by linking the notes with wavy lines, as in Ex. 97m and n).

Conté - Legato Movement



Ex. 97o spells out more exactly the legato effect.



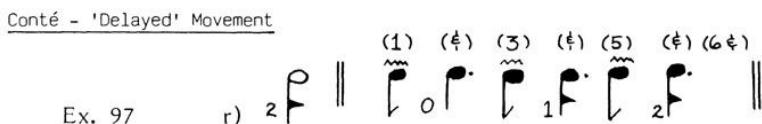
'Thrown' movement is what Conté calls a stressed static phase followed by a legato movement. This involves an acceleration of speed preceding the static phase and a diminution of speed following it.

Conté - 'Thrown' Movement



'Delayed' movement means arrival of a static phase on a weak beat or weak part of the beat. It may happen that the

cinematic phase begins on a strong beat or strong part of a beat. For the following example the movement could be that of the torso moving forward 45°, to the right side, then to the back and finally arriving upright. The movement begins on the strong part of the beat and the position for each direction is reached on the weak beat.



Note that in Ex. 97r counts in parentheses have been added for clarification; these are not normally used.

As can be seen from the above, Conté, with his musical background, gave careful consideration to the question of timing, indeed to a far greater extent than any other inventor of a music note system. How far is his usage applicable to the subtle needs of contemporary choreography remains to be seen. Nowadays we meet the need in dance education as well as in choreography to be free in use of timing, indeed, even to be vague, unspecified. How can music notes be used without any automatic indication of duration?

Conte: Disadvantages

Several features in Conte's system suggest that it is ballet-biased, a feature which can be a disadvantage to universal application. He uses the abbreviation 'cp' for cou-de-pied, a position of the free foot at the ankle of the supporting leg which is well known in ballet circles but not elsewhere. In numbering the directions he designated 'up' as

'5' in contrast to the expected '4' because, he said, 'up' is the 5th position for the arms in ballet. Although he developed indications for timing of movements to a greater degree than other music note systems he chose the basic interpretation of the music note duration to represent a position held rather than movement. By adhering to music notation rules he complicated indications of timing for movement. Because he used his system for his own dance compositions he did not encounter the needs of other choreographers and did not provide for details considered important by others, an example being indication of relationship between parts of the body, such as one hand above the other. Several categories of movement were not considered, rather he developed shorthand devices for certain more complex movements met in ballet. It is likely that the younger generation in France who are interested in the system will expand it when it is applied to other dance forms.

Nikolais: Advantages

Nikolais' system is based on sound movement analysis and the indication of direction is pictorial. The symmetrical staff allows for symmetrical movements to appear so on the page. He chose music notes since the note immediately indicates the duration of the movement. His choice of interpretation for a whole-note (semibreve) was a slow, sustained movement, a choice which simplified indication of movement time values.

Nikolais: Disadvantages

The Nikolais system has suffered from lack of sufficient development and widespread use. No textbook was published

and beyond materials used in his notation courses and sections of scores, there is not a body of literature through which it can be studied. Many movement details such as intermediate directions are not covered. Indication of level for gestures is an added rather than an integral factor and timing for indication of levels and flexion is subservient to the main directional indication.

Chapter Five

Abstract Symbol Systems

So far, in following through the centuries, we have seen the expected progression in the type of method used to record movement: from word abbreviations to track drawings, to stick figures (visual systems), to modified music notes and now, finally, to use of abstract symbols.

Theleur System

The 19th century saw an isolated instance of an abstract symbol system, published by E. A. Théleur in 1831, Letters on Dancing.

LETTERS ON DANCING,

REDUCING

This Elegant and Healthful Exercise

TO

EASY SCIENTIFIC PRINCIPLES.

MOST RESPECTFULLY DEDICATED, BY PERMISSION,

"

THE MOST NOBLE THE MARCHIONESS OF LONDONDERRY.

"

E. A. THÉLEUR,

Clérical Élève de l'Académie Royale de Danse de Paris, de la Chambre de Mons. Coquelin Père, et Premier Danseur et
Maître de Ballet dans plusieurs Théâtres principaux du Continent.

ILLUSTRATED BY

TWENTY-FOUR COPPER-PLATE ENGRAVINGS,

BY STEWART, HALPIN, RICKS AND READ.

SI QUID NOVITIS RECITIS IFTIS
CANDIDUS IMPERATI: SI NON MIS UTREX MECUM.

MOR.

SECOND EDITION.

LONDON:

PRINTED FOR THE AUTHOR, 46, GREAT MARLBOROUGH STREET, AND PUBLISHED BY SHERWOOD & CO.
PATERNOSTER ROW.

And sold by Mr. Gaines, Bookseller to the King and the Royal Family, St. James's Street; at Messrs. Goulding and
D'Almaine's Music Warehouse, Soho Square; at Mr. Fuller's Repository of Arts; Rathbone Place; at Mr. Regnier's
English & Foreign Library, 13, Regent Street; and by all the principal Book and Music Sellers in Town and Country.

1832.

Ex. 98

Little is known about Théleur; he was an English dancing master (probably Taylor) who studied in Paris and established his school in London. The book on his system must have achieved some success since it was reprinted the following year.



Ex. 99

Théleur was concerned with the art of dancing and the correct performance of the prescribed steps. His book includes many prints of dancers in costume in various poses as well as analysis of the movements and introduction of the symbols.

His terminology differs from that met elsewhere; for example, his numbering of the ‘ground stations’ (foot positions) and the eleven ‘half aerial’ and ten ‘aerial’ stations which he lists, are carefully explained. He provides signs for seven basic movements: bending, rising, sliding, circular, jumping, extension and adhesion. Although this list of basic movements is incomplete and questionable one senses a different type of mind at work. Ex. 100 illustrates his indications for the ‘half aerial’ and ‘aerial’ stations and the signs for the seven basic movements.

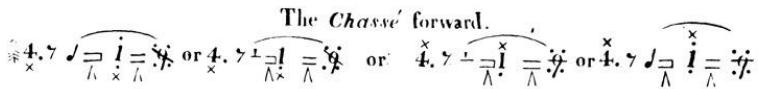
The Half Aerials are eleven in number, and can be written thus: $\dot{1} \dot{2} \dot{3} \dot{4} \dot{5} \dot{6} \dot{7} \dot{8} \dot{9} \dot{10} \dot{11}$ If they have four dots, thus, $\ddot{2} \ddot{3} \ddot{6} \ddot{7}$ it denotes that they are to be done behind; if underlined, thus, $\underline{\dot{5}} \underline{\dot{7}} \underline{\dot{9}} \underline{\dot{11}}$ it denotes that the leg should be high in the air, as in an attitude or coupé to the fifth half aerial station, &c.

The Aerials are ten in number, and can be written with dots below, thus $1 \dot{2} \dot{3} \dot{4} \&c.$

The Movements are seven in number, and can be put down by signs, thus :

- ✓ The Bending Movement.
- ✓ The Rising Movement.
- The Sliding Movement.
- The Circular Movement.
- ⊥ The Jumping Movement.
- = The Movement of Extension.
- ⇒ The Movement of Adhesion.

Ex. 100 Page 62 from Letters on Dancing



Ex. 100a Examples of Théleur's notation of steps

The system is of interest to us because Théleur recorded the Gavotte de Vestris, thus providing the opportunity to compare his version with that described by Tomlinson in 1820.

LA GAVOTTE DE VESTRIS.

四

A handwritten musical score for two voices, 'Cavalier' and 'Dame'. The score consists of six staves of music. The first two staves are for 'Cavalier' (treble clef) and 'Dame' (bass clef). The third staff is for 'Dame' (bass clef), indicated by a small figure of a woman. The fourth staff is for 'Cavalier' (treble clef), indicated by a small figure of a man. The fifth staff is for 'Dame' (bass clef), indicated by a small figure of a woman. The sixth staff is for 'Cavalier' (treble clef), indicated by a small figure of a man. The music includes various note heads, stems, and rests, with some notes having horizontal dashes through them. Measure numbers 1, 12, and 14 are visible on the left side of the score.

Ex. 101

Having provided the means of ‘spelling out’ each step, Théleur also includes abbreviated forms for many movements and steps, the various battements, ronds de jambe, glissades, etc., and concludes by giving the Gavotte de Vestris in this abbreviated notation as well.

With the advancement of technology in the 20th century, the use of abstract symbols and mathematical devices was a logical development. The first two such systems appeared in 1928.

Laban System

Rudolf von Laban's book, Sohviftanz - (Written Dance) - appeared in Vienna in 1928, this being the first presentation of his system as we know it today.

SCHRIFT TANZ

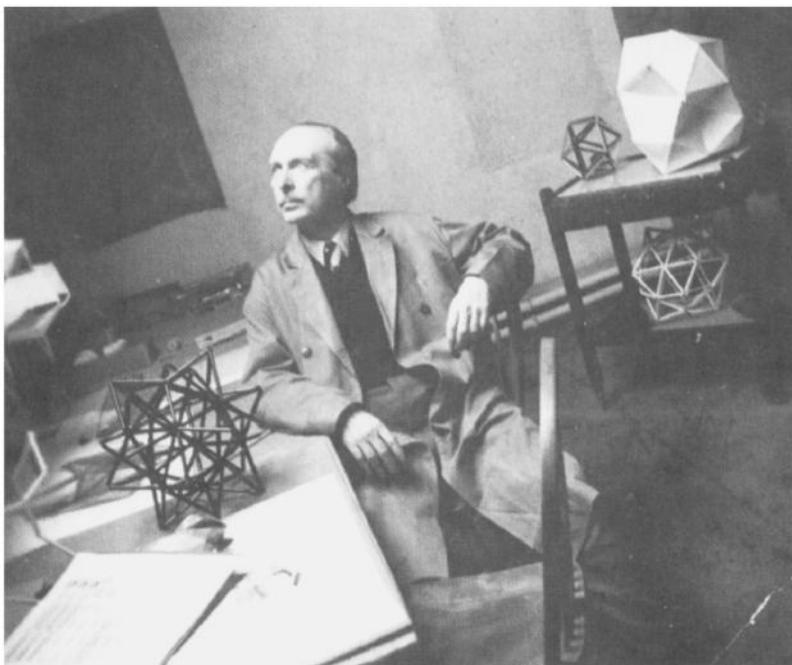
1

VORWORT	3
METHODIK	6
ORTHOGRAPHIE	12
ERLÄUTERUNGEN	19

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EDITION
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Ex. 102

Laban's early involvement with movement in different fields, his observations of people at work and at play, and also his interest in the roots of movement rather than in existing developed forms, gave him a broad view in his comprehension of movement and hence in his search for a means of writing it down. His first attempt, a shorthand for the type of space harmonies with which he was involved, gave way to a more universal approach to the recording of movement. This developed in two stages into the system as it was published in 1928 which basically has remained unchanged despite further development by others.



Ex. 103 Rudolf Laban

Laban's interest in crystalloid forms as found in nature led him to create many models and to explore in each one the inherent range of movement patterns produced by tracing between the points or across the surfaces. The above photo was taken in his studio at Dartington Hall, England, in 1938.

An English/French edition of *Schrifttanz* came out in 1930 as well as a book of notated studies.

SCHRIFTTANZ

LA DANSE ÉCRITE

SCRIPT DANCING

2

KLEINE TÄNZE MIT VORÜBUNGEN

PETITES DANSES
AVEC EXERCICES
PRÉPARATOIRES

SHORT DANCES
WITH PRELIMINARY
EXERCISES

AUFLÜHRUNGSSRECHT VORBEHALTEN
DROITS D'EXÉCUTION RÉSERVÉS — PERFORMING RIGHTS RESERVED

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EDITION
WIEN Copyright 1930 by Universal-Edition LEIPZIG

PRINTED IN AUSTRIA

Ex. 104

Ex. 105 is an extract from the 1930 book of studies. The notation was read vertically, as now, but was printed horizontally for practical purposes; one merely turns the page.

Übungen zum Kinetogramm 2

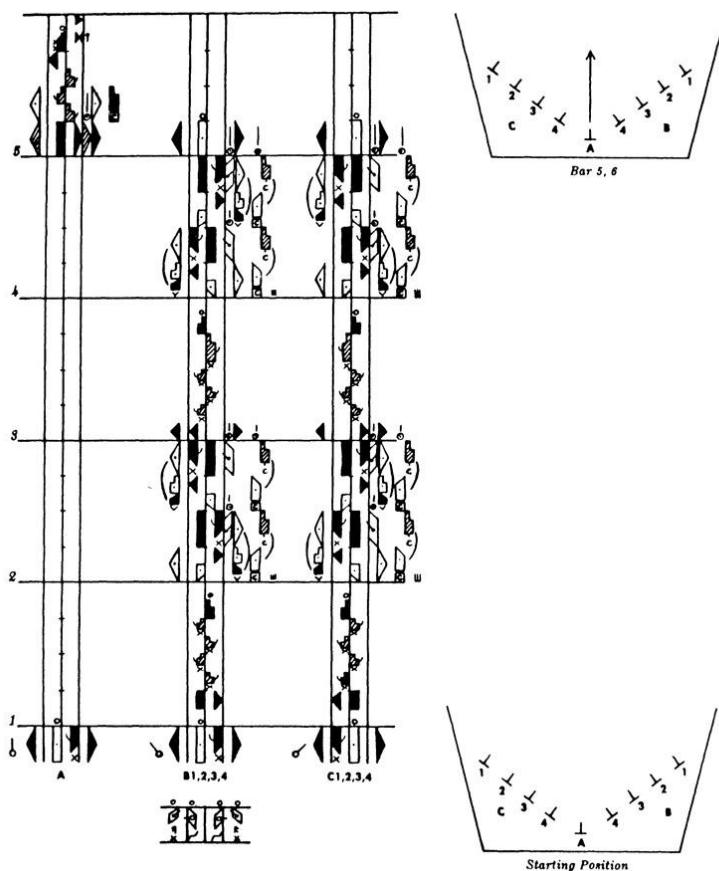
2

Exercices pour le cinégramme 2 Exercises for kinetogramm 2

The image shows a page of musical notation for a single instrument, likely a woodwind or brass instrument. It consists of six staves of music, each with a different key signature and time signature. The notation includes various markings such as grace notes, slurs, and dynamic changes indicated by symbols like crescendo and decrescendo arrows. The staves are separated by horizontal lines and some vertical bar lines.

Ex. 105

Ex. 106 shows a later score, a page from Balanchine's Dance of the Little Swans (Pas de Neuf), one of many ballets notated. Though Laban originated the system, from the start he gave credit to those who contributed to its early development. Since then many individuals have both enriched and strengthened the system, advancing its use.



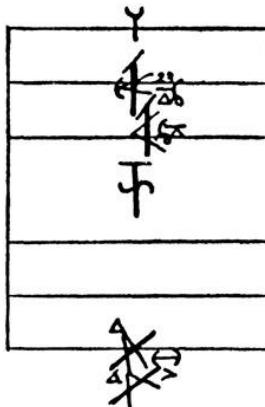
Ex. 106 Balanchine's Danee of the Little Swans

Morris System

Margaret Morris, a pioneer in a free style of dance, was very much self-taught and hence not moulded by any one school of dance. She also had a universal outlook on movement and developed a system designed to record movement of any kind. It was first published in 1928 in London as *The Notation of Movement*.

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

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



The position in Frontispiece
written in notation

LONDON
KEGAN PAUL, TRENCH, TRUBNER & Co., Ltd.
BROADWAY HOUSE, CARTER LANE, E.C.
1928

Ex. 107

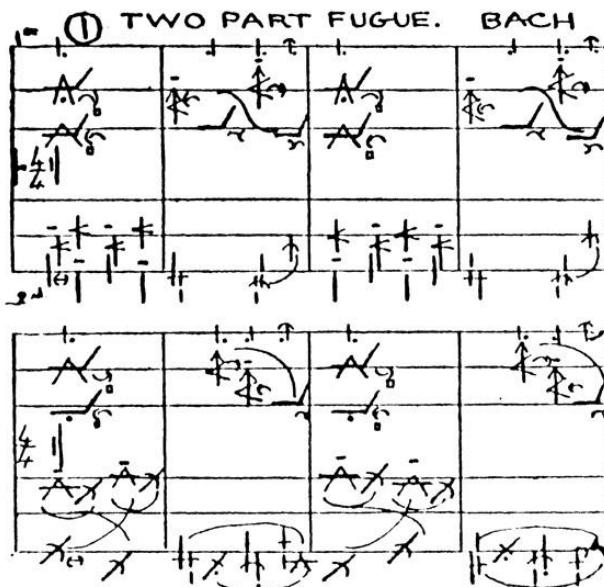
Morris was interested not only in theatrical dance and in teaching children, but also in the therapeutic side of dance, remedial work in which she combined her sense of movement

flow with her medical experience. Her system is totally body-centered, being based on an anatomical analysis of movement. It was taught at her school and used to record some of her choreographic works.



Ex. 108 Margaret Morris

Below are two examples of scores in the Morris system, the Two Part Fugue and the solo dance Gloxinia.



GLOXINIA

SOLO DANCE. MINUETTO GRIEG:

②

Ex. 109

Loring System

In 1955 Eugene Loring and D. J. Canna published a notation system called Kineseography.

K I N E S E O G R A P H Y

THE LORING SYSTEM OF DANCE NOTATION

by
D. J. Canna
and
Eugene Loring

Illustrations by James Raymond

THE ACADEMY PRESS
Publishers

Ex. 110

Loring began as a ballet dancer with a particular individual gift for choreography in a freer, more modern, vein. His understanding of contemporary dance was intuitive and he used it effectively without comprehending its basic motivation and the underlying reasons for its difference from ballet. Loring purposely avoided the study of other notation systems; although he knew of the Laban system, he preferred to work on his own, deeming his system to be faster to write. It seems clear that he was not influenced by other systems as his method is unique in several respects. Loring's system was used in his school and among his associates, but has not been used farther afield.

As we have already seen, Loring was not alone in avoiding study of other systems. Such study is very time-consuming; one's initial drive and energies can be dissipated through such an involved task. However, study of other systems is a wise move before publicly launching one's own new ideas.



Ex. 111 Eugene Loring

Below is the Opening March from Loring's famous ballet *Billy the Kid*. The notation is read from the top down, the heavy horizontal lines indicate bar lines, beats being marked by lighter horizontal lines. This staff represents one performer, the movements of the parts of the body being indicated within the columns while step direction is shown outside on the left.

Ex. 112 Excerpt from Billy the Kid

During the years Loring directed and choreographed for his Dance Players Company, he made meticulous charts of the entrances and exits of his performers, indicating how long each was on stage, all correlated to the music. It was therefore a comparatively short step subsequently to entertain the idea of indicating the dance movements as well.

Eshkol-Wachmann System

While Joseph Schillinger was doubtless the first to evolve a mathematical system for recording movement - a system which was never fully developed because of his early death, and of which his notes have only recently been published - it is the Eshkol-Wachmann system which serves the interests of those concerned with the reduction of movement to mathematical terms. The first book on the Eshkol-Wachmann system, entitled Movement Notation, was published in London in 1958.

MOVEMENT NOTATION

NOA ESHKOL
AND
ABRAHAM WACHMANN

*Diagrams and illustrations by
A. Wachmann and John Harries*

WEIDENFELD AND NICOLSON
7 CORK STREET LONDON W1

Ex. 113

Noa Eshkol met the Laban system when she was studying in London with Sigurd Leeder during the early 1950s. She found his personal presentation of Laban's system to be too free and unformulated for her scientific mind. Eshkol's immediate

purpose for evolving a movement notation system was to provide herself with the means of composing movement sequences in terms of degrees of movement, that is, motion of a particular kind, not only description of destination. She and her associate, architect Abraham Wachmann, dissected movement impersonally and analyzed the basic motions which the various limbs and torso are capable of, as being circular in nature, thus providing indications of rotatory, planar and conical movements. The system has been developed to record gestural movements in those terms and, in addition, there are indications for weight placement and progression, for front and other such practical considerations.



Ex. 114 Noa Eshkol and Abraham Wachmann

In the rest of this presentation the Eshkol-Wachmann system will be referred to simply as the 'Eshkol' system, with no disrespect to Mr. Wachmann intended.

Eshkol aimed for a movement description separate from any style or 'school'. The body is seen as a series of connected 'rods' moving in space. Her concern has been anatomical, or, as she prefers to stress, geometrical in the sense of dealing with the human body as a part of space and the limbs as spatial entities. The system has been used to record forms of dance such as folk and ballet to reveal the inner content and structure in her terms, in recording movement she began by writing all basic facts regarding units of analysis, then, as practical application indicated what economies could be made, she incorporated conventions and abbreviations. An example is use of the letter 'S' for a step instead of 'spelling out' the actions of thigh, lower leg and foot. Despite such modifications the system remains basically the same.

