Labanotation: An Alternative System of Analyzing and Recording Movements

by Sal Murgiyanto

The preservation of the traditional performing arts is necessary not only for the economic development of a country but also for upholding its cultural identity. But how can the traditional performing arts, such as the dance which uses movement as its basic medium, be conserved?

Many believe that keeping tradition alive is one way of preserving the dance. This is true. However, the dance partakes of the quality of a living tradition; it is dynamic in the sense that it undergoes adaptations as it is handed down by one generation to the next. Traditional arts continually grows and develops. Sometimes, it does not only gradually change but also vanishes and is forgotten, to be substituted by another tradition.[1]

The situation is true not only in Asia but also in Europe and the United States of America a few decades ago:

> **The history of dance is tradition. There is virtually no written record or exact knowledge of what dance has been in the past . . .**
>
> **In music, we have access through printed scores to the accumulated wealth of nearly every period from early counterpoint to present day atonality. In painting, thousands of galleries and museums provide store house for original works and good reproductions. But dance knows its past only from occasional sketches, painting and photographs, statically showing one posture from a composition that originally consisted of hundreds, and from word pictures which are appreciative rather than technically precise. Each perform a dance is a swan song, unrecorded and lost to posterity except in the undependable memory of those who participated or attended.[2]**

The dance is distinguished from the other arts by its transitory quality as it vanishes by the end of its performance. Consequently without a proper system of documentation and notation, the preservation, reconstruction and the study of the dance of the past is almost impossible. For example, in 1975, the court of Yogyakarta tried to reconstruct the sacred Bedaya Semang dance which was created by Sultan Hamengku Buwana II at the end of the 18th century. They had the music score, but not the dance notation, hence despite three years of work, they were unable to reconstruct some parts.[3]

In recent years, film and video equipment have often been used as a means to record dance. The advantages of a film or video are obvious, but advocating that through the use of movies, one can dispense with notation and that it is both easier to record and to reconstruct dance through motion picture is "obstructive in the highest degree".[4]

Sufficient distinction must be made between the film or video as an instrument and as an art form. As an instrument, these recording devices should be in the hands of straightforward technical cameramen, not of a cinematographer, who will just record the dance.

The majority of dances are produced like an art film: the dancers are seen from the front, the side and above; a dance phrase is edited for a few feet of picturesque floating drapery, another for a view of a shapely calf.

> **"To call any such film a record is absurd, it cannot even be called a dance, since a dance is a formal entity, or it is nothing".[5]**

The camera inevitably records performance rather than the composition. The situation is clearly comparable to the record of a symphonic work and the printed score of the same piece. To study each individual part, the musicians need the written score. To obtain an idea of the finished work and how it should sound they turn to the recorded performance. In the same manner, the movie cannot take the place of the dance score, nor vice versa.[6]

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Therefore, dance notation – the use of signs and symbols to represent ideas which are expressed by movement–is necessary to preserve the traditional dance movement and composition.

Labanotation and Benesh Notation[7]

During the last five centuries, a good many dance notation systems have been invented. With few exceptions, no system has been used for a sufficiently long time or by a good number of people to leave proof of its value in the form of completed dance score.[8] Each system of dance notation has its advantages and disadvantages. If it is simple, it will not be able to notate the details but if it becomes too complicated, writing and reconstructing the movements take much time and energy.[9]

Only two systems of dance notations have gained popularity and have been used for a long time: Benesh Notation and Labanotation. Benesh Notation was invented in 1956 and was developed in England by Rudolph and Joan Benesh. It has gained a world reputation because of its usefulness and the relative ease with which it can be executed and read, especially in the ballet word.

Benesh Notation was first used by the Royal Ballet. It was then adopted by another British Company, the Ballet Rambert, and by ballet companies of other countries : the Turkish National Ballet, the National Ballet of Canada, the Zurich Opera Ballet, the Illinois Civic Ballet, the Wurtenberg State Ballet (Stuttgart), the Australian Ballet, the Royal Danish Ballet and the National Ballet of the Netherlands.[10]

The other universally accepted dance notation system is the Labanotation or Kinetography Laban, invented by Rudolf Laban in 1928. Before creating his dance notation, Laban founded a school in Munich to develop his theories of form of movement in space (*choreutics*) and of the *qualities of* movement (eukenetics). It was in his book **Schrifttanz** , first published in 1928, that he formulated his notation system, Kinetography Laban. His analysis of movement, based on spatial, anatomical, and dynamic principles, is flexible and can be applied to all forms of movement.[11]

Since Laban's original text was published, tremendous strides have been made in the development of Labanotation. In 1940, the headquarters of the Dance Notation Bureau Inc. was founded in New York. It was dedicated to furthering the art of dance through the use of the Labanotation system. Other branches in Chio, Philadelphia, London and Israel were soon opened. A Kinetographische Institute was then founded in Germany; the Laban Art of Movement Centre will as well Language of Dance, in England. In 1959, an international council of Kinetography Laban was held.

Dance notation is necessary to preserve the tradition dance-movement and composition.

In cooperation with similar centers in other countries, the Dance Notation Bureau in New York works for uniformity in the usage and practice of the system. Ann Hutchison, an expert in Labanotation from the Bureau, succesfully revised and expanded this system in her book ***Labanotation or Kinetography Laban*** (the new edition, 1970). Last year the Köln Opera Ballet managed to reconstruct the choreography of Kurt Jooss' ***The Green Table*** from the dance score notated in Labanotation in 1938.

The competition between these two systems of notation is still going on today. While the Benesh system has made its great gains in ballet, Labanotation has developed closer ties with the modern dance. It is taught and used in many of the American and European institutions of higher learning where dance is a major field.[12] Proponents of Benesh Notation maintain that their system is relatively easy, complete and accurate. The Labanotation practitioners, on the other hand, argue that a system that emphasizes speed must, by definition, lose accuracy and that the former assumes that the reader has a thorough knowledge of ballet techniques.[13]

Why Labanotation?

To find the right system of notation to be used for Indonesian dances, the Directorate of Arts of the Ministry of Education and Culture sponsored a National Seminar on Dance Notation in 1978. The seminar participants asked whether they ought to develop their own system of notation or to use a universal dance notation suitable to all styles of dancing and types of movement.

They agreed that it would not be difficult to invent a system of movement notation, but to create one which can efficiently be used as the alphabet and music notation is a different matter.[14] Three fundamental problems should first be considered, they stated: how to record complicated movement accurately, how to record it in economical and legible form, and how to keep up with the continual innovations in movement.[15]

After a thorough discussion, the seminar participants recommended that a universal notation system be used. This way, a dance score written in Jakarta can be read by a student not only in Bali or Irian Jaya but also in Bangkok and Manila. The participants agreed to adopt the Labanotation system for the following reasons:[16]

1. There is no need to invent a system of notation as this will take a long process and serious study. Moreover, a universally used system can facilitate the spread of the Indonesian dances outside the country.

2. Labanotation is comparable to writing longhand. Simple as well as complicated movements such as those of the Javanese and Balinese dance can be notated using this system. On the other hand, Benesh Notation is comparable to writing short-hand. It is simpler than Labanotation both in its symbols and its staves, but it cannot be used to notate Indonesia's complicated dance movements.
3. The difficulties encountered in practising Labanotation are comparable with those undergone in using the Latin alphabet. As with any kind of reading and writing studies, practice is required to attain fluency. Just as a first attempt at reading words results in disconnected syllables, so the first steps in reading dance notation are equally mechanical and unrelated to real movement. The disjointed steps and gestures of beginners are soon translated into flowing patterns, correctly phrased, when the relationship between the symbols on paper and the movement they represent becomes automatically understood.
4. Labanotation is an abstraction of idea of movement which is expressed in pictorial and directional signs and symbols, so reading it needs interpretation.
5. Some difficulties will be encountered in using any kind of dance notation, since dance is a complex activity. It exists in space as well as in time and the body, its basic instrument, is capable of so many simultaneous modes of action.

The seminar participants also accepted the suggestion of Dr. Soedarsono to use film, alongside with Labanotation, in recording the dance. He also recommended that, for certain dances, uniform-keys of movement notation must be agreed upon.

The education of the dance notator or kinetographer then must also be started soon, they said. A dance notator who is an expert in both writing and reading the dance score must have the experience of a dancer. In the future along with dancers and choreographers, a dance notator will become a respected professional in the field of dance, the participants claimed.

At present, Labanotation is taught to the students of higher dance schools such as the Indonesian Dance Academy (ASTI) in Yogyakarta, Denpasar, Bandung and the Dance Department of the Jakarta Institute of Arts.

Fundamentals of Labanotation

Labanotation offers two important features. First, the use of vertical staff to represent the body allows continuity as well as correct representation of the right and left sides of the body. Second, the use of elongated movement indicates the exact duration of any action.

Some basic principles of Labanotation are: [17]

1. Signs and symbols which are used represent the direction and level of the part of the body being moved.
2. Movement notations emphasize the direction or the destination of the movement: forward, backward, left, right, diagonal forward left, diagonal forward right, upper, middle, lower, rotate to the left, rotate to the right etc.
3. The human body is divided into two parts: left and right; each side is divided further into the limbs and other parts of the body: head, shoulders, arms, hands, fingers, upper torso, hips, upper legs, lower legs, foot etc.
4. Labanotation is written and read from the dancer's (stage's) side.
5. Labanotation is written and read from the bottom of the page up, if the book is held horizontally, in the forward direction, and continued to the right side.