In teaching and choreographing she uses the notation as an integral part, thus breaking away from established dance conventions and finding new ways of composing. Her choreographies have been likened to use of the body as an 'auto-mobile' in that movement is produced without the expected accompanying expression. For Eshkol the basic movement itself gives the expression: she is not concerned with theatrical aspects of dance.

R. Fingers 3-5 (\uparrow)
R. Fingers 1-2 (\downarrow)

... Four ...

I A.B.C

M 144-152

L.	\textcircled{O} \uparrow	Forearm	\textcircled{P} \textcircled{P}								
	$\hat{\textcircled{O}}$	Arm	\textcircled{P}								
R.	\textcircled{O} \uparrow	Forearm				\uparrow_3		R			
	$\hat{\textcircled{O}}$	Arm			$\hat{\textcircled{3}}$ 8					$(\textcircled{3})$	
		Upper Body				$(\textcircled{6}) \downarrow 1$			$(\textcircled{5}) \uparrow 1$		
R.		Thigh	$\downarrow (\textcircled{1}) S^M$			$(\textcircled{3}) S^*$			\uparrow	$(\textcircled{3}) S^*$	
		[L Leg]									
		Foot	\textcircled{T}	\equiv	\textcircled{T}	$=$	\textcircled{T}	$=$	\textcircled{T}	$=$	\textcircled{T}
L.		Thigh	$\downarrow \uparrow$	$(\textcircled{2}) S$		$\downarrow (\textcircled{6})$		$(\textcircled{4}) S$		$(\textcircled{2}) S$	
		[L Leg]									
		Foot	\textcircled{T}	$\frac{3}{4} \equiv$		\textcircled{T}		$=$	\textcircled{T}	$=$	
		Weight		$\textcircled{(2)}$ $(=)$	$[4]$	$[6]$	$[o]$		$[6]$	$[4]$	
		Front	(O)	$(\textcircled{1})$	$(\textcircled{6})$	(5)	(4)		(5)	(6)	

Ex. 115 Excerpt from Diminishing Series Dance Suite by Noa Eshkol

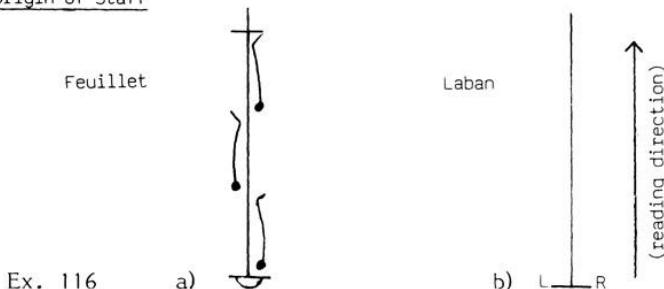
Abstract Symbol Systems: Indication of Body

Laban: Indication of Body

Laban developed a vertical staff to represent the body. This vertical staff has seemed to many people to be an odd and unnecessary innovation since both music notation and verbal writing (for the most part) progress horizontally across the page.

It is worth a brief investigation to see why Laban chose a vertical staff, and why, indeed, the vertical staff has proved to be a practical feature of his system. First, having studied previous systems, Laban was much impressed by the practicality of the Feuillet system, in particular Feuillet's use of a center line dividing right and left and also the marking of ticks on this center line to indicate the music measures, Ex. 116a. The present Laban staff includes the vertical line which represents both time passing by and the center line of the body, dividing right and left, Ex. b).

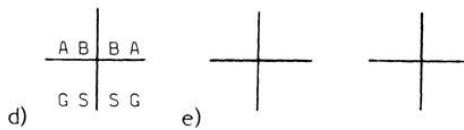
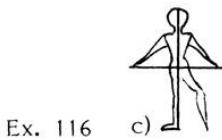
Laban - Origin of Staff



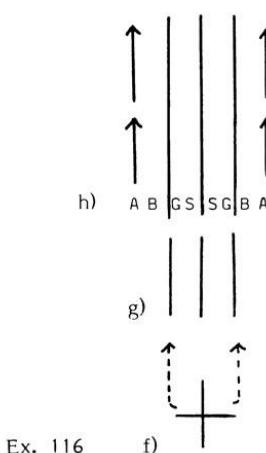
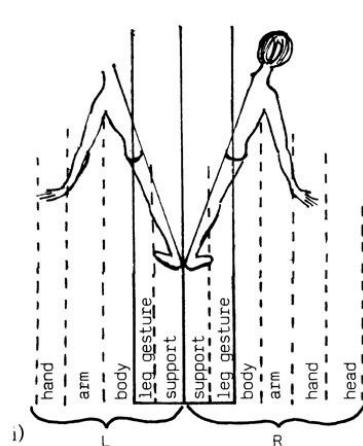
However, Laban's earlier representation of the body was a cross, c) and d), the horizontal line of the cross being the dividing line between the lower part of the body (the legs) and the upper part of the body (torso and arms). In Ex. d) the cross is marked with 'S' and 'G' where supports and gestures were written, right and left, and with 'B' and 'A' where body and arm movements were written. These crosses followed one another on the page in a horizontal progression, 116e. Laban soon realized that such a progression only produced disconnected images; no continuity of symbols to indicate continuity of movement was possible.

Laban - Use of Crosses

reading direction →



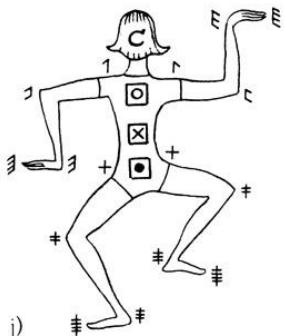
Laban gives credit to Kurt Jooss for suggesting that the dividing line between the lower and upper parts of the body should be placed on either side of the vertical center line, as in Exs. f) and g). These three lines running vertically up the page would provide columns in which actions for parts of the body could be written simultaneously and consecutively, thus showing unbroken continuity of movement, shown in Ex. h). Starting at the bottom of the page, the dancer sees the three-line staff as being himself in the upright vertical situation.

Laban - Transition from Crossto Vertical StaffLaban - Staff

Ex. 116i shows the full staff, the basic three lines, plus dotted lines indicating the columns. The dotted lines are given here only for explanatory purposes. Supports, i.e. parts which carry the weight of the body, are written in the columns next to the center line; leg gestures, that is, movements of the leg free of weight-bearing, are written in the next space out on either side. Indications for movements of the torso are written immediately outside the three-line staff, while arm gestures are written in the next column out. Next to the arms, right and left, come columns for the hands. Beyond this on the right side of the staff are written head movements. The staff is symmetrical in representing the body, therefore notation of symmetrical movements produces symmetrical patterns on the page. The columns provided by the three-line staff are for the main parts of the body. When specific parts of the limbs are used, such as the shoulder, lower arm, fingers, etc., signs for these parts are indicated, being placed in the appropriate column.

Each part of the body has its own particular sign which can be used out of context, without reliance on placement on the staff.

Laban - Specific Parts of the Body



- k) areas , , , etc.

l) limbs , , , etc.

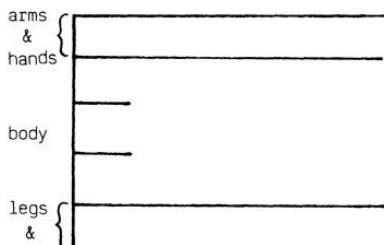
m) joints , , , , etc.
, , , 

Morris: Indication of Body

The Morris system provides a four-line horizontal staff which is arranged with two lines above for the head, neck and arms; two lines below for legs and feet, and imagined lines in between for indication of hands and torso, Ex. 117a. (Note that originally it was a six-line staff with three lines at top and three below.) Right and left sides the body are shown by placing the movement indication on a line the right side, below a line for the left. Ex. b) and c) indicate steps on the right and then the left foot. Explanation of direction will be given next.

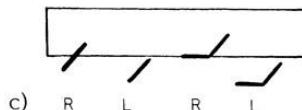
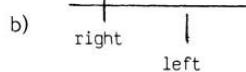
Morris - Staff

head & neck



Ex. 117

a)

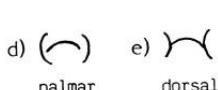


c)

No specific indications for the various parts of the body exist; instead Morris provides signs for all possible motions of each part. From the sign itself and its placement on the staff one knows which subdivision of the body is involved and the action it is to do. For instance, d) and e) are indications for wrist flexion. A slight modification in a sign shows the difference between a bending forward of the chest, f), g) and h), or bending forward of the torso, i), j) and k).

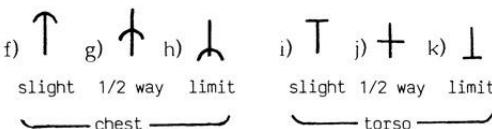
Morris - Movements of Parts of the Body

Wrist Flexion



Ex. 117

Degrees of Bending Forward

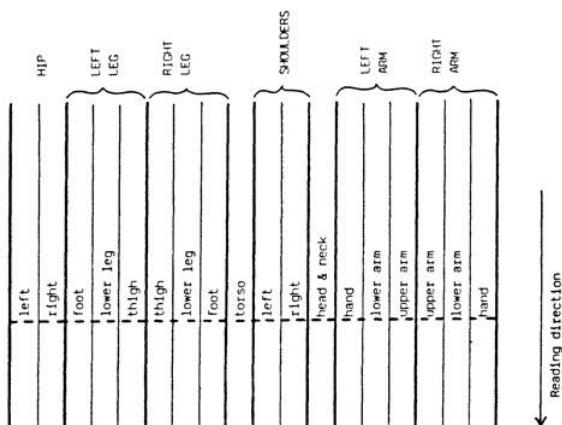


Loring: Indication of Body

Loring provides a vertical staff but one that is read from the top down; his is the only system so far to progress in this

direction. His staff, Ex. 118, consists of heavier and lighter vertical lines providing columns for all the segments of the body, each minor part having its own column. At the left are columns for the hip, left and right; then come columns for the left foot, lower leg and thigh; then for the right thigh, lower leg and foot. The next column is for the torso, followed by the left and right shoulder columns. Head and neck share a column, then columns are provided for the left hand, lower arm and upper arm, followed by the right upper arm, lower arm and hand. Observe that the sections of the staff for arms and legs are symmetrically arranged. Such a complete staff means that no pre-signs are required for movements of lower arm, hand, etc., as in the Laban system.

Loring - Staff



Ex. 118

Eshkol: Indication of Body

Like the Loring system, Eshkol also provides a complete staff with spaces for each body segment, thereby dispensing with individual signs for parts of the body. However, the Eshkol staff runs horizontally. The complete staff, when used, sets

forth separate sections as shown in Ex. 119. Orientation to the established front of the room is indicated in the space marked 'Front'. When needed the 'Weight' space is used for specific indications regarding support or progression in the room. For the parts of the body it should be noticed that in each section the 'heavy' (base) limb is given first with the 'light' limb following. Use of the staff is flexible in that generally only those sections needed are used, each being clearly identified at the start, e.g. 'L Arm', 'R Hand', etc. When a limb moves as a whole only the movement of the 'heavy' part (e.g. upper arm for the whole arm) need be written, thus facilitating reading.

Eshkol - Staff

20			HAND					
19	LEFT		FOREARM					
18			UPPER ARM					
17			SHOULDER					
16			HAND					
15	RIGHT		FOREARM					
14			UPPER ARM					
13			SHOULDER					
12	HEAD							
11	NECK							
10	TORSO (upper part)							
9	PELVIS							
8			THIGH					
7	RIGHT		LOWER LEG					
6			FOOT					
5			THIGH					
4	LEFT		LOWER LEG					
3			FOOT					
2	WEIGHT							
1	FRONT							

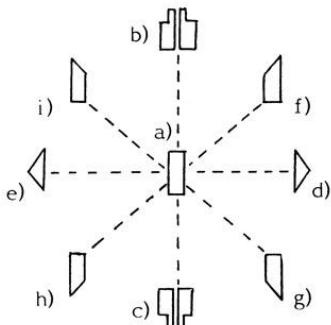
Ex. 119

→ (Reading Direction) →

Abstract Symbol Systems: Indication of Direction, Level

Laban: Direction, Level

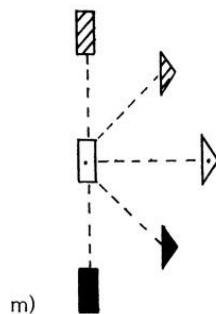
In the Laban system direction is indicated by the shape of the symbols. The basic symbol, a rectangle, represents the vertical line, and hence the center of direction, Ex. 120a. This rectangle is modified to provide pointers which indicate forward, b); backward, c); and into triangles to indicate right and left sides, d) and e). The diagonal directions between forward and sideward, and backward and sideward, are indicated by the basic rectangle coming diagonally to a point, as in Exs. f), g), h) and 1). These indications for the main directions around center are modified to show level - upward, downward or horizontal -by being shaded. Black denotes downward, low level directions, Ex. j); a dot indicates middle or horizontal level directions, Ex. k), and stripes indicate upward or high level directions, Ex. 1). Thus one symbol indicates both direction and level. Ex. 120m shows the main levels in the right sideward direction. The symbol at the bottom states vertically straight down, then comes side low, side middle, and side high, ending at the top with vertically straight up. The same range of levels is applied to forward, backward and to the diagonal directions. Indication of intermediate points is based on these principal directions.

Laban - Direction

Ex. 120

Level

- i)
- = high
(up)
- k)
- = middle
(horizontal)
- j)
- = low
(down)



m)

Morris: Direction, Level

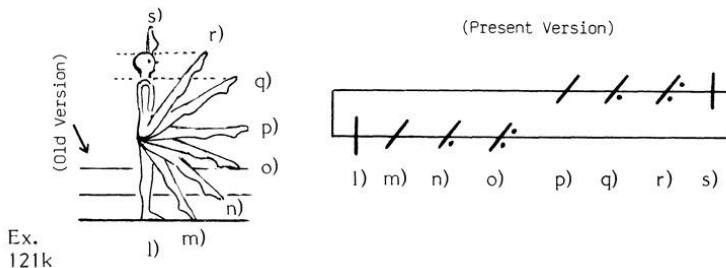
Morris indicates direction through simple strokes. A vertical stroke, Ex. 121a, means 'place', the perpendicular. A stroke slanting toward the right indicates forward, b). This stroke was chosen as being easy for the hand to write since it slants into the usual writing direction and forward is the direction predominantly used. Backward is shown by a horizontal stroke, c). Sideward is a combination of the signs for forward and backward, d). It is understood to be the open side direction unless a little curve is added to indicate crossing. Ex. e) shows crossing in front, f) crossing behind. The diagonal directions are shown by adding an arrowhead to the forward or backward signs, as in g) - j).

Morris - Direction

- a) | = perpendicular (place)
- b) / = forward
- c) — = backward
- Diagonal directions: g) ↘
Ex. 121 left forward
- d) _\ = sideward (open side)
- e) _\ = sideward (crossed in front)
- f) _\ = sideward (crossed behind)
- h) /↗ right forward
- i) → right backward
- j) ← left backward

In her original book Morris drew the imagined figure as being placed on a six-line staff, 121k, to show the different levels for leg and arm gestures. Placement of a direction sign on a higher line meant a higher level. For the legs these levels were: touching the floor, level with the calf, just above knee level, hip level, shoulder level, and at the level of the top of the head, before arriving vertically up. Only two lines are now used instead of three, dots being added to show levels.

Morris - Level



Ex. 1) shows the indication of perpendicular, that is, straight down for the leg. Ex. m) indicates forward at the lowest level, still touching the ground. Just off the ground is indicated by

adding a dot, n), and two dots show the leg slightly above a 45° angle, o). For a horizontal leg gesture the sign is placed on the next line, p). Dots are then added, q) and r), to show increasing height, until straight up is reached, shown by the vertical line, s). Levels for arms are shown in the same manner, but with the symbols placed on the upper two lines of the staff.

Loring: Direction, Level

Loring's analysis of movement is very individual; in some respects it is unique among systems of movement notation. At this point we are concerned with direction and level, but must touch briefly on his other ideas. Loring begins with a vertical line representing the number 1, the symbol of unity, Ex. 122a. This stroke is crossed by a horizontal line producing four areas - two above and two below the horizontal line, b). The lower left area is for indication of direction, the lower right for degree, the upper left for indication of movements given the heading of 'emotion', and the upper right for those designated 'special'. These will be investigated later.

Loring - Movement Analysis



To indicate direction Loring attaches short horizontal strokes at the lower left of the vertical line. One stroke at the bottom indicates forward, Ex. c); two strokes indicate backward, d), and three the open sideward direction, e). When a crossed sideward direction is needed, a small stroke slanting to the

right is added to the sideward sign to show the right side crossing the plumb line, f), and a stroke slanting to the left to show left side crossing, g). For diagonal directions the side sign is modified by joining two of the lines. Ex. h) shows the forward open diagonal and i) the backward open diagonal. A crossing diagonal direction is shown by addition of the crossing sign.

Loring - Direction

- c)  = forward
e)  = open side
d)  = backward
Ex. 122
- f)  = right side crossing
h)  = forward open diagonal
g)  = left side crossing
i)  = backward open diagonal

Level for directions comes under the heading of degree and is shown by short horizontal strokes placed on the lower right side of the vertical line - one stroke for 1st degree, j); two strokes for 2nd degree, k); a mid-stroke for 3rd degree, the right angle, l); two lower strokes joined for 4th degree, m); two center strokes for 5th degree, n); and two center strokes joined for 6th degree, the maximum, o).

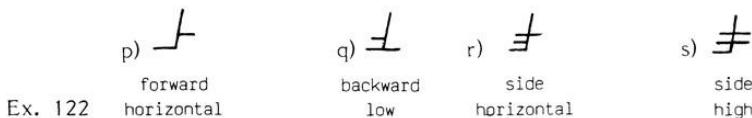
Loring - Level (Degrees)

- j)  1st
k)  2nd
l)  3rd
m)  4th
n)  5th
o)  6th
Ex. 122 (right angle) (maximum)

Direction and degree are combined to show forward horizontal, p); backward low, q); the open side high, r); and so on. Whether the side direction is to the right or left is known from its placement in the right or left body column.

This is also true of the diagonal directions which cannot be specified out of context. As mentioned before, side and diagonal directions are always the open direction unless the indication for crossing is added.

Loring - Direction and Level



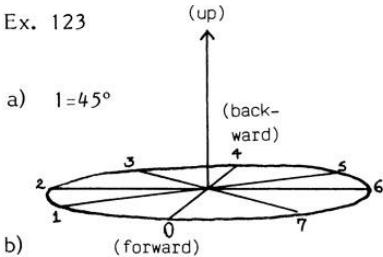
Eshkol: Direction, Level

The Eshkol system is based on the premise that all movement is circular in nature because of the structure of the joints of the body. Therefore movement can be described in terms of degrees of rotation around an axis, or of movement on a circular line in a positive or negative direction. Any position, that is, any location of a limb in relation to the body, can be established by determining its horizontal and vertical coordinates. Of 360 degrees not each degree is needed to record movement, a larger basic unit is taken, usually $1=45^\circ$, the chosen unit being stated at the beginning of the score, Ex. 123a. Note that 45° is the unit generally used by most systems. The ability to change this basic unit is one of the flexible aspects of the Eshkol-Wachmann system. With $1=45^\circ$ established, Ex. b) shows the range for coordinate 'Y', the horizontal circle of directions which starts with zero representing forward. Counting clockwise, 1 represents the right forward diagonal direction; 2, the right side direction; 3, the right back diagonal; 4, backward; 5, the left backward

diagonal; 6, the left sideward direction; and 7, the left forward diagonal.