The Action Stroke

A vertical stroke, called "action stroke", represents the occurence of a movement of some kind. Its interpretation depends upon the performer. If the writer wishes to be more specific he must add the necessary details.

A double horizontal line ═══ indicates the start, the beginning of a movement, and also the end of a movement or a dance.

A single horizontal line ——— indicates the beginning or the end of a movement phrase.

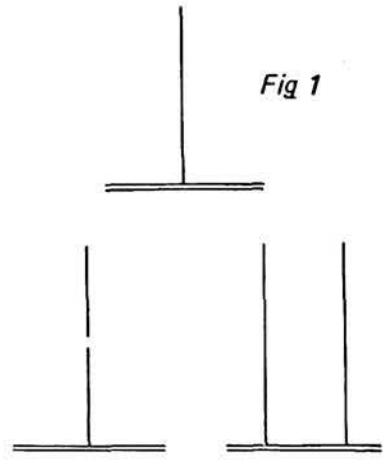


Fig 1

When two action strokes are written one after the other on the page, they occur one after the other in time. When they are written side by side, they occur at the same time. *(Fig 1)*

The Center Line

An action may occur on either side of the body. To show this, we draw a vertical line to represent the vertical center line in the body and place action strokes on either side of this center line. The vertical center line is centered on and connected to the double starting line. *(Fig 2)*

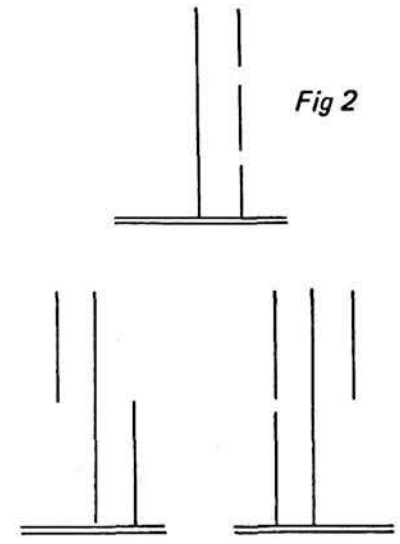
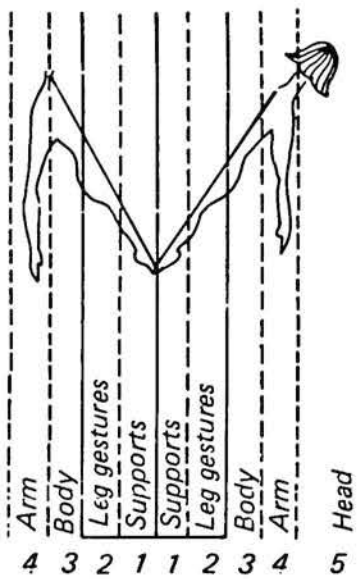


Fig 2

This vertical center line forms the basis of the vertical three-line staff on which structured description is written.

The Staff and Columns

Fig 3



Labanotation uses vertical three-line staff. This staff represents the body, the centre line being the centre of the body which is divided into the right and the left. Vertical columns on each side of the centre line are used to indicate the position of the main parts of the body. The movements of the legs and feet are written within the three-line staff while the movements of the torso, arms, and head are written outside. Within the staff there exist four major vertical columns (two on either side of the centre line because of the imaginary lines in between the centre line and the two lines at each side). In and outside the three-line staff imaginary vertical lines, parallel to the main staff lines, provide additional vertical columns as needed. Placing the movement indication in one of the vertical columns of the staff, shows the action of one of the main parts of the body.*(Fig 3)*

The Head Column.

The head column is written on the right side, slightly apart from the center. Where complex hand movements require additional columns, the head is placed farther out. The specific sign for the head is always used to identify the column.

First Column : Supports

Direction symbols placed in these columns indicate progressions of the whole body. The weight of the body normally rests on the feet, but it can also be supported by the knees, hips, hands, and even the head. In such cases, a sign for the specific active part of the body is placed in one or the other of the support columns.

Second Column: Leg gestures

The term"gesture" is used for the movement of a limb which does not carry weight. A direction symbol here describes a gesture of the whole leg moving in one piece. These columns are also used for the individual part of the leg: thigh, lower leg and foot as indicated by specific signs for those parts.

Third Column: Body

Direction symbols placed in the third column without a specific pre-sign describe movement of the "upper part of the body," that is, superior spinal movements used freely as an accompaniment to arm gestures. Movements of the whole torso, the chest, pelvis, shoulder girdle, etc. are written with the specific sign for those parts.

Fourth Column: Arms

A direction symbol in this column describes a gesture of the whole arm moving in one piece. The column is also used for individual parts of the arm, the upper lower arm, as indicated by specific signs for those parts.

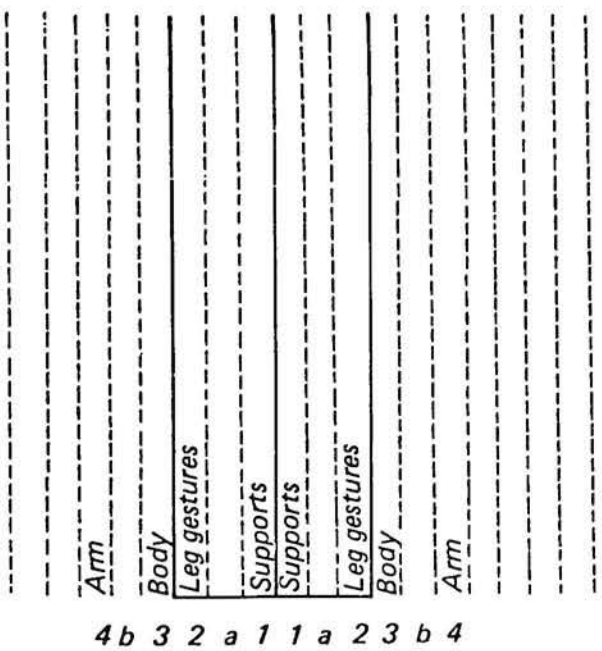
Columns beyond the fourth

Beyond the fourth column the pre-sign for a specific part must be given. The fifth column may be used for the lower arm, but more frequently it is used for the hand. When complex hand gestures occur requiring a description for fingers and palm facing as well as for the hand itself, additional space outside the staff is used, and the appropriate pre-signs are given.

Additional Column

Supplementary columns can be added as needed. These are placed outside the staff, as in the case of columns which indicate the handling of props, or within the staff if more room is needed for leg and body movements.*(Fig 4)*

Fig 4



Direction Symbols

The directions in space emanate from a central point--the spatial "center." This point is called ' "place" and is represented by a rectangle. Directions are judged from this point. *(Fig 5.)*

Symbols for directions are modifications of the shape of this basic sign, and shapes are pictorial in pointing to the direction they describe. *(Fig 6.)*

The Eight Main Directions

Fig 5

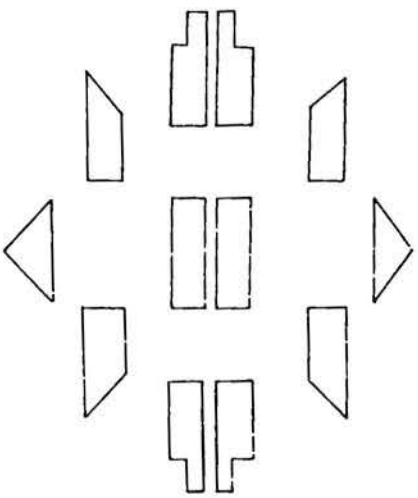
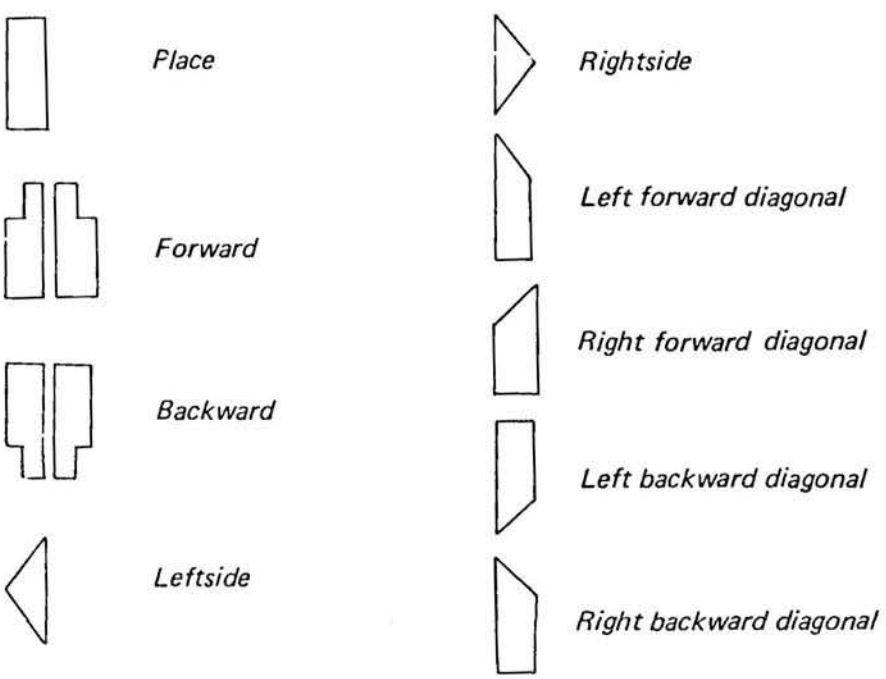