Eshkol - Direction

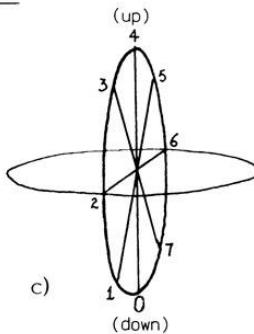
Ex. 123



b)

Coordinate 'Y'
Horizontal Plane of the
System of Reference

Level



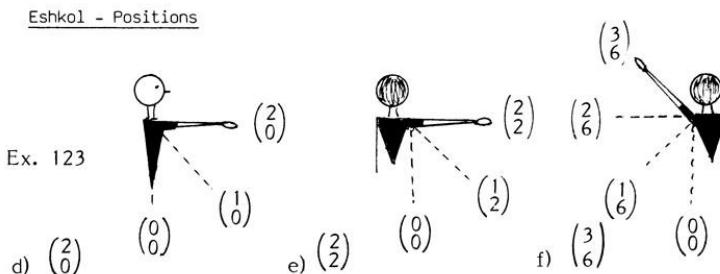
Coordinate 'X'
A Vertical Plane
(one of the eight possibilities)

The degree on coordinate 'X' indicates level, 123c. Zero is straight down. Counting upward (i.e. numbers rising in value) is understood to indicate a rise in level: 1 signifies low (slanting downward); 2 is horizontal; 3 shows high level (slanting upward); 4 is straight up.

Indication of Position

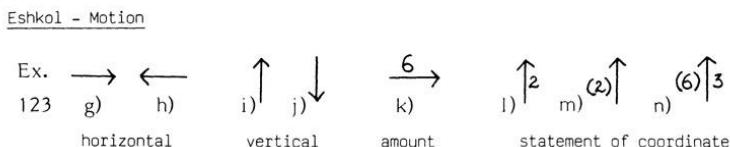
Any directional point can be written by stating two numbers, one above the other. Coordinate 'Y' (location in the horizontal circle of directions) is written below and the level established in coordinate 'X' is written above. The figures 'zero-two' in Ex. 123d state two units up in the zero (forward) plane, i.e. forward horizontal; 'two-two', as in Ex. e), states two units clockwise and two units up, i.e. right side horizontal; 'six-three', Ex. f), states six units clockwise and

three units up, i.e. left side high, and so on. Numbers placed in curved brackets indicate a position in relation to the Absolute systems of reference (the constant room directions). Square brackets are used for directions relating to the Body system of reference.



Indication of Motion

Movement in the horizontal plane is shown by horizontal arrows - to the right for clockwise, 123g, to the left for counterclockwise, h). Movement in the vertical plane is shown by vertical arrows, the 'positive' sense, i), being when the 'X' numbers are increasing in value; the 'negative' sense, j), being when the 'X' numbers are diminishing, e.g. 6 5 4 3, in the coordinate indicated.



The amount of movement to be performed is shown by a number without brackets. Ex. 123k states six units circling clockwise, that is, horizontally in the 'positive' sense. Ex. 1)

shows two units of movement vertically in the ‘positive’ sense. In order to know in which plane the movement takes place, the number for the ‘Y’ coordinate is indicated in parentheses. Ex. m) shows positive movement in ‘Y’ coordinate (2), i.e. the right side plane. Ex. n) states three units of positive movement in ‘Y’ coordinate (6), i.e. the left side plane.

Abstract Symbol Systems: Timing

Laban: Timing

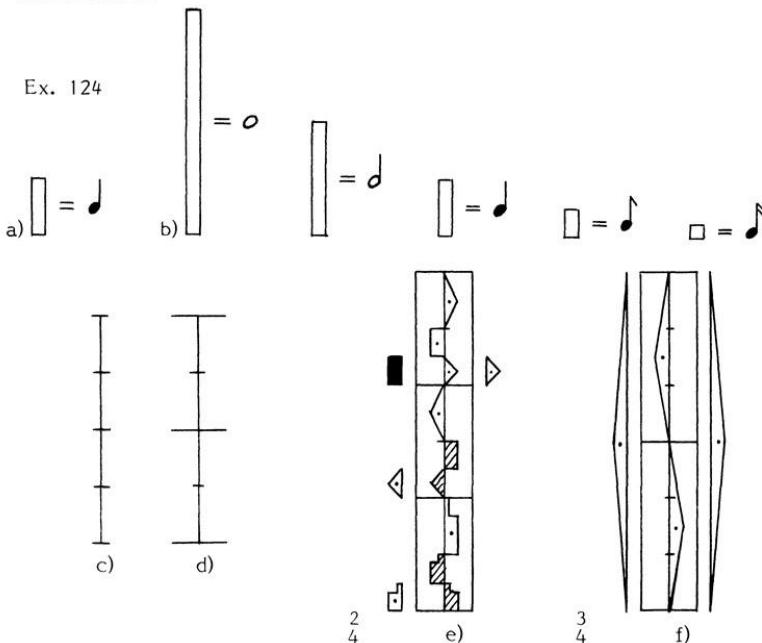
In the Laban system timing is indicated by the length of the movement symbols. A long symbol indicates a slow, sustained movement of long duration; a short symbol indicates a quick, sudden movement of brief duration. For measured (metered) time a unit of length is chosen, Ex. 12 ζ fa. This unit is kept consistent and provides a basis for the appropriate lengths for time values, Ex. b).

The center line of the staff is marked off according to the chosen length into regular beats through the use of small horizontal ticks, c). These beats are then grouped into measures by horizontal bar lines according to the meter being used. Ex. d) shows two measures of two beats, i.e. 2/ ζ f meter. Ex. e) shows three measures of two beats each, while f) shows two measures of three beats each. Because length indicates duration, time patterns are easy to see, fast or slow movements being immediately evident. Ex. e) illustrates fast footwork with sudden arm movements, and Ex. f) indicates slow, sustained footwork with even slower simultaneous arm

movements. If timing for the left arm should require a delayed start, slightly later than for the right arm, the left arm symbol would start a fraction later.

Laban - Timing

Ex. 124



Morris: Timing

In the Morris system the staff is derived by vertical bar; lines between which the beats are separated by dots, the dots indicating the ‘and’ counts. Movement indications are placed in the applicable spaces, or above the dots, as need be. Counts or music notes may also be written above the staff, as in Ex. 125a.

Morris - Timing

		\downarrow	\downarrow	1	2	3
$\frac{3}{4}$		

Ex. 125a

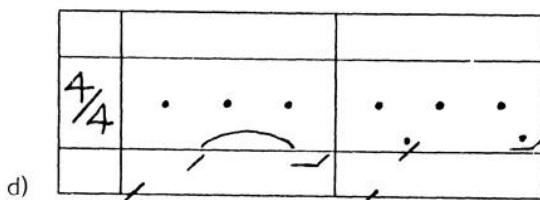
A staccato movement is shown by placing a dot over the symbol in Ex. 125b. The duration of a slow movement is indicated by a which covers the length of time the stated movement is to take, 125c.

Ex. 125 b)  = staccato c)  = sustained

In 123d, a step forward on the right foot on count 1 is followed by a slow forward gesture of the left leg which, taking two counts, ends to the side on count 4. In the next measure a step to the side on the left foot on count 1 is followed by a staccato forward gesture of the right leg on count 2, and then a staccato sideward gesture on count 4.

Morris - Timing

Ex. 125

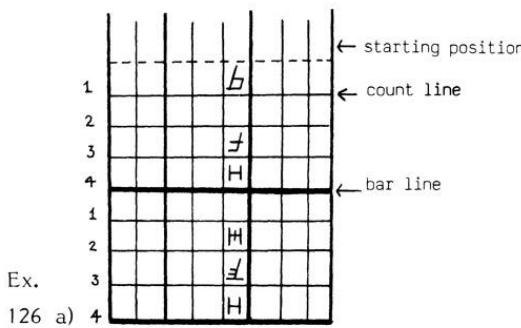


It is interesting to note that in her original book Morris gives signs for breathing, cartwheels, finger and facial movements, yet gives only rudimentary indications of timing. Despite having an unballistic approach to movement, she seems to think in terms of position (destination) rather than of movement.

Loring: Timing

The Loring staff is marked off into units of time by use of horizontal lines - heavier ones for bar lines and lighter ones for counts. The starting position is written at the top above a dotted line. As mentioned before, the staff is to be read downward. A movement indication written in a space between count lines indicates the end of that action. An empty space indicates the beginning of the next movement which is concluded at the point where that movement is written, i.e. the symbol indicates destination.

Loring - Timing



b) H = hold

c) \cancel{H} = cancel hold

d)

← (i)
← (ii)
← (i)
← (ii)

(i) = up beat

(ii) = down beat

In Ex. 126a the left leg is raised forward high on count 1. It is then carried to backward horizontal on count 2, arriving there on count 3. It is understood that the path of the leg is via down. The letter 'H', which appears next on count 4, indicates 'hold', as shown in b). Thus the position arrived at on count 3 remains in effect until cancelled by a stroke across the center bar of the 'H', as indicated in Ex. c). This cancellation occurs on count 2 of the second measure showing that at this point the leg moves to side low, arriving on count 3; on count 4 it again holds. Slow, sustained movements are clearly explained but in his book Loring did not provide for fast actions which involve subdivisions of a beat.

Eshkol: Timing

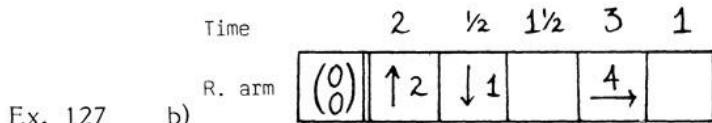
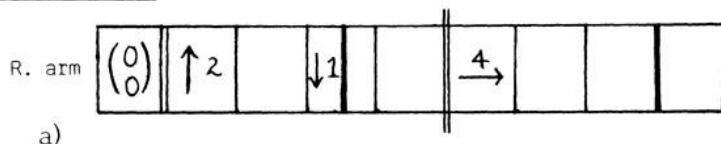
In the Eshkol system the horizontal staff is marked off with vertical lines indicating units of time. As a rule these are spaced equidistantly but need not be so if the notation of a movement requires more space. In the sequence of Ex. 127a the position for the right arm preceding the double vertical

line is a starting position. The movement takes the time of the unit in which it is written as well as that of any additional blank units which follow until a heavy vertical stroke marks the termination of the duration or another action is written. This heavy line may also be written as a double line for clarity. Basically measures are not used in the system, however, when necessary, double vertical lines extending slightly above the staff can be used. Ex. 127a indicates two measures of 4/4.

The first action in Ex. 127a, two units of positive vertical movement, takes two beats. This is followed by a reverse movement of one unit taking only half a beat, the thick vertical line indicating the conclusion of that movement. No further movement occurs until the second measure in which four units of clockwise circling takes three beats, the fourth beat being held.

For many purposes it is enough to indicate above each time unit the number of beats involved, as illustrated in 127b. When many parts are moving at the same time such telescoping is not practical and the timing for each movement will be fully drafted.

Eshkol - Timing



Abstract Symbol Systems: Bending

Analysis of Bending - Further Clarification

The word ‘bending’ is used very freely in dance. Flexion may be in one joint, or, as in the spine or hand, in several joints. Flexion of joint produces a change in direction for the limb segment distal that joint. ‘Bending’ the whole torso as a unit into, let us say, forward direction, is possible because of flexibility in the hip joint(s). This same hip flexibility can also produce a leg kick. Inclining torso forward may be accomplished with a straight back, or with the torso rounded, i.e. the torso itself may ‘bend’, that is, there may be forward flexion in the spinal vertebrae. Such rounding of the spine may be caused through contracting or through folding the torso as whole. When a contraction takes place, the extremity of the torso other part) retains the same direction in space, the distance merely being ‘shortened’ (i.e. contracted). In a folding action, as we saw before, the free end of the body part curves in toward the base on arc; as a result the spatial relationship between extremities (the end and the base) has changed.

Placement of two limb segments in different directions will result in some degree of flexion, though the movement is not directly described as one of flexing.

Laban: Bending

The Laban system is the only one which provides the concept of the whole arm or leg being treated as a unit from shoulder to hand (or hip to foot) in establishing direction for flexed

limbs. Thus, in a contraction of the arm or leg as a whole, the previously established line of direction is retained. Most systems interpret ‘the arm’ as being the upper arm, and ‘bending the arm’ as meaning flexing the elbow joint. Equally, ‘the leg’ is the thigh, and ‘bending the leg’ is flexion in the knee joint. Such descriptions can also be given in Labanotation. The Laban system, however, makes a clear distinction between contracting and folding as forms of flexion (bending).

Ex. 128a is the sign for any form of flexion. Note: use of the ad lib. sign of 128b to state ‘any’. The sign of a) indicates a moderate degree of flexion, while by doubling the ‘x’ as in c) we show a marked amount of flexion. The form of flexion called contraction is indicated by the sign ‘X’, for which six degrees between normal distance and total contraction are provided, dots being added to indicate degrees. The six-degree scale, d), is most frequently used though a scale of eight degrees also exists. Parts of the body, notably the spine, can contract over different surfaces; the surface involved is indicated by adding a stroke. Ex. 128e shows contraction over the front surface; f) over the right side; g) over the back, and so on, the line (stroke) representing the person, so to speak.

Laban - Flexion

Contraction Any form: a)  b)  c) 

Ex. 128 Degrees: d)      
 1° 2° 3° 4° 5° 6°

Physical direction: e)  f)  g)  h)  i)  j)  etc.

Folding usually involves only one joint, therefore, to show folding, the 'X' sign is cut in half. Ex. k) states folding over the front surface of the body part, for which the six degrees of folding are shown. For some joints folding can also be over different surfaces of that part, hence the need to show 'over the right side', Ex. 1); 'over the back', m); 'over the left side', n). The four diagonal directions for folding are shown in Exs. o) - r).

Laban - Flexion	
<u>Folding</u>	Degrees:
	k)
	1°
	m)
	2°
	n)
	3°
	o)
	4°
	p)
	5°
	q)
	6°

Ex. 128	Physical direction:
	k)
	l)
	m)
	n)
	o)
	p)
	q)
	r)

Morris: Bending

A stroke placed across a direction symbol indicates flexion of the center joint of the limb. The 1st degree, relaxed, is a curved stroke, Ex. 129a; 2nd degree, a slight bend, is a curved line, b); 3rd degree, a right angle, is shown by a wide 'V' c); 4th degree, an acute angle, is a narrow 'V', d); and total flexion, shown by joining the ends of the 'V', is as in e). These signs are used with the appropriate direction sign.

Morris - Flexion	
Degrees:	
Ex. 129	a)
	b)
	c)
	d)
	e)

(sideward direction)

Loring: Bending



Loring puts flexion in the category of 'degree' and writes it in the lower right area of the basic 'cross'. Ex. 130a shows the six degrees of flexion. For gestures these signs are placed in the appropriate limb column. As in Stepanov's system, direction is shown only for the thigh and upper arm; movements of the lower arm and leg and of hands and feet are not given directional description but are stated as degrees of flexion. Flexion of legs while supporting is shown by the level of the hips from the floor. The first degree is a deep knee bend; 2nd degree, a demi-plié; 3rd, normal standing; while 4th, 5th and 6th degrees for the hips show degrees of rising into the air. Ex. 130b indicates flexion (contraction) of the torso. Loring's analysis places such contraction under the heading of 'Emotion', it being seen as an introvert movement.



Ex. torso
130b contraction

Eshkol: Bending

Bending is shown by numerical units of the appropriate movement or by indicating the new position reached. In Ex. 131a the right arm starts forward horizontal and then contracts to 90°, the description being as follows: the upper arm moves 1 unit clockwise while the forearm (f) moves 2 units counterclockwise, Ex. b). At c) the whole arm moves side horizontal, i.e. 2 units for the forearm and 1 unit for the upper arm. A 4-unit counterclockwise movement for the forearm, d), results in total folding of the elbow, the hand ending near the shoulder.

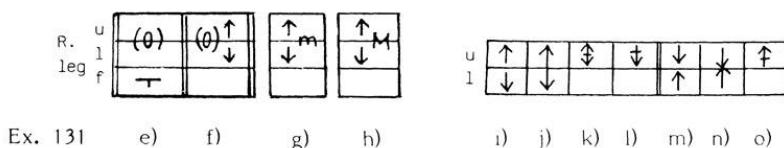
Exs. 131e - 1) show bending the leg while supporting. In the starting position the 'T' for touch indicates the foot is on the floor. At f) bending in coordinate (0) is shown; from its vertical situation the lower leg (ankle to knee) is 'sinking', i.e. a negative vertical movement, shown by the downward pointing arrow. At the same time the thigh (judged from knee to hip) is 'rising', i.e. a positive vertical movement, shown by the upward pointing arrow. The amount of bend can be shown in units or by 'm' for minimum or 'M' for maximum, written next to the appropriate movement, g) and h).

Eshkol - Bending

R. f arm u	(2)	←2	2→	←4
	(0)	1→	1→	

Ex. 131 a) b) c) d)

The above description has now been simplified as follows: arrows in the upper and lower leg spaces of Ex. i) were joined, as in j). It was then found sufficient to write the sign only in the upper space, adding a short stroke to represent the line separating the two spaces, Ex. k). Experiments in describing such bending proved that one arrow sufficed, as in l). Stretching followed a similar simplification, Exs. m) - o).

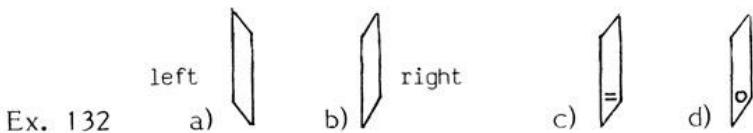


Abstract Symbol Systems: Rotating

Laban: Rotating

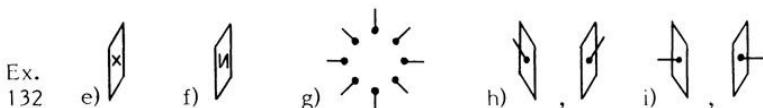
The basic signs for turning are the same, whether it be the body-as-a-whole rotating around its vertical axis or a limb around its longitudinal axis. Ex. 132a shows turning left (counterclockwise) and b) turning right (clockwise). Turning can take two forms: that of a body part rotating as a unit or that of a twist within a body part. Rotation as a unit can be designated by use of an equal sign within the rotation symbol, c); that of a twist can be shown by use of a hold sign at the base of the rotation symbol, d). For a twist, the hold sign indicates that one end of the body part (torso or limb) is held (retained) and so not free to rotate as far as the extremity, the free end. Designation of the form is unnecessary for those body parts which can only twist (e.g. lower arm) or only turn as a unit (e.g. the head).

Laban - Rotating, Twisting



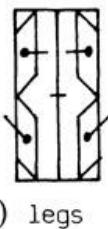
Degree of rotation can be described by designating either motion, change from the previous state, or destination, the point at which the rotation ends. Motion can be expressed in general terms, such as 'a little', e), or 'a lot', f). Degrees of change from the previous state are shown by use of black pins, g); the pin indicating the amount of turn clockwise or counterclockwise. Ex. h) shows 1/8 turns, left and right; i) shows 1/4 turns, left and right.

Laban - Degree of Turning; Motion

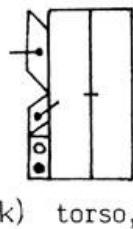


Placement of the turn sign in the appropriate column on the staff shows which part of the body is turning (rotating, twisting). In j) the symbols placed in the leg gesture columns indicate rotations of the whole leg; in k) the whole torso twists are shown by use of the whole torso sign on the left of the staff; rotation of the head is indicated by the sign 'C' outside on the right. Ex. 1) shows outward then inward twisting of the arms.

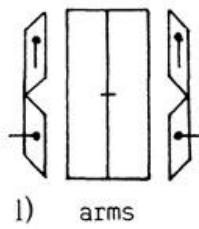
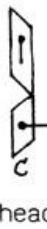
Ex.
132



j) legs



k) torso,
head

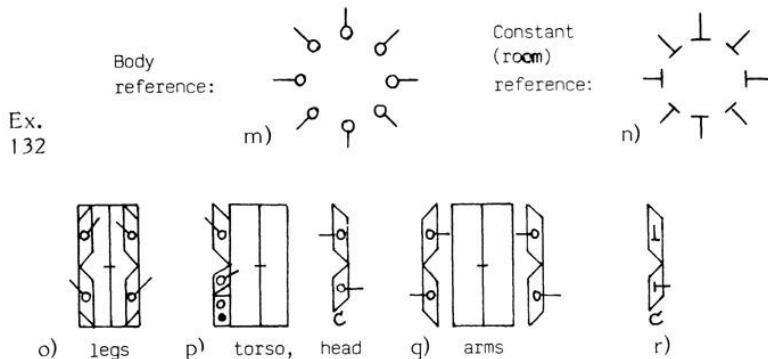


l) arms

Statement of Destination

As stated, the black pins indicate motion, the degree of change from a previous situation. A destinational description for rotation is often more appropriate. Such description may be either in terms of the degree of rotation away from the normal, 'standard' body alignment, shown by use of white pins, m), placed within the turn sign, or by use of the constant room directions into which the front of the body part faces at the end of the rotation, shown by straight pins, n), ('tacks'). For the legs degree of rotation is judged from the parallel state, feet facing forward; thus o) states that the legs first rotate 1/8 outward from the parallel state and then 1/8 inward. Ex. p) shows the torso twisting 1/8 to the right from its untwisted state and then 1/8 left from the untwisted state (zero point). The head rotates 1/4 right from normal, then 1/4 left from the zero point. In Ex. q) the arms twist 1/4 outward from the untwisted state and then 1/4 inward from the zero point. Note: if all the examples of 132j - 1) started in the normal, untwisted state, the results would be the same as o) - q). Ex. 132r shows typical use of the constant room direction description, the head being shown to turn right to face stage right, then left to face the audience.