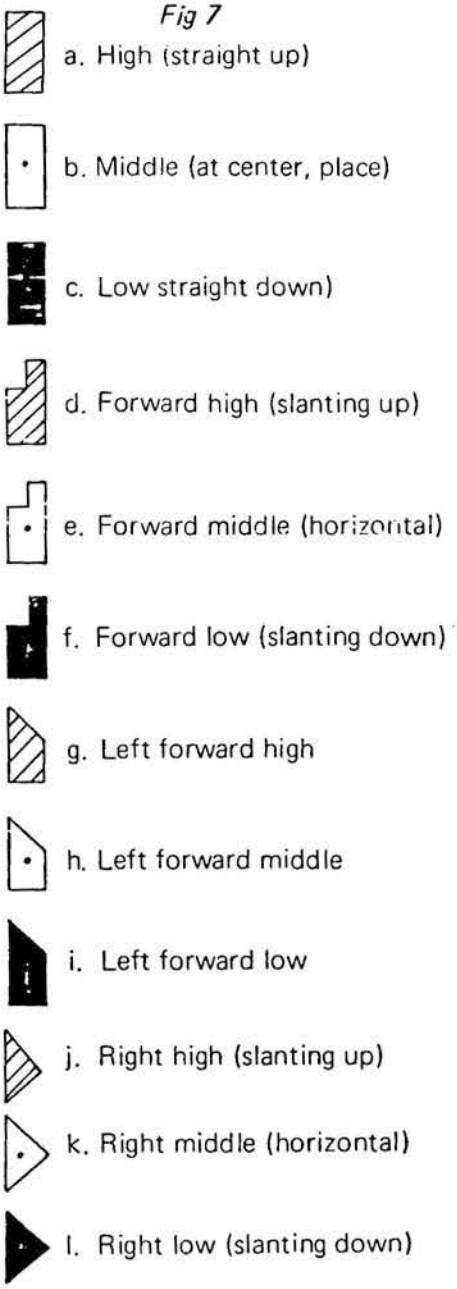
Fig 6



The Three Levels

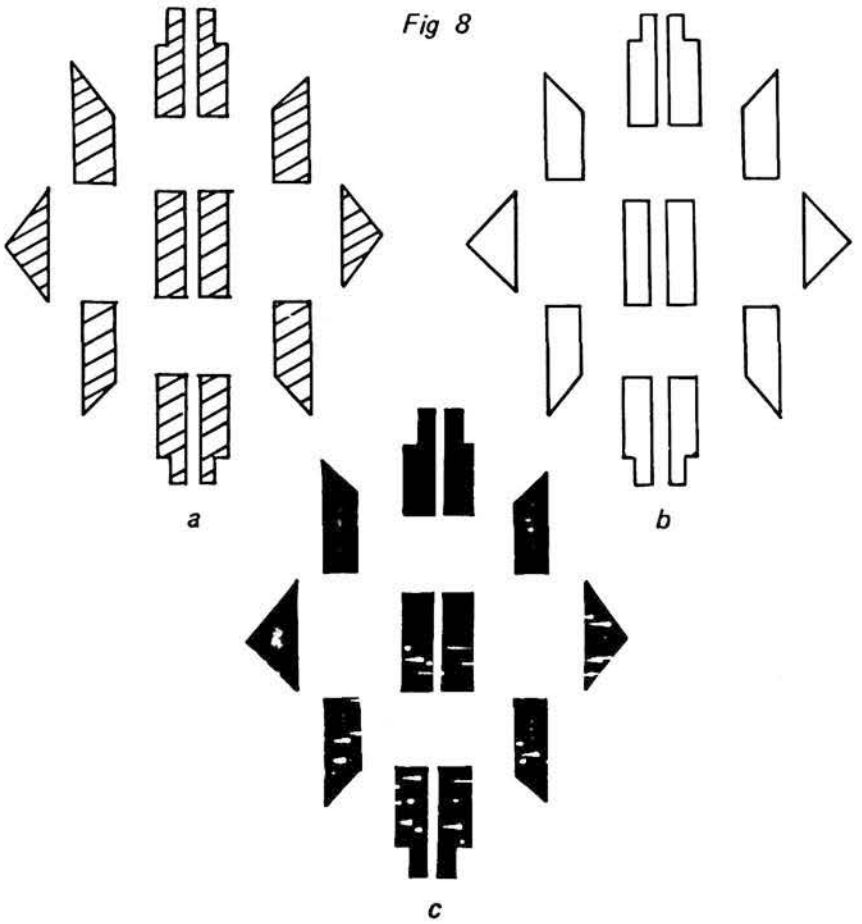
The level of movement - upward, downward, or horizontal - is indicated by the shading of a symbol. A movement into any direction can be horizontal, low, or high. Straight up is "high" (place high). Straight down is "low" (place low). Down moves toward gravity, with the gravitational force; up, away from it. The horizontal plane lines at right angles to both. *(Fig 7 and Fig 8)*