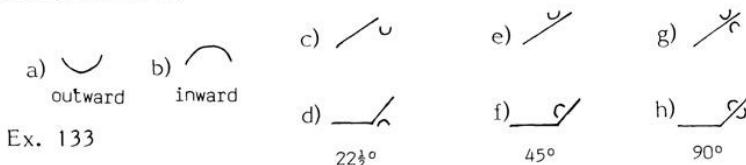
Laban - Destination of Turning



Morris: Rotating

For Morris the sign for rotation of parts of the body is a small upward or downward curving bow. Ex. 133a means outward rotation, b) inward. The appropriate bow is placed after the direction sign to show slight rotation. In c) the forward movement includes slight outward rotation; in d) the sideward movement includes slight inward rotation. When the rotation is more extreme the sign is attached at the end of the direction symbol, as in e) for outward rotation and f) for inward. The limit, 90° , is shown as 133g for outward and h) for inward.

Morris - Rotating



Loring: Rotating

For Loring rotations of the pelvis, chest and head come under the heading of 'Special' and are written on the upper right side of the basic vertical stroke. Ex. 134a shows rotation to the right and b) to the left. However, rotations of the leg and foot and of the arm and hand come under the heading of 'Emotion', outward being written as c), and inward as d). Rotations of the pelvis on a lateral axis (tucked under or sway back) also come under 'Emotion', since these actions are considered to be introvert and extrovert in expression. So also are such non-rotary motions as movements of the shoulders up or down, as well as the head looking up or down and concave or convex movements of the torso.

Loring - Rotating

'Special'	a)		b)		'Emotion'	c)		d)		
Category:		right		left	Category:		out		in	
Ex. 134	(for pelvis, chest, head)					(for leg, foot, arm, hand)				

Eshkol: Rotating

Rotations of a limb around its longitudinal axis are shown by the sign for rotatory movement, the upward curving bow of Ex. 135a being a positive rotation (clockwise), the downward bow of b) being a negative rotation (counterclockwise). The usual unit scale, 1=45°, is stated and the appropriate number for the amount of rotation is placed within, or below, the bow. These indications are placed in the appropriate space on the staff. Ex. c) shows 1/8 positive (clockwise) rotation for the left lower arm, followed at d) by 1/4 negative

(counterclockwise) rotation. Alternate placement for indication of degree is also shown.

Eshkol - Rotating

Note that in Eshkol's notation the parts of the staff can be used separately but must always be identified.

Ex. 135e shows 1/8 positive torso rotation (to the right) while the head rotates 1/4 in the same direction. The torso then rotates 1/4 negative while the head rotates 1/2 in the same direction, f). Eshkol can show destination from the 'zero' (normal) state by placing the indication within square brackets, g). If curved brackets are used as in h), the number refers to the side of the head which then faces 0 in the Absolute system of reference, i.e. here the left ear faces the audience. Rotations for legs and arms follow the same pattern, the indication being placed in the appropriate column, i) being outward and j) inward thigh rotation.

Eshkol - Rotating

- | | | | |
|-------|---|---|---|
| head |  |  |  |
| torso |  |  | |

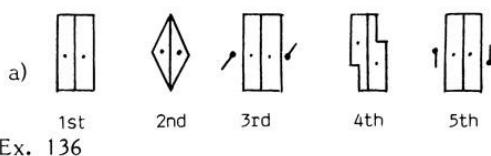
Abstract Symbol Systems: Positions of the Feet

In some systems the positions of the feet can be indicated without statement of degree of leg rotation, in others description of the positions must automatically include statement of degree of turn-out.

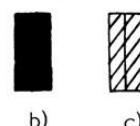
Laban: Positions of the Feet

Positions of the feet in Labanotation are shown in Ex. 136a. Closed positions are indicated with place symbols, the support being vertically under the center of weight. Black pins are used to show modifications in the relationship of the feet, the point of the pin indicating ('pointing') the relationship of one foot in front of (or behind) the other. Diagonal pins are used for 3rd position and forward- and backward-pointing pins for 5th position. Open positions are written with the appropriate direction symbols to show the relationship of each support to the center of weight. In 2nd position each foot is sideward of the plumb line. In the 4th position shown here, the right foot is forward and the left backward of center. Ex. 136b shows a low support in 1st, the knees bent in demi-plié and c) states a rise in 1st on the half-toe, i.e. relevé.

Laban - Positions of the Feet



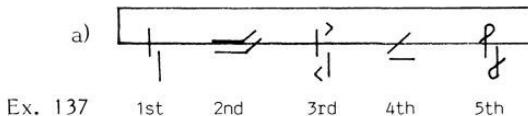
Plié, Relevé



Morris: Positions of the Feet

In the Morris system closed positions are written with vertical lines. Remember that the right foot is written on the line, the left foot below the line. 3rd position, right foot front, is shown by an arrowhead to the right of the right foot and to the left of the left foot. For 5th, right foot front, the indication for crossing is attached to the ‘place’ sign. 2nd position is written with two open sideward signs and 4th is shown by the forward sign for the right foot and backward for the left. Ex. b) shows the feet together, knees bent; c) shows rising on half-toe, the indication for plantar flexion (the short horizontal stroke in brackets) being placed below the symbols.

Morris - Positions of the Feet



Ex. 137

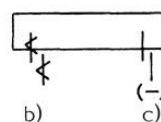
3rd

2nd

4th

5th

Plié, Relevé



b)

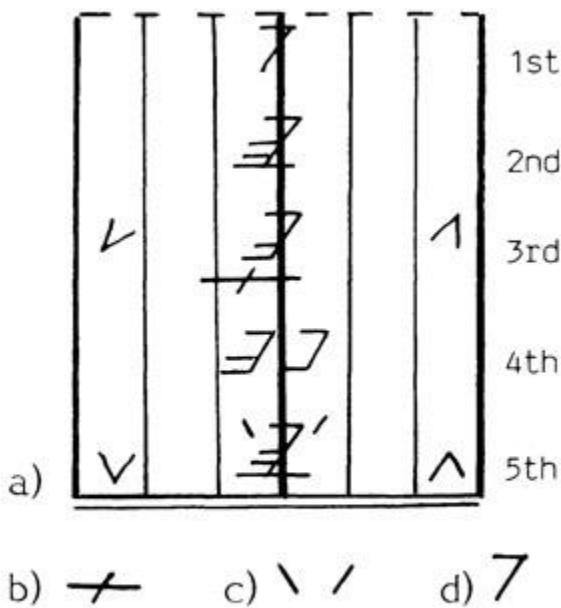
c)

Loring: Positions of the Feet

Ex. 138a shows positions of the feet written in the Loring system which reads from the top downward. For 1st position the vertical stroke for ‘in place’ is written across both thigh columns, thus applying to both legs. The lower leg is understood to be in the same direction as the upper. Note that in actual writing practice the vertical line slants to the right. For 2nd position the sign for sideward direction is also centered to refer to both legs, the open side direction is understood. For 3rd the place sign is accompanied by

arrowheads in the foot columns to indicate the relationship of the feet, the right one pointing forward diagonal, the left one backward diagonal. A slanted ‘tick’ under the direction symbol, reproduced as b), means minus, i.e. less crossed than 5th. In 4th position the left leg is shown to be backward, the right leg forward. For 5th the legs are shown to cross the plumb line by addition of the signs of c) and the arrowhead pointing forward is written in the right foot column. One arrowhead is enough, but here indication that the left foot is behind has also been given. The indication of Ex. 138d is added to each position to denote balletic turn-out.

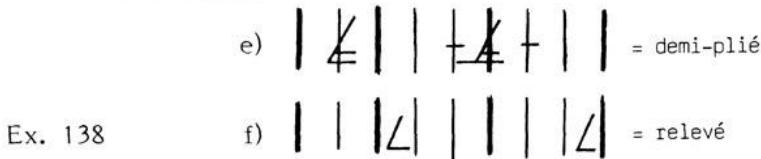
Loring - Positions of the Feet



Ex. 138

The knee bend in 1st, Ex. 138e, is shown by the level of the hips which is judged as distance from the floor, the two degrees written here indicating a demi-plié. Rising on half-toe is shown by the sign for demi-pointe in the right and left columns, Ex. 138f.

Loring - Plié, Relevé

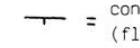
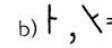


Eshkol: Positions of the Feet

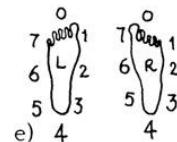
The 1968 publication, Classical Ballet, was the first in which the Eshkol-Wachmann system focussed on describing the vocabulary of a particular dance style. For this purpose it was found expedient to evolve the shorthand device of using Roman numerals for the five balletic positions of the feet. In Ex. 139f the positions are written out fully as presented in that book. The present-day version which is the result of ‘streamlining’ through avoidance of redundant statements is given on page 144, Ex. 139k.

The 1968 notation of the foot positions includes the sign for contact with the floor, Ex. 139a; touching of limbs, Ex. b); indication of weight, Ex. c), and release of contact with the floor, Ex. d). The numbers for the edges of the feet are shown in Ex. e). For each foot the numbering follows that established for direction, i.e. counting clockwise with zero being the front of the foot, 2 the right side (edge) of the foot, 4 the heel, and so on.

Eshkol - Contact

- a)  = contact (floor)
- b)  = touching etc.
- Ex. 139 c)  = weight
- d)  = release contact

Foot Edges



Ex. 139f reads as follows: for each position the feet are shown contacting the ground and the weight sign appears in the weight space (second from bottom). For 1st position the back surface of each foot (number 4) is shown to be touching. This touching produces the outward rotation used in ballet. In 2nd position the direction of the left and right feet are shown to be side horizontal (six-two and two-two respectively), again the result of the 90° outward leg rotation. The unit of the left lower leg and thigh is in the direction of 5 units up in coordinate (6), judged from the foot upward since the limb is supporting. The right leg is 5 units up in coordinate (2). The minus sign

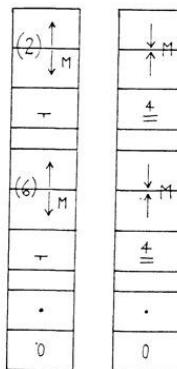
next to the 5 indicates that the angle of the leg is a little less than stated. As can be seen, the description was very precise. The asterisk used for 3rd states which foot is in front. For 4th the right leg forward is shown by (0) and the left leg backward by (4). The asterisk denotes 4th opposite 5th. For 5th the asterisk shows the right foot to be in front. The right surfaces of the feet (surface 2) are shown to contact, as occurs in the fully turned out 5th.

For the demi-plié position of Ex. g), the upper and lower parts of the leg are shown to move in opposite directions, the thigh ‘rising’ and the lower leg ‘sinking’ in coordinate (2) for the right leg and coordinate (6) for the left leg. The capital ‘M’ indicates maximum amount for the lower leg thus showing the deepest possible demi-plié. Ex. h) shows the relevé position, each leg is straightened to maximum and the heels are shown to be released from the floor by use of the number 4 above the short parallel lines. Since the heels are off the floor weight must be on the ball of the foot, i.e. half-toe.

Eshkol - Positions of the Feet; 1968

Plié, Relevé

R. leg	u 1 f	$\begin{pmatrix} 6 \\ 4 \end{pmatrix}$	$\begin{pmatrix} 5 \\ 2 \end{pmatrix}$			$\begin{pmatrix} 5 \\ 0 \end{pmatrix}$
L. leg	u 1 f	$\begin{pmatrix} 2 \\ 4 \end{pmatrix}$	$\begin{pmatrix} 5 \\ 6 \end{pmatrix}$			
		$\begin{pmatrix} 2 \\ 4 \end{pmatrix}$	$\begin{pmatrix} 2 \\ 6 \end{pmatrix}$	$\begin{pmatrix} 2 \\ 6 \end{pmatrix}^{2\ddagger}$	$\begin{pmatrix} 2 \\ 6 \end{pmatrix}^*$	$\begin{pmatrix} 2 \\ 6 \end{pmatrix}$
Weight		*	*	*	*	*
Front		0	0	0	0	0



Ex. 139 f) I II III IV V

g) h)

The above descriptions indicate the degree of detail given for each position or movement. Such careful analysis was found to be unnecessary and many simplifications and automatic assumptions were adopted. One of these is seen in the writing of symmetrical foot positions, as in 2nd or 4th for which only one number need be given, the other foot understood to be in the opposite direction. Ex. 139*i* shows 2nd position, while for 4th, *j*) states forward, the backward direction being understood.

SimplifiedForm

i) [2-]

j) [0-]

Ex. 139

Ex. 139k illustrates current practice in writing positions of the feet. The staff is condensed to spaces for right and left legs. The key for balletic turn-out at the left shows the left leg to have 2 units of 'negative' rotation (counterclockwise) judged from zero, while the right leg has 2 units of 'positive' (clockwise) rotation, also judged from zero. Placement of indications in square brackets states that the Body system of reference is being used, i.e. not the more usual Absolute system of reference for directions. The arrow in parentheses shows both legs to be stretched to the maximum.

Eshkol - Positions of the Feet; 1987

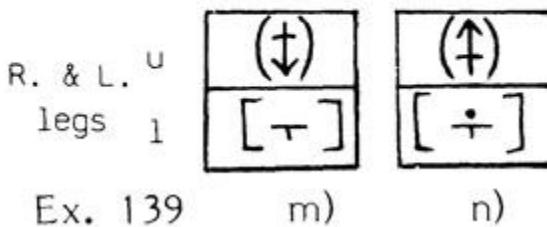
R. leg	[2]	<u>4</u> —	[2-] —	<u>3</u> —	[0-]* —	<u>2</u> —	
L. leg	[2]	—	—	—	—	—	<u>4</u> — I)

Ex. 139

k) I II III IV V

As mentioned before, when one leg is in the opposite direction to the other, it is enough to state the one leg, as in [2-] where the other leg is to the opposite side, or in [0-] where the forward direction for the right leg is stated and the left leg is understood to be backward. Leg rotation for 1st position, Ex. 1), can be described as contact between sides 4 of the feet, i.e. the heels; in 5th position it is sides 2 of the feet which touch. Ex. 139m shows the contemporary Eshkol-Wachmann notation for feet together with knees bent. As both legs are symmetrical, economy can be achieved; spaces are needed only for both upper and both lower legs. Because a position is shown the bending indication is placed in parentheses. Feet together is shown by the heels touching. In Ex. n), leg extension is shown for both legs in the upper leg space. Weight on the balls of the feet, written in the lower space, is shown by a dot above the sign for contact with the floor. The direction 0 for the legs is understood and only the square brackets are stated.

Eshkol - Plié, Relevé; 1987



As can be seen, in some systems positions of the feet were given without statement of leg rotation while in others the

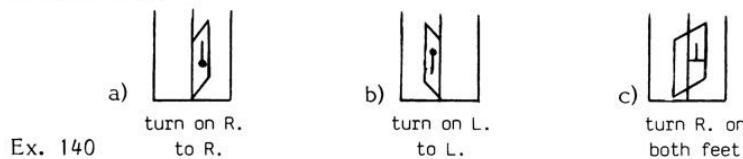
balletic turn-out was included. Inclusion of rotation was, in some cases, the choice of the notator, the subject of positions of the feet suggesting a balletic turn-out; in others indication of rotational state is an integral part of the basic description. This is particularly true for visual systems when the legs are bent since knee placement must be included in the notation even though it is not important and need not be specified.

Abstract Symbol Systems: Turning, Pirouette

Laban: Turning, Pirouette

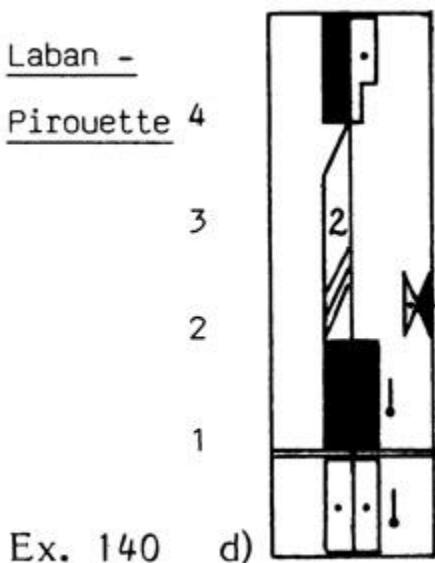
For a pivot turn of the body-as-a-whole the appropriate turn symbol, to the right or to the left, is placed in the right support column if the turn is on the right foot, and in the left support column if it is on the left. For a swivel turn on both feet the sign is drawn across both columns. Ex. 140a shows a full turn to the right on the right foot: b) is a half turn to the left on the left foot. In c), a swivel turn on both feet to the right ends facing front (the audience).

Laban - Turning



Ex. 140d shows the pirouette sequence given before - the double en dehors from 5th, finishing 4th, written in the Laban system. The starting position shows 5th, right foot front. On

count 1 there is a demi-plié preparation in the same 5th. On count 2 a turn to the right starts with a rise at once to half-toe while simultaneously the right leg moves to the *retiré* position. This is shown by the thigh being side horizontal and the lower leg sideward low in the opposite direction. The leg gesture column is divided to indicate directions for the two main parts of the leg, upper and lower. The pirouette continues during count 3. On count 4 the left leg bends while the right leg steps backward into 4th position with a straight knee.

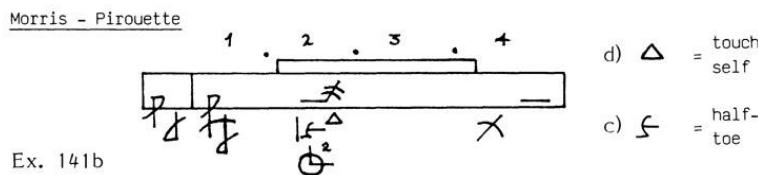


Morris: Turning, Pirouette

Morris originally used square signs to indicate turning of the body-as-a-whole, but in more recent years the signs have been changed to those of Ex. 141a.

Morris -					
<u>Turning</u>	To right:	↖	↗	↙	↘
	To left:	↙	↖	↘	↗
Ex. 141a		1/8	1/4	1/2	1/1

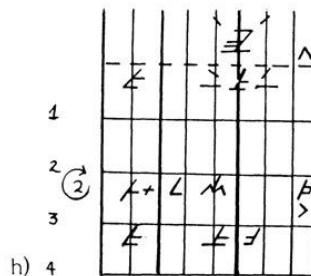
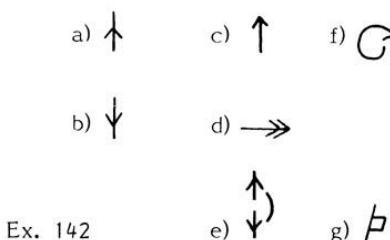
The pirouette in Morris notation, 141b, starts 5th right foot front. For the demi-plié on count 1, the curved sign on the vertical strokes shows bending the knees. The double pirouette to the right is shown by adding the number 2 to the sign for a full turn to the right. The sign next to the left vertical support shows weight is on the half-toe, Ex. c). The right leg is shown to be to the side with the knee very bent, thus producing the retiré position. The white triangle, d), indicates touching a part of the body - in this case the right leg touching the left. The bracket above this notation shows that the pirouette begins on count 2 and continues through count 3. On count 4 the left leg is forward with a bent knee, the right leg ends backward.



Loring: Turning, Pirouette

For minor turns Loring uses a change in facing direction. Ex. 142a shows Loring's sign for facing the audience, b) means facing upstage; c) indicates traveling forward; d) shows facing stage right and traveling in that direction; therefore a quarter turn to the right and a forward step must be understood to have occurred. A bow placed on the right side connecting a) and b), as illustrated in e), shows that a half turn to the right took place. For full turns a curved arrow is used, Ex. f); Ex. g) indicates a pointed toe.

Loring - Turning, Pirouette



Ex. h) gives the pirouette sequence in Loring notation, starting with 5th position right foot front. For the demi-plié on count 1, bending the legs, i.e. lowering, is shown by two strokes in the 'degree' area for the hips; the horizontal strokes crossing into the lower leg columns denote that the indication pertains also to the lower legs. On count 2 the empty space indicates the start of the next movement, the turn to the right, which is not written until count 3. The double turn sign is written outside the staff on the left, at the same time the left foot is shown to come to demi-pointe (written as one degree) and the left leg is 'normalized' while the right is

sideward and flexed two degrees. On count 4 the left leg bends as the right leg moves backward into 4th.

Eshkol: Turning, Pirouette

A turn for the whole body is written in the bottom space on the staff where weight and front are indicated. The same signs as those for rotations of the limbs are used for turns of the body-as-a-whole. Ex. 143a shows the pirouette in Eshkol notation as of 1968. At the start the right leg is shown to be in front by the asterisk next to the Roman numeral 'V'. The starting position includes a 'rising' arrow with a number 2 for the right leg; this is a key stating all movements to be in plane (2) for the right leg, plane (6) for the left. The demi-plié on count 1 is followed on count 2 by the turn to the right written in the bottom space. The double pirouette is indicated by the number 16, the key of 1 = 45° being understood. The longer horizontal bow shows the turn continues over count 3. For the left foot the sign = means release of contact and the 4 above it shows release of the heel. The 'L' next to these signifies a loose contact. Both upper and lower parts of the left leg are shown by 'M' to straighten to the maximum. The numbers in round brackets produce the retiré position, i.e. right thigh to right side horizontal (two-two), right lower leg to left side low (sixone). The minus sign slightly lessens the directions. The symbol of d) means contact. Contact with the left knee is known from the explicit matching contact signs; in the left leg space the 2 with the contact sign states that the right side of the left leg is contacted. On count 4 the 4th position is established, the left leg is front, heel again contacting the ground, Ex. e). The left leg bends while the right is stretched in coordinate (4). The right foot also contacts the ground.

Eshkol - Pirouette; 1968

R. leg	u	(2↑)	↑	(2) (6)		↓(4)
	1		↓	(1) 2		↑M
	f	V*		↓M 2		IV
L. leg	u	(6↑)	↑	↓M 2		↑
	1		↓	↑		↓
	f	V		4 L		4 IV*
Weight				*		
Front		(0)		16		

b) = = release contact

c) L = loose contact

d) T = contact

e) T = contact with ground

Ex. 143 a)

Ex. 143f shows the pirouette sequence as it is now written in the Eshkol system, experience having shown that much detail previously included was redundant. Outward leg rotation is indicated at the left; the top three spaces on the staff are for the right leg, the lower ones for the left. The bottom space entitled 'Front' is used for indication of the turning. 5th position is shown by contact of the right edges (2) of the feet with each other, Ex. g). Because they are 'paired' parts it is enough to write the information just for the one foot. In count 1 the abbreviated form of bending the legs is used. On count 2 of the sequence the sign for release weight is given for the right foot. The sign of h), also in the right foot space, states contact of tip of toe and relates to the sign of i) in the left lower leg space thus producing contact with the side of the left leg. These two, together with the established turn-out produce the retiré position. Thus, there is no need to indicate the 'rising' of right thigh and lower leg. The supporting left leg stretches to maximum. In the left foot space the sign of 1) states a loose contact on the ball of the foot. This sign is based on 'L' for loose, Ex. j), which for a 'heavy' limb (supporting

limb) is crossed with a small horizontal line, Ex. k). The double turn is shown as before by the '16' which is understood to continue through count 3. On count 4 the left leg bends and contact with the ground is understood to be on the whole foot. 4th position is stated in the right foot space by contact with the floor and the [4-] stating backward, the opposite direction for the left leg being understood. At the same time the right leg is shown to stretch fully.

Eshkol - Pirouette; 1987

[2]	u		\downarrow			$\uparrow M$
R. leg	1					
f		$\frac{2}{1} \frac{2}{1}$		$= +$		$\frac{4}{1} \frac{3}{1}$
[2]	u		\downarrow	$\uparrow M$		\downarrow
L. leg	1			$\frac{2}{1}$		
f		$\frac{1}{1}$		$\frac{1}{1}$		$\frac{1}{1}$
Front				$\frac{1}{1}$		

- g) 212 = paired

h)  = tip of toe
contact

i)  = side of leg
contact

j)  = loose

k)  = loose heavy
limb contact

l)  = ball of foot
loose contact

Ex. 143 f)

Note: Ex. 1431 is a convention to indicate sliding (pivoting) on the front part of the sole, i.e. the ball.

Abstract Symbol Systems: Walking, Jumping

The walking and jumping patterns given earlier for other notation systems are here investigated for the abstract symbol systems.

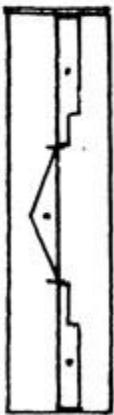
Laban: Walking

In the Laban system progressions of the body-as-a-whole are written in the center columns on the staff. Walking is shown by placing the appropriate direction symbol in the support column adjacent to the center line, on the left for steps on the left foot, on the right for steps on the right. A step is analyzed as a transference of weight of the whole body. In Ex. 144a the pattern is a step forward on the right foot, a step to the left on the left and a step backward on the right.

Laban - Walking Sequence

Ex.
144

a)



Morris: Walking

A step on the right foot in Morris notation is written on the bottom line, a step on the left foot below the bottom line. In Ex. b) we see the progression of forward on the right, sideward on the left and backward on the right. For sideward the open side direction is understood.

Morris - Walking
Sequence

Ex.
144

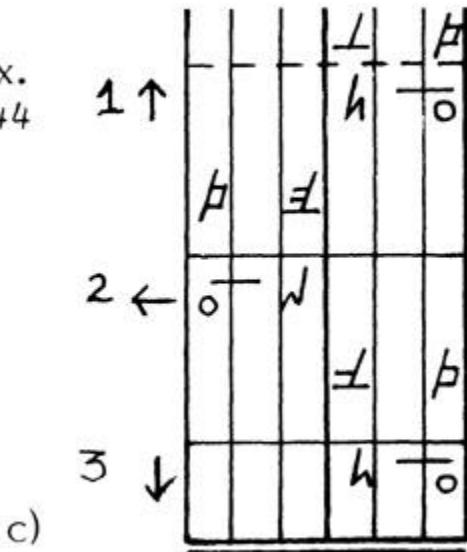


Loring: Walking

In the Loring system Ex. 144c starts with a preparation for the step: the right foot is extended forward, the pointed toe touching the floor. On count 1 there is a transference of weight forward, shown by the arrow placed outside the staff on the left. The left leg extends sideward low on count 2, toe touching the ground, and continues its left sideward step, as indicated by the arrow for traveling left. The right leg is then extended backward and on count 3 traveling backward is indicated. Following each traveling move

Loring - Walking Sequence

Ex.
144



d) ○ = weight mark

Eshkol: Walking

For walking Eshkol formerly indicated the leg gesture which preceded the step, but recently the system has been simplified by adopting a convention for the action of stepping. For patterns which are merely walking steps, it is enough to indicate 'S' for step. This sign can be combined with before-staff statements identifying the spaces. In Ex. 144e only the leg spaces of the staff are given. On count 1 the right leg steps into the direction zero, that is, forward. The zero is placed within square brackets to state that the step is toward

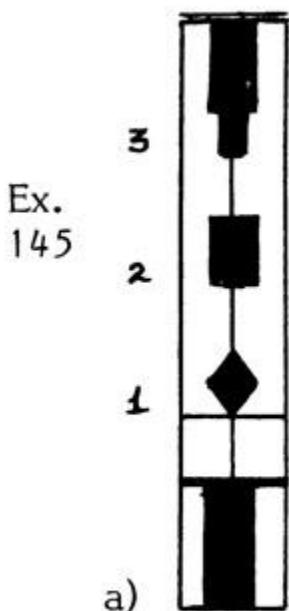
the performer's front, i.e. wherever the performer is facing. On count 2 the step to the left side is shown by the number [6] and the step backward on count 3 on the right leg is shown by number [4]. Note that often Eshkol describes steps from the 'Absolute' key, i.e. the Constant directions established in the room.

Eshkol - Walking Sequence; 1987

Ex. 144	e) (S)	R. leg	L. leg	1	2	3
				[O]	[6]	[4]

Laban: Jumping

In the jumping pattern all supports are in demi-plié. The shape of the symbols show direction. Jumps are indicated in the Laban system by leaving a space between supports, this space shows absence of support, i.e. the time spent in the air. Ex. 145a starts with the feet together, knees bent. The following space indicates a spring into the air, which is then followed by landing with the feet apart in 2nd position on count 1. The next jump lands on count 2, feet together, and the last travels backward landing feet together on count 3.



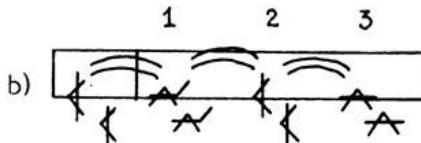
Laban - Jumping Sequence

Morris: Jumping

Springing into the air, Ex. 145b, is indicated in the Morris system by a double bow connecting the support symbols. The demi-plié is shown by the 'V' written across the direction signs. The feet start in 1st position shown by the vertical strokes; they then spring into 2nd position, shown by the two side signs, then once again spring into 1st; finally both are shown to land backward after a third spring.

Morris - Jumping Sequence

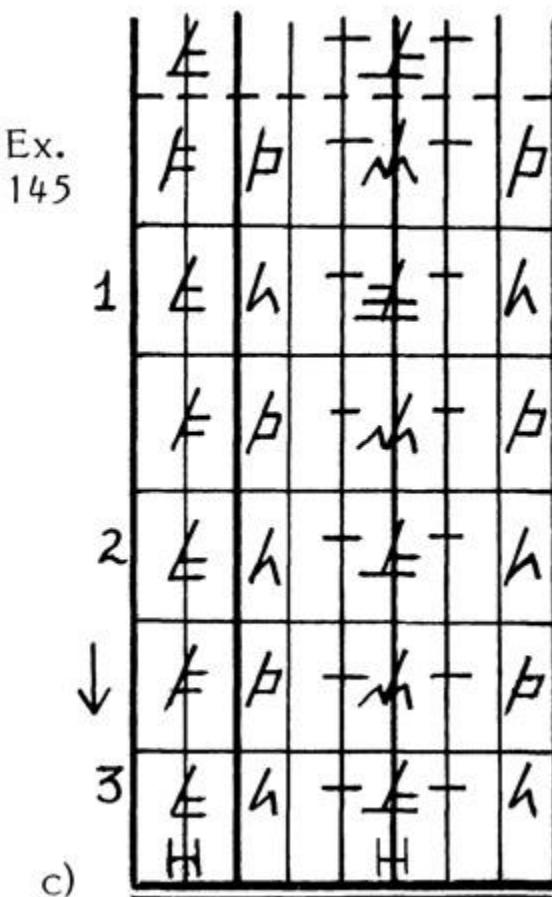
Ex. 145



Loring: Jumping

In Loring notation the starting position for the jumping pattern, 145c, is given at the top before the dotted line. The legs are in 1st position, feet parallel, the hips at two degrees, i.e. demi-plié, shown across the hip columns on the left. For the spring into the air on the ‘&’ count, the hips are at the 5th degree, ‘normalize’ is used across the center line to cancel both supports and the sign meaning stretched is indicated in both foot columns. Subsequently, the sign for ‘normalize’ is written for the feet on count 1, the legs landing in 2nd position and the hips showing a demi-plié. After a second spring, the legs return to normal, landing in 1st on count 2 in demi-plié. For the third spring the arrow outside the staff shows traveling backward. Following the last landing on count 3 the sign ‘;H’ for hold is given. When both legs are the same the indications are written on the center line between the leg columns.

Loring - Jumping Sequence



The Loring notation given here reveals the need some notators felt for stating every detail in what is, in fact, a simple movement phrase. Systems which at first provided such full information later simplified the writing (see also

Eshkol) while others which began with simple descriptions later came to add more and more details.

Eshkol: Jumping

Ex. 145h on the next page ‘spells out’ the jumping pattern in full according to the usage published in the 1968 Classical Ballet book. To understand the notation the following signs need to be explained: a black dot, Ex. 145d, placed in the weight space indicates contact with the ground. It is, in fact, an auxiliary sign indicating weight, not contact. As mentioned before, parallel horizontal strokes, Ex. e), state absence of contact. Parallel lines within parentheses, f), mean a jump (spring) into the air. A black dot within square brackets, g), shows ‘in place’, i.e. no traveling.

Eshkol = Jumping

d) • = weight, contact
with the ground

f) (≡) = spring into air

Page 145

c) — chances of contact

g) $\llbracket \bullet \rrbracket = \text{'in place',}$
 $\qquad\qquad\qquad (\text{no traveling})$

Eshkol - Jumping

Sequence: 1968

B 180

(1)	(2)	(3)
\uparrow $\downarrow M$	$\downarrow \text{II}$ $\uparrow M$	\uparrow $\downarrow M$ $\uparrow M$
I	$\not\equiv$ II	\uparrow $\downarrow M$ $\uparrow M$

110

\uparrow	\downarrow II	\uparrow	\downarrow I	\uparrow	\downarrow I	\uparrow
\downarrow M	\uparrow M	\downarrow M	\uparrow M	\downarrow M	\uparrow M	\downarrow M
I	$\not\equiv$	II	$\not\equiv$	I	$\not\equiv$	I

Ex. 14.5

b) Front

• (=) • (=) • (4 =) •

In Ex. 145h the feet are shown to be in 1st position at the start with both legs in demi-plié (knees bent). On the upbeat weight is released from the ground. In the foot space, indications show release of contact and, at the same time, a negative movement, i.e. downward for the foot causing the foot to point. Meanwhile the lower and upper leg movements cause the legs to extend. On the upbeat the numeral 'II' anticipates the movement into 2nd position for the next landing. For this, contact with the ground is shown by the black dot and the legs land in demi-plié. The same indications follow through in describing landing in 1st on count 2. Traveling backward before landing on count 3 is shown with the number 4 in the weight space while in the air. Note that the counts given above the notation are written here for the benefit of the reader and are not part of the notation.

Eshkol - Jumping Sequence; 1987

Ex. 145	i)	legs	♩ 1 ♩ 2 ♩ 3 ♩
			[] (↑) [6-2] ↓ R ↓ [4] ↓

In the present-day simplified version of this jumping sequence, given in Ex. i), the leg action details are omitted. Square brackets in the starting position represent zero (feet together) and the simplified indication for bending the legs is given. Next, while in the air, the [6-2] shows direction of the legs for 2nd position before landing on count 1 with bent knees. The 'R' for reverse on the '&' count shows the legs retrace their path thus landing in 1st on count 2. Traveling backward is stated by [4] while in the air. The landing on count 3 is with the feet together, knees bent.

Description of this jumping sequence has specifically included bending the legs before and after each jump; in most systems such bending can be taken for granted and so left out to simplify the notation.

Abstract Symbol Systems: Arm Movements

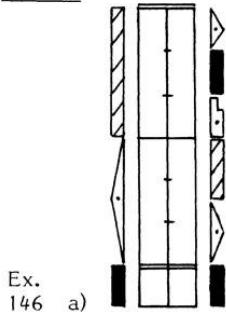
The simple arm pattern given earlier for other systems of notation is now presented for the Laban, Morris, Loring and Eshkol-Wachmann systems.

Laban: Arm Movements

In the Laban system the arms are written in the 4th column out from the center - right arm on the right side, left arm on the left. Reading from the bottom up, in Ex. 146a, the first indication, 'place low', means the arms are straight down. In the first measure on count 1, both arms start to move sideward, the left arm taking three counts to arrive at the side horizontal destination, while the right arm moves continuously sideward and upward over three counts. The right arm then moves forward on count 1 of the second measure, downward on count 2, and to the side on count 3. At the same time, the left arm moves slowly up to the vertical ('place high') taking three counts. Because movement symbols follow one another without a break, continuous movement for the arms is indicated.

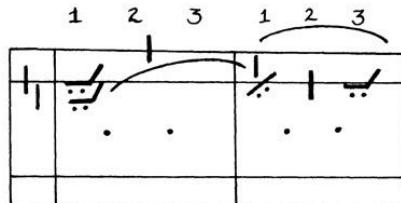
Laban - Arm

Sequence



Morris - Arm

Sequence



Morris: Arm Movements

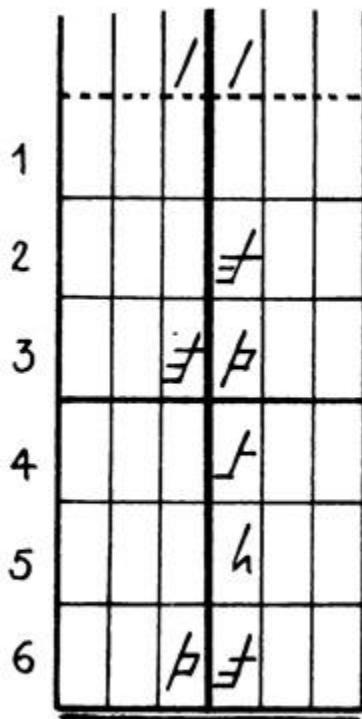
In the Morris system the arms are written on the upper two lines of the horizontal staff, the right arm being written on the line, the left below the line. In Ex. 146b, at first, both arms are straight down. The sideward indications with two dots show that both arms move side horizontal. The right arm then moves vertically up, as shown by the vertical stroke on the top line. The upward 'legato' bow in the first measure shows that the left arm takes three counts to move side horizontal. In the second measure the right arm moves forward horizontal, then downward, and then sideward horizontal, each movement taking one beat, while the left arm - shown underneath the top line - moves vertically up taking three beats, as shown by the bow.

Loring: Arm Movements

In the Loring system - read from the top down - Ex. 146c shows that both arms (that is, both upper arms which carry with them lower arm and hand) are straight down. The

movement side horizontal for the left arm is written in the space for the third beat (count 3) which means that counts 1 and 2 are spent moving there. The movement for the right arm sideward and then up is spread evenly over the three beats. In the second measure the left arm takes all three beats to arrive up while the right arm has one direction per beat -first forward horizontal, then down, written as ‘normalized’, then to the side. It will be noted that only part of the staff need be shown when only one part is moving, a feature also used by the Laban, Conté and Eshkol systems.

Loring - Arm Sequence



Ex.
146 c)

Eshkol: Arm Movements

Ex. 146d states that the Eshkol staff represents the left and right arms; since no subdivision of the arms is needed in this sequence, none is given. As no number is written, both arms

start down, the understood zero position. Indeed the square brackets can also be omitted. The left arm ‘rises’ four units in coordinate (6), taking all six counts and arriving only at the end of the second measure. Since the movement of the left arm is all in the same plane and in the same positive ‘sense’, the economy of the system inwriting such a circular path is clearly illustrated. The right arm begins by ‘rising’ four units in coordinate (2), but takes only three counts to arrive. At the beginning of the second measure the right arm moves four units in the negative ‘sense’ in coordinate (0), then ‘rises’ two units in coordinate (2) ending side horizontal on count 3.

Again counts have been added to this example for the benefit of the discussion; they are not part of the notation.

Eshkol - Arm Sequence

	1	2	3		1	2	3
L. arm	(6) \uparrow 4						
R. arm	(2) \uparrow 4			(0) \downarrow 4		(2) \uparrow 2	

Ex. 146

d)

Abstract Symbol Systems: Advantages and Disadvantages

Most abstract symbol systems work on the basis of ‘spelling out’ movement patterns through signs representing basic elements: body part, direction, flexion, extension, rotation, use of time, energy, etc. Such systems have the advantage that any movement can be recorded by determining its composition in the selection and arrangement of these

elements represented by signs. The signs themselves constitute a language which must be learned - in contrast to the direct visual representation seen in figure drawings. It will have been observed, however, that all visual systems must include some signs; the more detailed the movement representation, the greater the need for signs. It can be argued, therefore, that if many abstract signs are required to indicate important details, it is better to start with abstract symbols and have a logical follow-through in development.