Fig 7



The Twenty-Seven Principal Directions

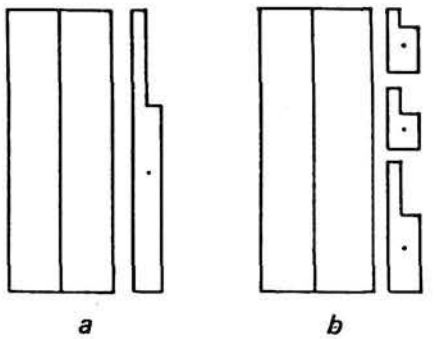
Fig 8



Timing

The center line of the staff is also the time line. When read from the bottom up, it indicates visually the flow of time. Movement indications placed side by side occur at the same time and may be compared to the notes of a musical chord. Indications placed one after the other occur sequentially. The sign "o" means hold.

Fig 9



The longer the action stroke or the movement symbol, the longer it takes to complete the given action, i.e. the slower the movement. The shorter the stroke or the movement symbol, the sooner it is completed, i.e. the faster the movement. *(Fig 9)*

The metered (measured)time, the recurrence of a regular basic beat (pulse) and the grouping of such beats into measures (bars) as in music are indicated by the small ticks placed at regular interval in the centre time line. Each tick marks the beginning of a new beat. The space between the ticks represents the duration of the beat. Because the amount of time occupied by each beat is regular, the distance allowed for each on paper must also be regular. A basic unit is taken for each beat. *(Fig 10)*

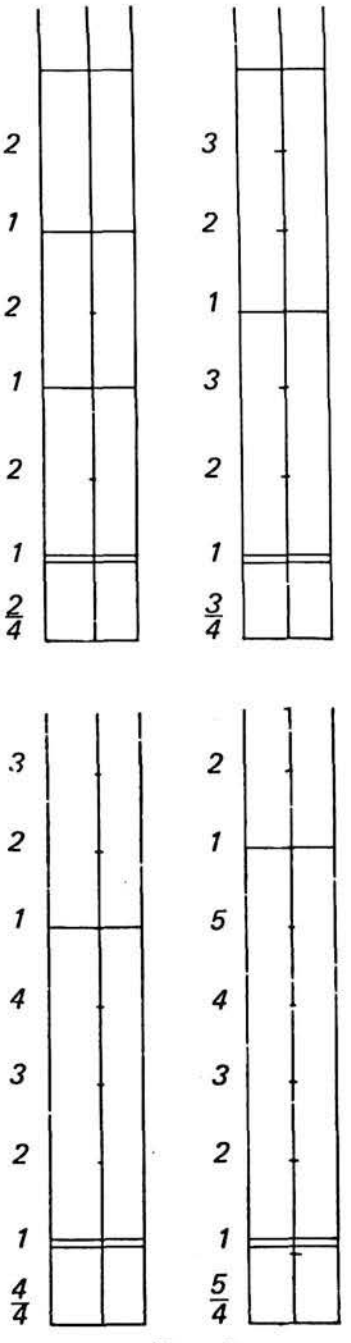


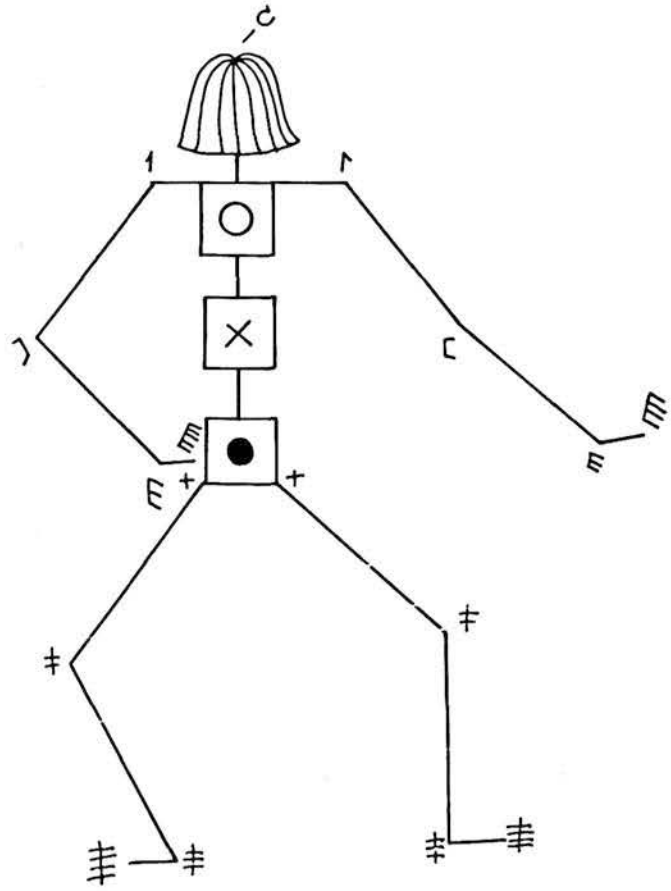
Fig 10

The Body Signs

In writing simple movements a simple staff is used, but to write complicated movement, one must use the expanded staff with some additional columns. In this case pre-signs are needed to represent specific parts of the body.