Laban: Advantages

Any visual representation of movement on paper provides obvious advantages. The Laban system contains more visuality in its structure than may at first be apparent. The vertical staff representing the dancer shows visually the lateral symmetry of the body build and, thus, allows symmetrical movements to appear as symmetrical indications on the page. The vertical staff, which the performer identifies with the vertical self, also allows visual indication of continuous flow of movement through symbols written without any break. Timing is visual in that length of a symbol indicates duration of an activity. Variation in length provides great facility and flexibility in indicating rhythms and interrelated timing for different parts of the body, that is, slight or greater overlap in the start or finish of two or more actions. Such subtle variations in timing can be seen visually without the reader having to count out precisely the exact thirty-second note (demi-semi quaver) difference.

The direction symbols are visual: each points out the main direction it represents. The 'block' shapes create patterns

which can be read as clusters rather than as individual signs. These clusters become immediately recognizable when representing familiar movements; thus sight-reading becomes possible. The ‘block’ symbols also provide the main structure of the movement, minor details and modifications being indicated by addition of pins, hooks and other smaller attached signs.

The Laban system has been developed on a universally-based analysis of movement, thus making it suitable for all forms of human movement. Although the system is generally presented through commonly understood spatial description of limb placement, e.g. arm raised forward horizontal, head inclined sideward to an upward slanting line, etc., the basis of its analysis is as scientific as those which proceed from a wholly mathematical concept. Universality in development and application of the Laban system has been guaranteed by the fact that the system is not the product of one person’s ideas; many different people working in a variety of movement disciplines have contributed to it from their experience.

There is in existence a wide choice in movement descriptions to fill particular needs. The standard description of destinational points passed through or arrived at, used by most systems, was extended in the Laban system to include other spatial and physical descriptions. For example, use in medical fields often requires anatomical descriptions comparable to those provided by Stepanov and Morris; other needs demand description of the trace form made by an extremity, or representation of a particular body shape. Expression of a movement may rest on its arrival at a specified destination, or the aim of a movement may be

displacement away from a previous situation or state, or toward another state or situation without arrival being achieved. Such choice of description affects the expression of the movement. These developments in the system were the result of its application to different choreographic or educational requirements and of the need to avoid distorting a movement by recording it in a form unsuited to its nature or intent. Needs also range from very general indications to finely detailed descriptions of precise performance of a movement. As with all other systems, Labanotation was first designed to deal with the structured forms of dance, but in recent years choreographic and educational demands have given rise to a freer, more general description which focusses on the basic concept or motivation of a movement rather than on a particular finished form. Indications of basic concepts and movement fragments out of context have resulted in a freer use of existing symbols in what is called Motif Description.

A significant advantage in the Laban system is the fact that one symbol provides four pieces of information: the part of the body that moves, the direction and level, the moment when the movement begins and the duration of the movement. In no other system is such economy achieved.

Only in Labanotation has indication of timing been so deeply investigated and, as a result, has so high a level of specificity been achieved. Yet for a general description of movement the indication of timing can be kept general, i.e. sufficiently simple for the average need. Furthermore, a statement can be made that the timing is free, or even that timing should not be given consideration. On the other hand, very exact interpretation of timing can be indicated, i.e. independent

statements regarding such uses of time as duration, speed, and other related aspects.

The embodiment of timing in the movement symbol itself precludes the need for placement of the notation under the music to indicate a rhythmic pattern. As noted above, however, the timing element normally indicated by length of symbols can be stated to be disregarded, the timing aspect thus being eliminated from the notated sequence. The addition of measure numbers provides easy location of material in

teaching sessions, as well as immediate correlation with the pianist's score during rehearsals. It is interesting to note that not all systems provide numbered measures. For a finished score, when desired, the music can be placed alongside the notation for reference - a helpful addition when much 'rubato' exists. Such vertical placement of music is for the dancer's benefit. Although Labanotation is read vertically because the staff represents the vertical body, it has at times been printed horizontally for practical purposes; the reader merely rotates the page.

In choice of symbols emphasis has been placed clearly on observable differences. An effort has been made to give each symbol only one meaning, thus avoiding confusion and the learning of special rules and exceptions, a drawback that too easily occurs in the development of a system. Rules in the system are kept to a minimum; movement patterns are spelled out, following movement logic. Automatic assumptions concerning the meaning of simple indications, such as those which make memory-aid systems simpler to write but involve more learning of theory, are also kept to a minimum.

There is no change in the meaning of the symbols when they are applied to different forms of dance; once the movement analysis and the representation of it on paper are learned, the symbols are applicable to every form of movement. However, specialists in a particular form may evolve special usages for their needs, such usages being carefully explained in a glossary at the start of the score or book.

Speed in writing would not appear to be an advantage in the Laban system because of the 'block' symbols used. However, in speed writing tests which involved copying examples of notated sequences, the scribbling of Labanotation signs (while yet retaining legibility) has proved to be faster than the writing of another system's cursory signs that require careful placement on the staff. Thus, in this respect, writing in the Laban system need not be slowed down by choice of graphics.

Every system needs widespread trial under a broad variety of situations; only from such use can healthy growth take place in the development of a system. Spread of the Laban system has provided such trial through its professional application in recording choreography of many types, classical and contemporary, as well as ethnic dance forms and non-dance activities such as sports, swimming, riding, etc., not to mention its application to zoology. In the publication of books the Laban system has the greatest number and widest range, textbooks alone being available in eleven languages. Much dance material in the public domain has been published; now, increasingly, choreographers with faith in Labanotation are agreeing to publication of their works.

Laban: Disadvantages

The basic movement analysis used in the Laban system is often unfamiliar to dancers brought up in a dance ‘school’ or technique which has its own point of view and terminology. As a result, Labanotation,

does not immediately ‘speak’ their language. Many dancers are not accustomed to analyzing movement and resist undertaking an analytic approach, preferring a notation system which requires a less specific understanding of the components of a movement. The wide choice of movement description and the ways of looking at and analyzing what is taking place, together with the possibility of indicating intention rather than a destinational result etc., are all factors which may seem daunting to people who prefer not to be faced with choices, and who favor one form of description related to the dance style with which they are familiar.

Because it is highly developed and many notators produce detailed scores, the Laban system can seem overwhelmingly complex. A choice in movement description so appreciated by the specialist is bewildering to beginners. In fact, however, the system can be selectively limited to cater to one or another particular need. Because of the belief that notated material should be readable by anyone who has studied the system and that dance scores should contain all the needed information without relying on the reader’s previous knowledge of the dance or of the particular movement style, shorthand devices used by professional notators working at speed, and abbreviations used by those familiar with the style are written out fully in the final score. No effort was made by the developers of Labanotation to provide simplified,

memory-aid versions of the system for particular forms of dance. Calls on the system focussed increasingly on detailed movement description. In the main, Labanotation has been taught and used as a ‘longhand’, whereas many people are looking for a quick shorthand method. Shorthand devices have not been taught to beginners in the study of Labanotation.

To some an inbred preference for horizontal writing and the general familiarity with the horizontal music staff make the Labanotation staff appear strange and without logic. In particular, this vertical staff seems to preclude direct relationship between the dance and the music scores.

Another disadvantage is that the graphics of Labanotation do not ‘look’ like movement; translation of the symbols into dance must be learned, a fact that is, of course, true of all systems except those which represent movement pictorially, thus giving an immediate image of the main feature.

The indication of the duration of movement through length of the symbol is one of Labanotation’s greatest strengths and also one of its drawbacks when specificity is not needed. In teaching the system the movement pattern and its timing are not usually separated. When the timing of a sequence is changed the sequence must be rewritten; this is also true of music note systems but not of the systems where indication of the timing is a separate addition to the basic movement description. Because timing is built into the movement indication there is emphasis from the start on being specific in stating how each movement

uses time. Determining timing is often the last element to be pinned down in teaching as well as in recording a movement

phrase. Few dancers are aware of the subtleties of timing, musical aspects being the most neglected element in dance teaching. When timing seems obvious or already familiar, having to state precisely what happens in use of time is seen as a hurdle imposed by the notation. Note: the signs which indicate that timing is general or can be disregarded have only recently evolved.

Laban's failure initially to establish a center of control for the system allowed for individual development, particularly during the Second World War. As a result, differences arose between Kinetography Laban in Europe and Labanotation in the United States. With the formation of the International Council of Kinetography Laban in 1959 these differences have been greatly reduced. However, they must still be learned, especially if one is reading old scores.

Morris: Advantages

The Morris system provides a sound anatomical analysis of movement concentrating on use of the joints and parts of the body. Small though her book is, Morris deals with specific actions not covered in many other systems. Her aim was simplicity, and she chose graphic indications composed of simple strokes and curves. Directional description is based on the body build, i.e. a body system of reference. As there is no other choice in describing directional movements the system is less complex to learn than those which provide other possibilities.

Morris: Disadvantages

An immediate disadvantage for the reader is that the staff is not symmetrical; thus symmetrical movements and positions do not appear as symmetrical indications on paper. Level for the main directions cannot be indicated out of context; only when it is on the staff can one know whether the perpendicular line represents straight down or straight up.

Timing is dealt with in a rudimentary way; as with many systems not highly developed, the need to be more specific was probably never felt.

The direction symbols are not obvious; indeed, it is rare that indications contain a visual element, an advantage for any system even though it is not based on visual representation. Signs do not exist for the individual parts of the body; for example, no signs exist for the hands, palms, fingertips, etc. Instead Morris provides specific movement signs for each anatomical action possible for each joint and the limb segment affected, a method which results in the need to memorize a large number of different signs.

The development of the Margaret Morris Movement schools and performing groups and Morris' medical work absorbed her time to such an

extent that none was left for further development of the notation, and with no younger generation taking over that responsibility, the system has never had full usage. There is now, however, a revival of interest in Morris' system among specialists in the Margaret Morris Movement; new publications on the system are beginning to appear and enthusiasm is being generated to develop the system further.

Loring: Advantages and Disadvantages

The Loring system provides a fascinating study for those concerned with movement notation and with how different individuals have analyzed movement and their choice of graphic representation. Without question Loring had unique ideas and for this reason his system is included in this investigation.

The book on Loring's system neither went into sufficient detail nor gave enough examples for the system to be examined as deeply as many others. His system was never widely used and it is significant that individuals who studied it and who later met Labanotation report that they found the latter easier to learn and more rewarding to use.

Loring's staff representing the body is space-consuming and occupies most of the page. It is, however, symmetrical in its placement of columns for the parts of the arms and legs. Since no specific signs for individual parts of the body exist, it is not possible to write isolated actions for any one part without resorting to use of the complete staff or identifying in words the section of the staff being employed.

Loring's symbols are neither visual nor easy to memorize. An indication of any system's logic is the degree to which someone working with various systems can easily remember how that particular system works. The progression in the addition of strokes to the basic vertical line is not the same in different categories of movement: hence memorizing is slowed down. Sideward direction is always the open sideward

direction: one does not know whether the symbol refers to the right or left side until it is placed in the appropriate column. As with some other systems statement of sideward directions out of context is therefore not possible. Indeed, the system does not allow for general reference to movement elements, having, like so many others, been designed for structured descriptions. The movement analysis of the Loring system requires special understanding. A basic type of movement, such as rotation, is not indicated by one symbol which is then applied to the various parts of the body capable of that action. According to which part of the body is performing a flexion or rotation, there will be a different analysis and therefore different signs.

The system is of interest mainly because it is so different from any other in almost every aspect - the broad staff, reading from top to bottom, the kind of symbols used and the thought processes behind the system itself, such as categorizing movements as emotionally-based.

Eshkol: Advantages

The Eshkol-Wachmann system is based on clear mathematical logic and cannot in that respect be faulted. Because its basic unit of movement can be varied and made quite small, it provides a great range in the degree of generalization or specificity used. For direction there is a choice of system of reference, an aspect lacking in all other systems except the Laban. Salient advantages are the indication of circular patterns with very few signs and the possibility of showing motion as well as destination. A logical indication of timing provides flexibility in the choice of unit

length for a beat. Since only numbers and simple signs are involved, no skill in drawing symbols is required. Use of numbers and the mathematical basis of the system have interested people working with computers. Eshkol's particular view of and concern with movement in itself sets the system apart from others. The absence of focus on dance as such, quite apart from any particular form, puts the system in a different category from the majority of notation systems evolved specifically to serve dance. Users of Eshkol's system look at movement from a highly objective and mathematical viewpoint, a fascinating study for those interested in a completely abstract approach.

Eshkol: Disadvantages

Its very advantages prove in certain respects to be the disadvantages of the Eshkol-Wachmann system. For dancers it does not 'speak' the language of dance, nor does it provide description of movement in terms familiar to physical educators, gymnasts or skaters - to mention but a few of the groups of people concerned with analyzing movement and recording it on paper.

The full staff of the Eshkol-Wachmann system is space-consuming and its arrangement of spaces for the parts of the body does not reflect the body's symmetricality. When a section of the staff is written out of context it must always be identified with words or word abbreviations (usually in English). There are no signs for individual parts of the body. Only one type of movement description is, as yet, provided; the body is seen as a series of 'rods' (limbs) linked by joints. Some comparatively simple actions carefully analyzed and

recorded in great detail require that the reader glance down several columns for information on what is, in fact, a simple message. However, it should be noted that conventions, abbreviations and streamlining have recently been introduced. For example, the process of walking was originally written out fully, the action in each leg joint being described; now the convention of 'S', meaning a step, has been adopted.

Any system using numbers entails deciphering - in contrast to the cursory sight-reading made possible in music and in certain dance notation systems by patterns formed by notes or symbols. It is interesting to consider an historical parallel. Jean-Jacques Rousseau, the 18th century dramatist and poet, invented a system of music notation based

on numbers and received the following criticism of it from Rameau (an extract from Rousseau's autobiography *Les Confessions*): "Your notation is excellent in so far as it determines the value of notes simply and clearly, accurately represents the intervals and always shows the original phrase and its doubling together....but it is bad so far as it demands a mental process which cannot always keep up with the rapidity of the execution. The position of our notes spring to the eye without the assistance of the mind. If two notes, one very high, the other very low, are joined by a passage in your notation I have to decipher all your numbers one after the other, a general glance will not do". Between the visual representation of movement and the abstracted scientific approach based on movement analysis a practical balance needs to be found.

Chapter Six

Survey of the Main Systems

To conclude, two movement sequences, written in each of the main notation systems, will be compared. This time, however, the systems will be presented chronologically: Feuillet, Saint-Léon, Zorn, Stepanov, Laban, Morris, Conté, Loring, Benesh, Eshkol and Sutton.

Some degree of familiarity is provided by giving both a simple jump and step pattern and a simple arm movement for each. The examples are placed together as much as possible rather than interspersed with explanatory notes. However, descriptions are given of what each example states for those who might wish to reinforce their understanding of how each system works.

Jumping Sequence No. 2

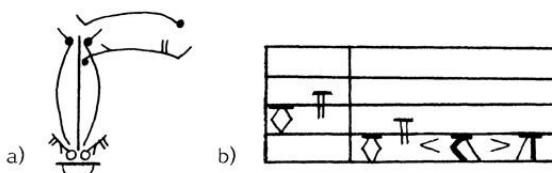
The movement pattern of Exs. 147a - m) is as follows: start feet together, knees bent. Jump forward, landing feet together; spring to the right on the right foot and then step to the left on the left foot. Each spring lands with bent knees and the step is onto a straight leg.

In the Feuillet system, Ex. 147a, the feet start together. Indications for bending the knees and rising into the air precede those for landing forward on both feet. Next, bending the knee and springing onto the right foot traveling to the

right is followed by an ordinary step to the left on the left foot.

For Saint-Léon, Ex. b), feet together (first position) is understood unless a number for one of the other foot positions is given. Rising into the air is shown by the leg sign ending in a space. Traveling forward is indicated by the next landing being on a line lower on the staff, i.e. closer to the audience. Traveling to the right is shown by the sign < and to the left by >; one must always remember right and left are reversed on the page, and therefore the notation gives the audience view of the dancer.

Jumping
Sequence
No. 2



Ex. 147

Feuillet - 1700

Saint-Léon - 1852

In Zorn notation, Ex. 147c, the feet start together, knees bent. The sign for springing is accompanied by a white arrow for traveling forward and followed by landing on both feet, knees bent. Springing up from the right foot and traveling to the right (seen here from the audience point of view) are followed by landing on the right foot, knee bent. The sign for weight transference to the left precedes the indication of supporting on the left foot.

In Stepanov notation, Ex. 147d, only the staff for the legs is shown. First the square note for whole foot contact with the ground signifies feet together, knees bent. Rising into the air for both legs is shown as forward gestures which are ‘tied’ to

the next support sign by dotted lines to indicate that this new support has traveled forward. Next are signs for both legs in the air, the left leg down, the right leg sideward; a dotted line ‘ties’ this sideward gesture to the next support showing that the support lands to the side. A sideward gesture for the left leg is then ‘tied’ to the following support to show a sideward step.

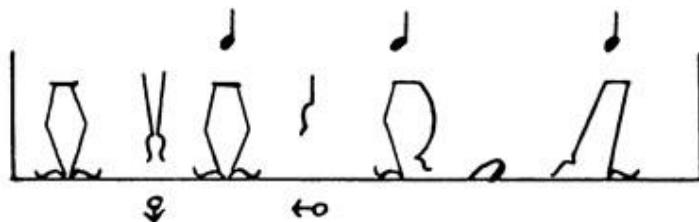
The Laban version, 147e, starts with ‘place’ symbols in the support columns to indicate feet together, knees bent (black denotes low level). Next the gap in the support columns indicates no support, a rise into the air. Direction symbols show landing forward on both feet, knees bent: this is followed by a spring to the right on the right foot. The step to the left onto the left foot is on a normally straight leg, i.e. middle level indicated by a dot in the direction symbol.

In the Morris system, 147f, the legs start together, straight down, bent knees being indicated by curved lines drawn across the direction symbols. A double upward curving bow indicating a spring into the air ends with two forward signs, knees bent. A single upward bow indicates a spring onto one foot, here the right (written on the line), landing to the side on a bent knee. This is followed by a simple step to the left on the left foot (written below the line).

In the Conté system, 147g, notes in the support columns show feet together, carets above and below stating bent knees. A rest sign indicates a spring into the air. Traveling forward is shown by a number 1 placed before the sign for landing feet together, knees bent. Another rest sign denotes a second spring which lands to the side (indicated by number 2) on the

right foot, knee bent. Following this is a simple step to the left on the left foot.

Ex. 147h, the same sequence in the Loring system, shows the feet starting together, 'in place', knees bent (shown as hips lowered). Hips rising denotes a jump in the air and traveling forward is shown by the arrow outside the staff on the left. In the air the legs are 'normalized'. After landing feet together, knees bent, another spring traveling to the right (as shown by the arrow) lands on the right foot. Finally, a step to the left is shown, the leg first extending to the side (foot pointed) then returning to normal. Traveling to the left is shown by the arrow.



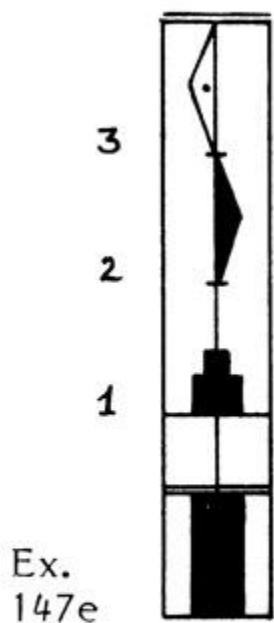
Ex. 147c

Zorn - 1887

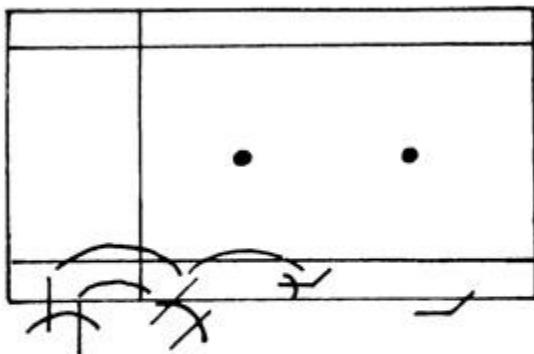


Ex. 147d

Stepanov - 1892



Laban - 1928



Ex. Morris - 1928
147f

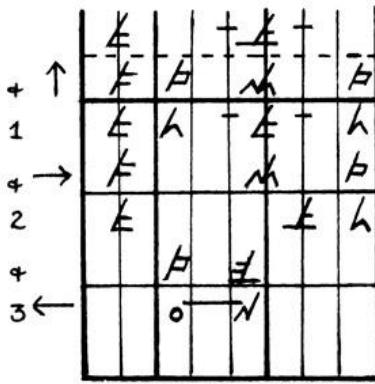


Ex. 147g Conté - 1931

\circ = weight

Ex. 147h

Loring - 1955

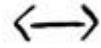


While no statement of leg rotation was required, in the Benesh version, Ex. 147i, placement of the bent knee signs in the starting position automatically shows outward leg rotation. The downward curved for a spring into the air is crossed by a short vertical stroke to traveling forward. Landing is with feet together, knees bent. Jumping to the right on the right foot is shown by attaching the support symbol to the right end of the bow; the left foot ends off the ground to the left. Stepping to the left on the left foot is shown by the ‘step line’ being drawn from the left side of the previous support sign. At the end the right foot is just off the floor to the right.