Some examples of the body signs are shown in Fig 11.

Fig 11



Body Areas

Whole torso

Chest (rib cage)

Pelvis

Waist

Parts of Head

Head

Face

Eyes

Mouth

Nose

For the Arms

Shoulder

Elbow

Wrist

Hand

Fingers

For the Legs

Hip

Knee

Ankle

Foot

Toe

Kinds of Steps

When the weight is on one foot, the other is free, just clear of the ground, as in ordinary walking. The weight should be transferred completely from one foot to the other. In middle and high levels, the knees are not stiff: the natural pliancy in stepping is understood.

Forward and Backward steps

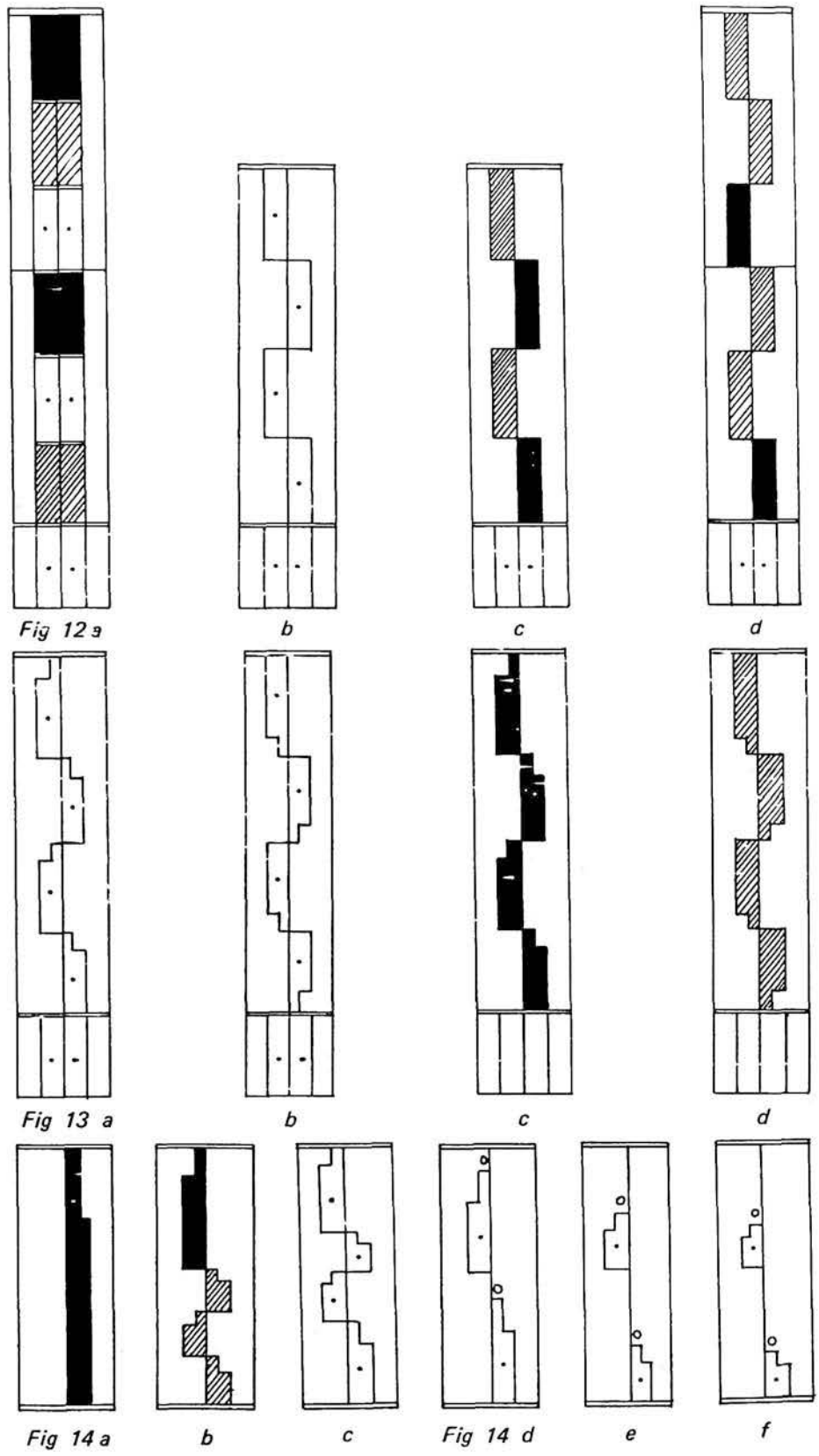
A direction symbol in the support column indicates that the center of gravity of the body has moved away from its previous stancing position (stance) into the stated direction by means of a step on which the weight of the whole body is transferred until it is vertically above the new point of support. ***(Fig 12 a, b, c, d,)***
Step in any direction should be a normal-sized step, that is, the usual stride of the performer. Longer and shorter steps use specific symbols. All directions relate to the front of the performer, that is, to the side or corner of the room which the performer is facing. ***(Fig 13 a, b, c, d)***