Ex. 147j shows this sequence as originally written in the Eshkol system. Both feet contact the floor with weight; bent knees are shown in the upper and lower leg spaces by arrows for ‘rising’ and ‘sinking’. The release contact signs in the spaces for the feet show springing into the air as the legs stretch. Traveling to (0), i.e. forward, while in the air is shown in the weight space. Landing with bent knees is followed by a

spring traveling to the right, (2), after which the right foot contacts the floor with the knee bent. Finally, the left leg extends the left (6) prior to the new support on the left, the right leg stretching and releasing from the floor.

The 1987 Eshkol version of this sequence has been much streamlined. In Ex. 147k spaces are given only for the right and left legs. Square brackets around the identification for the spaces state use of the Body system of reference for directions. The starting position shows contact with the floor and bent legs. Release from the floor combined (0) state traveling forward while in the air. When no position for feet is shown they are understood to be together. On the next spring, (2) states traveling to the right and landing is on the right foot only. The 'S' for step, used after the indication (6), states weight transference to the left on the left leg as the right leg straightens. Finally, weight is shown to be on the left foot with the right leg off the floor.

The Sutton notation, Ex. 1471, visually shows the feet starting together, knees bent. For rising into the air the sign  is used under the airborne figure and the black oval sign to the left of this figure shows traveling forward. Landing feet together, knees bent on count 1 is followed by the oval sign for traveling to the right. Rising into air is again indicated before landing on the right foot. Note that the writer chose to show parallel legs, the left knee bent while in the air. Also included in this version are arm gestures. The oval sign for traveling to the left and the indication of 10 for a step onto the left foot are followed by the figure showing the new support. For publications requiring the full notation, the circular signs placed below staff are included to verify direction faced and

other details; for general practice the simplified version of Ex. 147m is used.

Ex.

147i

Benesh - 1956



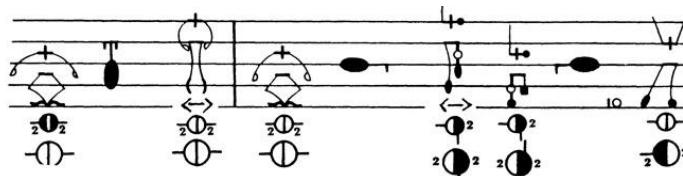
R. leg	u l f	\uparrow $\downarrow \cdot$ $\frac{\text{---}}{\text{T}}$	\downarrow \uparrow $=$	\uparrow \downarrow $\frac{\text{---}}{\text{T}}$	\downarrow \uparrow $=$	\uparrow $\frac{\text{---}}{\text{T}}$
L. leg	u l f	\uparrow \downarrow $\frac{\text{---}}{\text{T}}$	\downarrow \uparrow $=$	\uparrow \downarrow $\frac{\text{---}}{\text{T}}$	\downarrow \uparrow $=$	$(6)\uparrow$ $\frac{\text{---}}{\text{T}}$
Ex. 147j	Weight Front	●	(2)	●	(2)	●

Eshkol-Wachmann - 1968

[R. leg]	$(\ddot{\text{1}})$ $\frac{\text{---}}{\text{T}}$	(2) $\frac{\text{---}}{\text{T}}$	$\frac{\text{---}}{\text{T}}$	(2) $\frac{\text{---}}{\text{T}}$	$\frac{\text{---}}{\text{T}}$	$\frac{\uparrow M}{\text{---}}$	$=$
[L. leg]	$(\ddot{\text{1}})$ $\frac{\text{---}}{\text{T}}$	(2) $\frac{\text{---}}{\text{T}}$	$\frac{\text{---}}{\text{T}}$	$\frac{\text{---}}{\text{T}}$	$\frac{\text{---}}{\text{T}}$	$(6)S$ $\frac{\text{---}}{\text{T}}$	$\frac{\text{---}}{\text{T}}$

Ex. 147k

Eshkol-Wachmann - 1987



Ex. 147l

Sutton - 1973



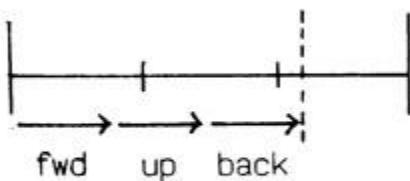
Ex. 147m

Sutton - Simplified Version

Sagittal Arm Sequence

Arm gestures using the sagittal dimension time span of two quarter-notes (crotchets) and a sixteenth (demi-semi quaver), 148a. The movement line begins on count 1 immediately after the bar line and the three horizontal lines representing the three directions (marked fwd, up and back) are passed through evenly, the arrival (destination) occurring at the start of count 3. The left arm, beginning with the elbow down, hand at the shoulder, also starts moving on count 1. It extends on a straight line to the point forward horizontal from the shoulder arriving on count 3 at the same time as the right arm.

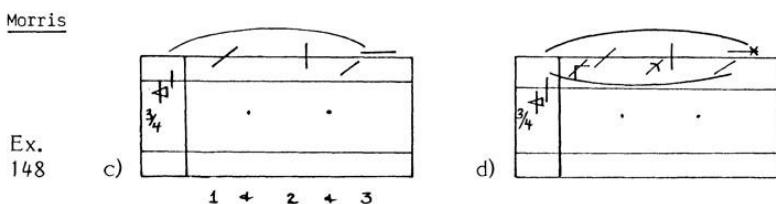
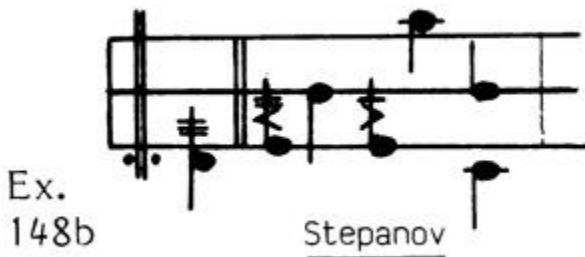
Timing



Ex.
148a

In describing this sagittal arm sequence, contributors to this book were asked to include whatever alternate descriptions exist in that system as an indication of the possibilities available to those who might prefer a choice of analysis. In brief, the choices range from description of the points in space through which the arms move; the straight or circular paths made by the arm; the flexion or extension of the arm joints (in this case the elbow and shoulder); or the trace design made in the air by the arm extremities (the hands) and where in relation to the body these designs are placed.

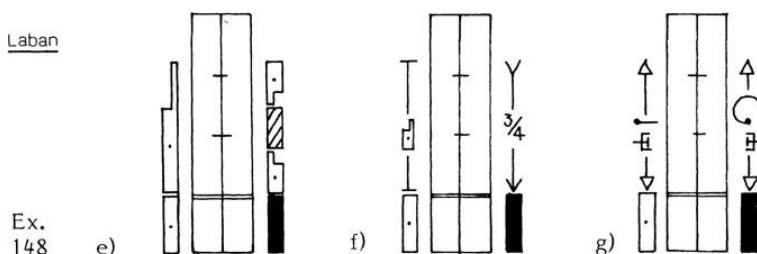
For Feuillet, Saint-Léon and Zorn no examples of this arm sequence are given since such gestures were not included in the style of dance recorded in those systems. Ex. 148b shows Stepanov notation for this sequence. Both arms start down, but no sign for backward horizontal; Step-direction was impossible for the arm and so did not provide for it. In fact, with practice, most people can ‘open’ the shoulder and so achieve backward horizontal. In the Stepanov ballet scores the ‘back’ arm in an arabesque is written as sideward. The progression for the left arm is shown by three separate notes; firstly, in the direction of forward low, but diminished with two degrees of flexion at the elbow, then forward low but augmented, the elbow now being flexed only one degree. The arrival of the left arm forward horizontal is indicated without any flexion.



Morris indicates the right arm as vertically down (use of the lower line on the staff). The left arm is also down but the elbow is totally flexed. The directions for the right arm sequence, forward, vertically up and back, are bowed to show fluent movement. A similar bow for the left arm shows when the movement to forward horizontal starts and ends. Note; placement of the movements between the dots which separate the beats. The counts, added in Ex. 148c for clarity, are not usually written. Ex. 148d shows a more detailed version in which the direction of the left upper arm is shown to rise as the elbow becomes less and less flexed.

For Labanotation the standard description of directional destination is given first, Ex. 148e. The right arm starts down, the left arm is shown to be 'place middle', i.e. the hand (the extremity) at the center point of direction for the arm (the shoulder). Starting on count 1, the right arm symbols are

shown by their length to take the same amount of time to move to the three directional points (forward, up and backward) ending at the start of count 3. The speed of the movement to these three points is even, as visually evident from the signs. During this same time span the left arm moves directly to the forward horizontal point, arriving also at the start of count 3.

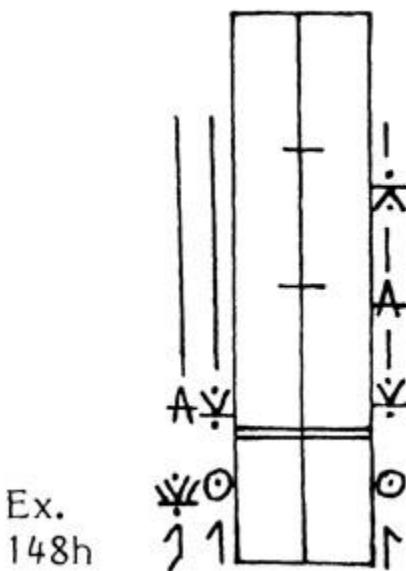


An alternate Labanotation description, given in 148f, focusses on the paths made by the limb extremities, (the hands). The right arm makes a 3/4 backward somersault path while the left arm moves on a straight forward horizontal path. Another description is that of the design, or trace pattern, made by the limb extremity. In Ex. 148g Design Drawing indicates a pictorial representation of the 3/4 circle for the right arm, drawn as if on a surface to the right of the performer: for the left arm the path is drawn as though on a surface to the left. The black dot indicates the starting point for the design.

An anatomically-based description is given in Ex. 148h, the movement being in terms of flexion in the joints. For the right arm the starting position is with the shoulder in its normal state, i.e. totally folded, the ‘normal’ sign ? being used in a way comparable to a ‘zero’. An ‘abduction’ into the sagittal forward direction to 90° raises the arm and is followed by

unfolding which ‘opens’ the armpit fully thus raising the arm up. The movement continues to the point of 90° backward ‘abduction’. Duration lines show continuous movement ending on count 3. The left arm starts with ‘normal’ shoulder and total elbow flexion (folding). As the elbow unfolds, the shoulder opens to the 90° forward ‘abduction’ ed actions of the left elbow and shoulder which produce the forward horizontal, straight-line movement. Such an anatomical description is used when emphasis is on limb and joint action, i.e. changes in relation to other body parts.

Laban

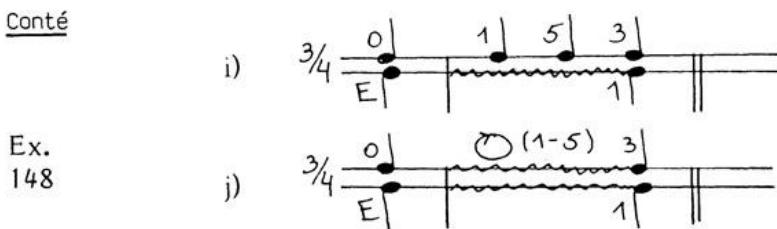


Depending on the purpose for which movement is being recorded, any one of these descriptions might be chosen. Further choices exist in Labanotation such as motion toward

or away from a point in space, a person, or a particular state or relationship. The components of a movement to be featured (emphasized) or those requiring lack of emphasis can be indicated. The descriptions selected for a dance score depend on the concept, the intent or purpose of the choreography.

In the Conté system two descriptions are provided. In Ex. 148i the right arm starts at 0 (down), moves to 1 (forward), then up to 5 and back to 3. Each direction is shown to take the time of a quarter note (crotchet). Conte's standard timing is to arrive on the beat, therefore the first part of the movement must be modified if it is to start on the beat, rather than arrive. For the left arm the letter 'E' indicates that it starts with the hand at the shoulder. The wavy line indicates sustained movement which ends at 1 (forward) on count 3. (See [page 174](#) for detailed timing). Ex. 148j gives an alternate way of writing this arm sequence. The indication for a circular movement is written above the right arm line and the directions passed through are given in brackets, the destination being the same as in Ex. 148i.

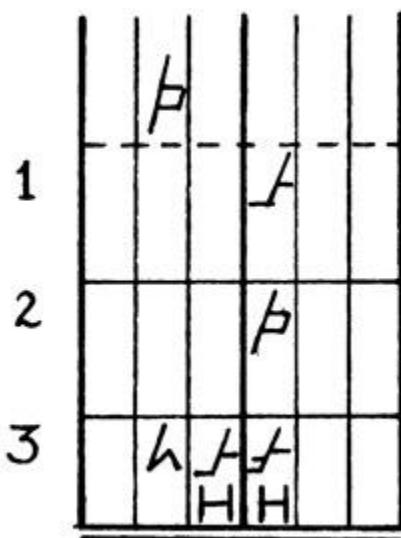
Conté



In the Loring version no direction is given for the starting position, arms are assumed to be down, but the left lower arm is shown to be up (maximum level). On count 1 the right arm moves forward to 90° level, then up on count 2 and backward

to 90° level on count 3. For the left arm the empty spaces for counts 1 and 2 indicate that the arm is moving during that time to the destination stated on count 3. The upper arm is shown to end forward horizontal while in the lower arm column a cancellation of the previously stated flexion states that the lower arm is ‘normalized’. The ‘H’ indicating hold shows that the movement must finish at the start of count 3.

Loring



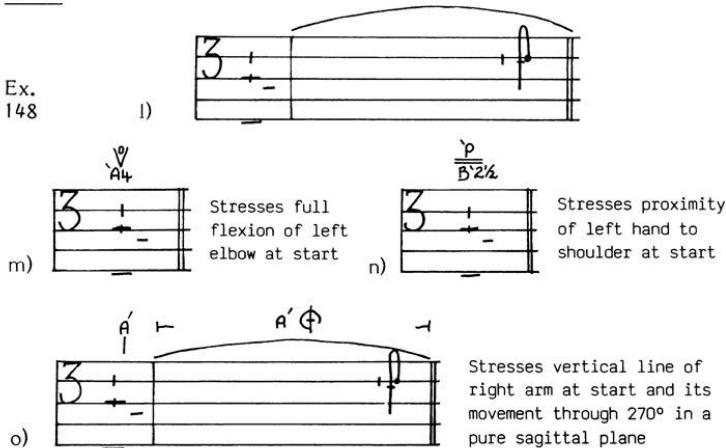
Ex. 148k

Exs. 1481 - p) give Benesh versions of the sagittal arm sequence. While there are no alternate analyses for the movement itself, particular aspects can be stressed by placing indications above the staff. For these, letters represent body parts and a comma placed on the right or left side of the letter

denotes a right or left body part. In 148m the emphasis is on full flexion for the left elbow: 'A represents the left arm, 4 is the elbow and the sign above indicates an angle of 0 degrees. Ex. 148n stresses proximity of the left hand to the shoulder, 'P representing the left hand, B'2½ the shoulder and the sign = means skimming, i.e. near to. In a similar way other aspects can have attention drawn to them by use of letters, numbers and particular signs which provide additional instructions.

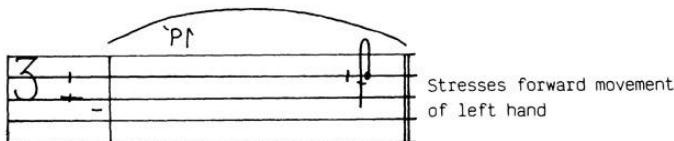
Benesh

Ex.
148



Benesh

Ex.
148p



The sagittal arm movement in Eshkol notation, Ex. 148q, indicates the right arm starting down and 'rising' 6 units in coordinate (0). The left arm starting with upper arm down, lower arm up, progresses to its destination through the upper

arm ‘rising’ 2 units and the lower arm ‘sinking’ 4 units, both in coordinate (0). These actions result in the arm straightening, ending forward horizontal. An alternate description is given in Ex. I48r. The right arm movement remains the same but the left arm is described more simply. The starting position for the upper arm need not be stated, the direction down is understood. The destination to the point ‘zero-two’ is shown to be ‘M’, i.e. maximum movement, the dot placed above the position states that the distal end of the limb draws a straight line to the position shown.

Eshkol

L. arm	1	(4)	↓4		
	u	(0)	↑2		
R. arm		(0)	(0)↑6		

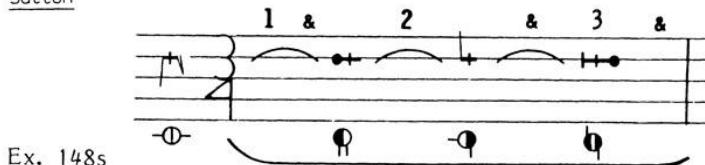
Ex. 148

(D)

L. arm	1	(4)	[$\frac{2}{0}$]M	
	u			
R. arm			0↑6	

r)

Sutton



Ex. 148s

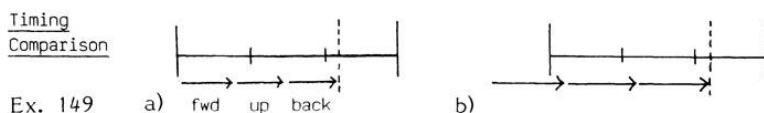
Ex. 148s shows the Sutton version of the sagittal arm circle. The starting position shows only the arms. The small bow shows that the movement starts on count 1 and arrives with the right arm forward between the ‘&’ and count 2. Next, the arm is on its way upward arriving between count 2 and its ‘&’ it then moves on to arrive backward on count 3. The left arm which visually started with the hand near the shoulder is shown to arrive forward on count 3. Not evident is the instruction that it should be moving all the time, however, the

fluency of the whole movement is shown by the longer bow underneath.

The circular signs beneath the staff indicate how near or far the limb extremity is from the vertical ‘shaft’ surrounding the body, white indicating within that shaft, black meaning out beyond that shaft. The small ticks verify the arm directions pictorially showing forward, sideward, backward, etc. (see page 45).

Comparison of Timing

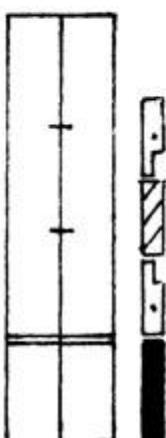
In this section, a comparison is made between the timing of 148a (given on page 168 and repeated here as 149a) and 149b. For this comparison only the right arm circle will be used and each a) example takes the timing of Ex. 149a, each b) example that of 149b.



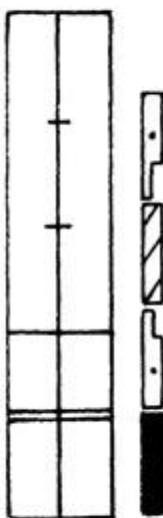
In the Stepanov system such subtleties in timing were not considered. In Labanotation the start of the movement symbol indicates when the movement begins; where the symbol ends shows when the movement ends. In Ex. 150a it can be seen that the movement forward begins on count 1 and arrives at the start of count 3. Between these counts the movement is quite evenly spaced, as seen by even lengths of the symbols. In 150b the arm rises forward during the 3/4 of the beat before count 1 and arrives on count 1. It moves immediately up arriving on count 2 and then backward arriving on count 3.

As before, the timing is completely even, as seen by the even lengths of the direction symbols.

Laban



a)

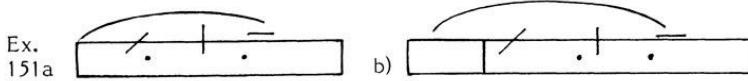


b)

Ex.
150

The Morris system makes use of a bow to indicate phrasing, the movement starting sooner if the bow begins sooner. Ex. 151a shows the movement starting on count 1. In 151b the arm rises before count 1; what is not clear is how much before. The question comes up as to whether the bow also indicates equal duration for the each part of the movement or only a fluent phrasing.

Morris



Ex. 152a shows the Conté notation written with more precise attention to specific timing. The fact that the music note indicates the moment of arrival still poses a problem in showing a movement that must begin rather than end, on the beat. Through the use of dotted eighth notes (quavers) the proportion in timing is closer to that desired, but now the movement ends on the count of 2 and not on count 3. Two versions showing that the movement starts before count 1 have been given. In Ex. 152b the numbers for the directions show arrival at intermediate points between 0 and 1, 1 and 5, 5 and 3, before ending at 3 (backward horizontal). The note values indicate when arrival at those points should occur and the wavy line specifies fluent, continuous movement. In 152c timing is organized so that focus is placed as soon as possible on the main directions of 1, 5, and 3, these points being reached on the ‘off beat’.

Conté

Ex. 152

a)

b)

c)

For Benesh notation a bow is also used above the notation to indicate movement before the first notated movement or before the first count. In Ex. 153a the movement written at

the end of the measure starts on count 1 and continues through to count 3. Since 3/4 metre is indicated and the drawing of the movement is at the end of the measure, it is understood to finish on count 3. To indicate exactly how much before count 1 the movement should start, the timing subdivision signs are used, as in Ex. 153b. An even movement progression from start to finish is understood.

Benesh



Ex. 153a

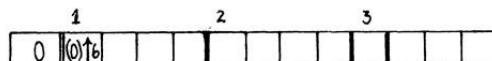


b)

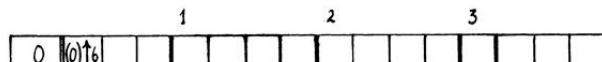
In the Eshkol-Wachmann system timing is comparable to that used in the Laban system in that regular lengths are used on paper, the subdivision units being as small or as large as needed. Ex. 154a shows the arm movement starting on count 1 and continuing until the black vertical line just after count 3. A smooth progression through space is understood. In 154b the movement is shown to start sooner but to end again on count 3. Counts have been added here to facilitate reading.

Eshkol

Ex.
154a R. arm



b) R. arm



Ex. 155a shows the arm circle in Sutton notation as before, starting on count 1 and concluding on count 3. The bow shows the movement to be evenly spaced. Arrival exactly on count 3 rather than some-where during count 3 is indicated by the ‘&’ count written after count 3 above an empty staff. For the timing of 155b, the bow starts before the count of the ‘&’ anacrusis; the arm circling again ends exactly on count 3.

Sutton

Ex.
155

a)

A musical staff with four horizontal lines. Above the staff, the numbers 1, &, 2, 3, & are written. Below the staff, there are four vertical stems pointing down, each ending in a small circle. A curved line connects the first three stems. The fourth stem is positioned below the third stem. Below the staff, there are four small circles labeled -Φ, Φ, -Φ, Φ from left to right. A long horizontal brace is positioned under the stems.

b)

A musical staff with four horizontal lines. Above the staff, the numbers &, 1, &, 2, &, 3, & are written. Below the staff, there are four vertical stems pointing down, each ending in a small circle. The first stem is positioned below the &. A curved line connects the first three stems. The fourth stem is positioned below the third stem. Below the staff, there are four small circles labeled -Φ, Φ, -Φ, Φ from left to right. A long horizontal brace is positioned under the stems.

From these examples we can see that, in some systems, indication of equal timing between points is simple; in others, particularly music note systems, it is not so easy. Conversely, when a subtle space-time relationship is used in a simple arm circle such as featured here, some systems cannot show such variation in a simple manner but must break the movement down into sections with specific timing indications. A full exploration of timing must be left to another book; this is only a first investigation of this element of movement.

To summarize, with regard to the timing as illustrated in Exs. 149a and b), we see that the Stepanov system was not developed to show

timing this precisely. The Laban system is very flexible, being able to pin-point both durations and the moment of departure and arrival. The Conté examples illustrate possible variations in timing, however, much analysis is needed for what, in some other systems is indicated quite simply. Loring shows in a general way the required timing: therefore, no specific breakdown in timing has been given here for his system. In both Morris and Benesh, the movement starts where the bow starts and ends on the count where the ending position is written, thus their timing follows that established for this arm sequence. However, Morris does not have signs for subdivisions of a beat. Timing in Eshkol is similar to Labanotation in its use of marked-off lengths, and thus is quite correct. Sutton timing is comparable to Morris.

Chapter Seven

Conclusion

Scope of Notation Systems

For many systems of dance notation only one book on the system has been published, books which provide little more than a first exposition of the system, comparatively brief explanations, few examples and no reading material. Even though the system itself may have been the result of careful thought, much application and practical use must take place before it can be considered tried and its suitability proved.

Basic Premise of Systems

In an examination of each system, the attitude of the inventor toward movement must be taken into consideration. These attitudes vary widely. What approach to movement is used? On what point of view is the system based? What style of movement is principally featured? A ballet-trained person, for example, tends to base his/her system on that style of dance. Which aspects are explored in depth and which glossed over superficially? Are only simple actions covered, or are the less usual, the more complex also given?

Loring's book is interesting in that though he gives signs for dynamics, breathing, somersaults, and even for repeats showing a change from an introvert to extrovert performance of a given movement, he gives no examples for many simple

patterns such as walking, skipping, jumping or well-known ballet steps. However, Stepanov and Loring, both originally ballet dancers, gave ballet no consideration in developing their systems; rather they sought to start from basic human movement, the skeletal possibilities.

Systems which concentrate on an anatomical approach to recording movement tend to skirt over familiar locomotor patterns such as skips, galops, etc. They are usually concerned primarily with articulation of the joints of the body, the angle or degree of motion in a joint, the relationship of one limb segment to its neighbour. This is largely true of Eshkol, Loring and Massine (Stepanov). Others see movement only from the outside, recording the ‘picture’ or visual design made by the body or by limb extremities moving in space. Obviously the stick figure/visual systems take this point of view. In the Laban system a wide choice of movement description exists as a result of contributions by many different movement specialists. In other systems there has been an increasing interest in providing alternative descriptions to the standard way presented by that system, the result of a growing awareness of needs other than those for which the system was invented.

Importance of Timing

Though timing (duration of movement, subdivision of a beat, phrasing, etc.) is so much a part of dance, it is interesting to note to what extent timing is neglected in most systems, even those based on music notes, which might well be expected to give timing prime importance. In most systems timing is an additional indication which is usually given only general

consideration. In the early days, the Benesh system only introduced timing after six months' instruction. Massine championed the Stepanov system because music notes gave the time values, yet when he used it for his choreographic course, subsequently published as a book, he completely omitted timing in the notation of his studies on compositional ideas, every movement being indicated with a quarter note (crotchet). His focus was completely on indicating placement of body parts. Timing is viewed by some as part of the way in which a movement is performed; thus, together with dynamics (the ebb and flow of energy), it is given specific consideration only much later in teaching dance. For many systems a general indication of timing is considered enough.

Degree of Analysis in Description

In the analysis and recording of movement how much detail needs to be written? What level of description is required? Where is the dividing line between too little detail and too much? In notating an ordinary step is it necessary to show the leg extending into the direction of the step before weight is taken? Is this preparatory gesture important? Should it be featured as part of the dance style - as in an elegant, imperious balletic walk in which the foot points each time before contacting the floor? In some systems the only way of showing the direction of a step is by giving the preliminary leg gesture. To cite another example, if the leg is to make a gesture with the heel contacting the floor, is it necessary to write the ankle flexion which must occur a fraction before the touch takes place, or is it enough just to state contact of the heel in the appropriate direction? Ankle flexion written before such a heel contact suggests that this flexion is to be given

more importance and so should be stressed in performance. Does the way in which a movement is ‘spelled’ indicate the manner of performance, or is a particular ‘spelling’ merely an intrinsic part of the basic structure of the system?

Every well-developed system of movement notation should include simple conventions for simple everyday actions such as walking, jumping, etc. Why write out the whole physical process necessary to produce a jump when it is such a well-known, natural action? Such detailed ‘spelling’ is needed only when an unusual, stylistic manner of performance is required, or where the physical technique involved needs scientific study. In dance training, for example, when one is learning to master difficult feats such as pirouettes, the detailed ‘spelling out’ of movements can be a great advantage.

Shorthand devices are as practical for dance as verbal shorthand is

for business, for lectures, or whenever rapid notes must be taken. But there must also be a ‘longhand’ in which all fine points can be elucidated, a degree of specificity in writing comparable to the careful, detailed wording of a legal brief in which no doubt or margin for error can be allowed.

Because most of us are basically lazy, we do not like to look at a cluttered score. As readers or writers we find ourselves asking: “Is all this detail necessary?” The notator is faced with such questions as: “Who will read this score and for what purpose? To get a general impression of the work? To study it in depth? To reconstruct the sequences? To perform them?” If a writer knows the particular use anticipated for a notation, he/she can choose the degree of detail accordingly.

When a dance work is being revived solely from the score by someone who has never seen the work and is unfamiliar with the choreographer's style, every detail written is 'squeezed dry' to recapture the essence of the work, the intent, movement initiation, focus, dynamic quality, and so on. At such times a full, detailed score is not only welcome but essential.

Redundancy and Redundancy Avoidance

In recording dance, how much detail can be left out without its omission adversely affecting complete clarity of expression of a movement? This is a major question facing practitioners. What knowledge can the writer take for granted on the part of the reader in order to keep a score simple, uncluttered and without unnecessary detail? What, indeed, is unnecessary detail? If a piece is known to be in the classical ballet style, can the degree of outward rotation of the legs be taken for granted? Will people know that in 5th position the feet are very turned out, whereas in walking steps which occur between dance sections (entrances, exits, etc.) the feet are much less outwardly rotated? That for an arabesque in profile the supporting leg is not turned out at all? Must the change in leg rotation be stated every time it occurs?

To keep scores simple Benesh stressed redundancy avoidance. If from two pieces of information a third can be deduced, there is no need to state the third. In contrast, Laban advised: "It is better to record too much detail than too little. If the detail is not recorded, the reader cannot know later on what was left out." A simplified version can be made from a full score, but not vice versa. Because the body works in a

particular way, Noa Eshkol and her colleagues take for granted details of performance that can only be interpreted one way. However, Labanotators have learned from experience that the process of reading and reconstruction is often speeded up when additional information is on hand; less time is taken up with puzzling out what is intended. This is particularly true of unfamiliar and complex movement. It is interesting to note that practitioners of redundancy avoidance have found that too much streamlining allows errors to creep in. Additional information acts as a valuable countercheck. For instance, if the statement of degree of turn is not clear or is not accurate, the addition of the new front which results from the turn, clarifies the matter. Such additional information serves as a practical function in any system.

Channelled View of Movement

In what way should movement be analyzed? According to one's initial dance training and experience, movement can be viewed very differently. A person who has studied only one form of dance inevitably looks at other movement from the perspective of the learned form. A description of dance movement using a 'foreign' analysis will seem strange and even inappropriate despite the fact that it is completely correct. Readers understandably want the notation to 'talk their language', yet this language may be limited in that it is not appropriate or even applicable to other dance forms, other types of movement. Training in one notation system may also affect one's view of movement, what one sees as important. These are considerations to which thought must be given in

connection with evaluating the practical application of movement notation systems.

Summation

In this survey of systems we have seen examples of detailed movement analysis and examples of virtually no analysis at all. We have seen some systems which start very simply and gradually expand. We have also seen how one system, the Eshkol-Wachmann, which started with extremely detailed movement analysis and description, has now introduced 'simplifications' for movements where specific detail is not needed.

In comparing systems we need to consider what each sets out to accomplish. In several cases, the design of the system has dictated the extent to which fine detail can be recorded. Some are obviously limited and the users content that this be so. Some are never advanced to the stage of tackling complex movements and recording all the facts that need to be known for higher level movement study. Others have been developed to include various types of movement in addition to the one on which the system was initially based.

Practical Use

In the last analysis one should not ignore how its practitioners use a particular system. As we saw with Stepanov, his system itself allowed for much wider use in describing movement, yet it was applied initially to classical ballet and fell into disuse when choreography moved away from the classical vocabulary. The need to analyze unfamiliar movement gives

every notator pause, since it means decisions have to be made concerning what is actually taking place, how it should be described, what is central to the movement and what may be left out. In recording familiar forms, e.g. ballet for notators trained in ballet, or a particular form of folk dance for one intimately familiar with that form, the writer need not analyze the movement because he/she

already knows what is important, i.e. what is the ‘core’ of the movement as distinct from any personal mannerisms or the interpretation of a particular performer, details which are not to be recorded. If, for example, in ballet the performer has less turn-out in the legs than desired, if the leg is not as high in arabesque as it should be, etc., the notator will write what should occur and not the performer’s limitations. Anyone unfamiliar with ballet will not know what is standard and will record what is seen.

Personal Affinity to Types of Systems

In my years of experience in working with notation, studying other systems and observing how the general dance public reacts to specific systems, I have realized it is unlikely that one system will ever satisfy all. Quite apart from the gap existing between those who want a simple memory-aid and those who seek great detail, there is the fact that some respond only to visual impact of movement and so favor a pictorial representation, while others are interested in the ‘inner workings’ of movement. Some people are not interested in analyzing movement to discern subtle differences; to them such things are not the purpose of dance notation. Others want to know how a particular action can be viewed: they believe that a different intention behind a

movement can, and should, be indicated on paper because the right choice of description can affect the reader's understanding and hence, subsequent performance of that movement. Therefore, the choice of how that movement is described is important. Mathematical minds look for precision, for logic in movement description. For them, the attitude: "We write it this way because it is easier" is unacceptable.

We can see from this survey that there is a strong pull toward the visual representation of movement on paper and, at the same time, an equally strong need for logical movement analysis and exact statement of facts.

The Time Factor in the Notating Process

In any system writing movement takes time. This is also true even when verbal descriptions are used, despite a writer's fluency in writing. How long does it take to write down a movement sequence? The time needed to record a dance depends on the complexity of the movement, the amount of experience (mainly practice) that the notator has had, and the level of detail needed in the score. Even for those systems which are used for quick memory-aid descriptions, the recording process cannot be done in a flash. For every notator there will be thousands of readers, therefore, it is worthwhile for a writer to take the time and care needed to produce accurate notation. Accuracy is of particular importance with respect to published materials and professional scores. For one's own personal use, material can be speedily jotted down; accuracy is not important as one is likely to remember a great deal of the detail. But if such notes are too sparse and are not

referred to for a considerable time, then inaccuracy and lack of detail may render them worthless.

Experience of Others

There used to be a car advertisement: "Ask the man who owns one." People who have no knowledge of dance notation systems, of the whole process, are indeed at sea and have no way of judging which system is best, or which system would best suit them. There are now five 'living' systems which have been in use for some time. Thus, it is possible to speak to practitioners, to dancers, to choreographers and to others who have been exposed to these systems, to find out in what ways and to what extent a particular system has been used and what have been the results. The tight partnership of former years among practitioners of different systems is now dissolving. The attitude: "We are Eskimos (Malaysians, or whatever nationality) and therefore must have an Eskimo (Malaysian, etc.) system" is, we hope, fast disappearing. It comes as a surprise to most people to learn how many systems have evolved. Since 1928 there has been, on average, a new system appearing every four years. Perhaps the reader will agree that we do not need new systems at this point; it would seem as though the wheel were being reinvented again and again.

General Information

The book, DANCE NOTATION - The Process of Recording Movement on Paper, not only presents the historical development of notation systems but also provides many facts concerning use of notation, practical information about

notation as a career, comparison between notation and video, facts concerning copyright, developments in use of computers, and so on. Every dance student should know about dance notation even if study of a system is not part of a curriculum. If such a study is included, then DANCE NOTATION will provide many important facts on the subject of reading and writing dance.

Appendix A

Movement Notation Systems - Chronological Order

Year	Name	Type of System	Country
Mid 15th C.	Cervera	Abstract (letter)	Spain
1588	Arbeau	Letter	France
1650	Playford	Words/floor plans	England
1671	Beauchamp (see Feuillet)	Track (unpublished)	France
1682	Menestrier	Floor plans (horse ballets)	France
1688	Lorin	Signs, figures, track, words	France
1700	Feuillet	Track	France
1720	Landrin	Words/floor plans	France
1751	Favier	Abstract/music	France
1762	De la Cuisse	Floor plans	France
1815	Despréaux	Letter	France
1831	Théleur	Abstract symbols	England
1832	Biosca	Floor plans	Spain
1852	Saint-Léon	Stick figure	France
1855	Bournonville	Words/signs/ (mss)	Denmark
1855	Klemm	Music notes	Germany
1859	Adice	Figure drawings	France
c. 1880	Manzotti	Floor plans (mss)	Italy
1887	Zorn	Stick figure	Germany
1892	Stepanov	Music notes	Russia
1892	Poli	Letters/numbers	France
c. 1910	Giraudet, A.	Letters/numbers	France
1911	Melik-Balasanov	Music notes	Russia
c. 1915-18	Zoder	Words (folk)	Austria
1919	Nijinsky	Music notes (mss)	Russia
1919	Böhme	Stick figure	Germany
1919	Desmond	Stick figure	Germany
1926	Alexander	Letters/signs	U.S.A.
c. 1926	Grimm-Reiter	Abstract symbols	Germany
1927	Peters	Diagrams/music	France
1927	Fischer-Klamt	Abstract symbols	Germany
1927	Kool	Stick figure/ music/plans	Germany
1928	Laban	Abstract symbols	Austria
1928	Parnac	Stick figure	France
1928	Morris	Abstract symbols	England
1928	Sotonin	Abstract symbols	Russia
1928	Wailes	Abstract/pictorial/music	England
1930	Humphrey	Stick figure	U.S.A.
1931	Conté	Music notes	France
1931	Meunier	Word abbrev./signs	France
1932	Chiesa	Music notes	Italy
1934	Cross	Letters/signs/numbers (thesis)	U.S.A.
c. 1935	Zadra	Abstract symbols	Italy
1939	Babitz	Visual (stick figure)	U.S.A.
1940	Korty	Figures/signs	Germany
1940	Ruskaja	Abstract symbols	Italy
1940	Lissitzian	Stick figure	Russia
c. 1940	Schillinger	Abstract (ms)	U.S.A.
1942	Craighead	Stick figure (thesis)	U.S.A.
c. 1945	Nikolaïs	Music notes (mss)	U.S.A.
1946	Bourgat	Abstract symbols	France
1946	Saunders	Words	U.S.A.
1949	Zganeč	Music notes	Yugoslavia
c. 1950	Kurath	Abstract symbols	U.S.A.
1950	Conev (Tsonev)	Words/abstract signs	Bulgaria
1951	Arndt	Stick figure	Germany
1951	Kahn	Abstract symbols	U.S.A.

1952	Birdwhistell	Abstract symbols	U.S.A.
1952	Raiz	Floor plans	U.S.A.
1954	Misslitz	Stick figure	Germany
1955	Loring/Canna	Abstract symbols	U.S.A.
1955	Kattarova	Abstract symbols	Bulgaria
1956	Benesh	Visual (abstracted stick figure)	England
1956	Harrison	Pitman notation	Scotland
1956	Proca-Ciornea	Letters/abstract	Romania
1957	Jay	Stick figure (ms)	U.S.A.
1958	Eshkol/Wachmann	Abstract (numbers)	Israel
1959	Fee	Abstract symbols (ms)	U.S.A.
1960	Paige (Arpegian)	Abstract symbols	U.S.A.
1964	McCraw	Music notes	U.S.A.
1965	Halprin	Floor plans	U.S.A.
1965	Agolli	Abstract/letter	Albania
1965	Suna	Abstract/figure	Latvia
1968	Blom	Letters/signs	Norway
1968	Schwalb-Brame	Abstract symbols	U.S.A.
1969	Vasilescu/Tita	Abstract/music	Romania
1971	Haralampiev	Music notes	Bulgaria
1973	Bakka	Abstract symbols	Norway
1973	Pajtondziev	Music notes/ abstract	Yugoslavia
1973	Judetz	Letters/signs	U.S.A.
1973	Sutton	Stick figure	U.S.A.
1974	Escudera	Abstract signs on music staff	Spain
1974	Fitz	Abstract symbols	U.S.A.
1978	Blair	Word abbrev./ simple signs	U.S.A.
1979	Jorgensen	Abstract symbols	Denmark
1981	Pavis	Abstract/floor plans	France
1985	Wu/Gao	Abstract (letters)	China
1986	U Chang Sop	Abstract symbols	North Korea

Appendix B

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