a. Slow step
In a slow step, the transference of weight must be spread throughout the time allowed for the step, in this case three counts. Too often it is performed too quickly and then a pause ensues. A long step symbol indicates a sustained and continuous action in transferring the weight ***(Fig 14 a).***

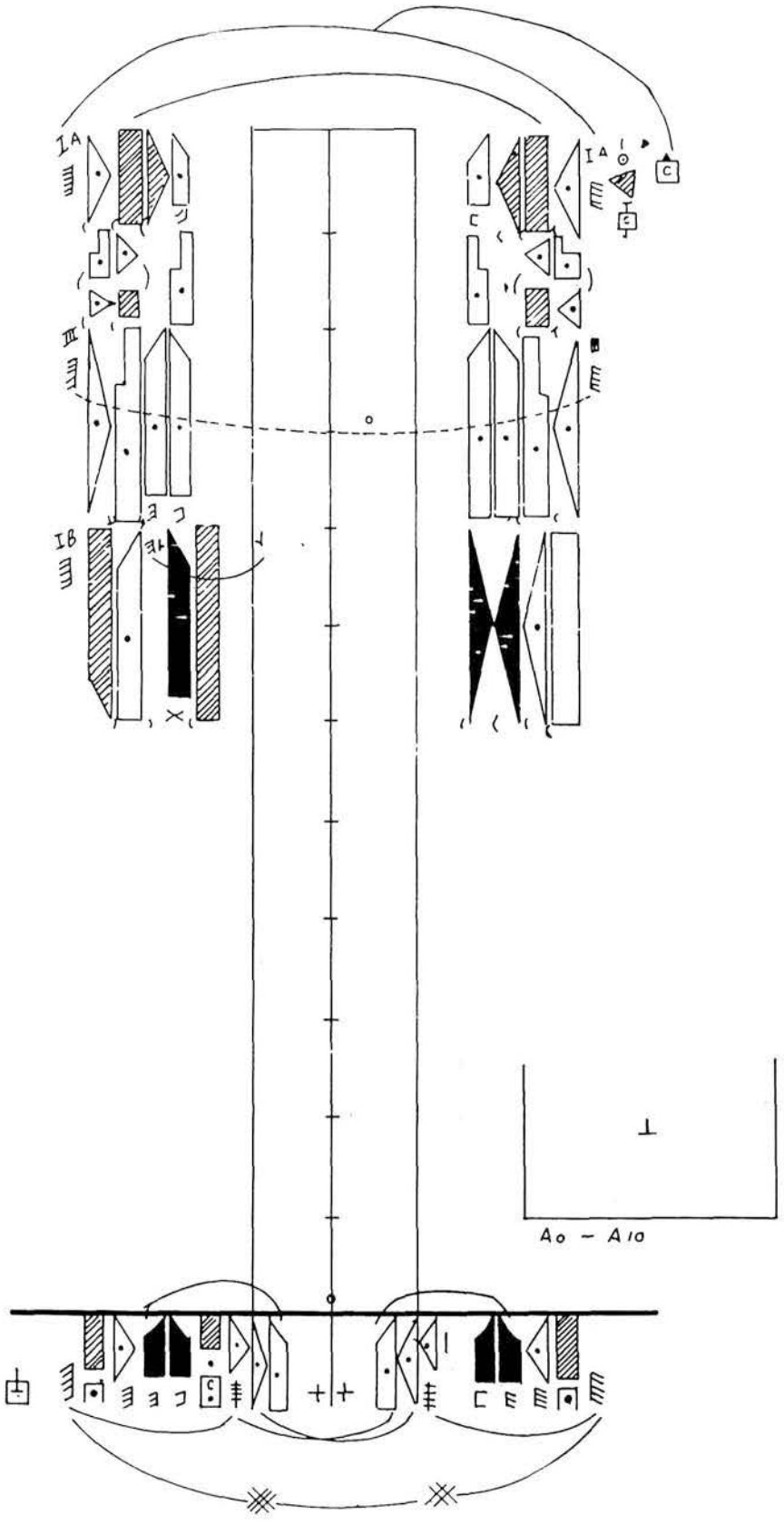
b. Quick Steps
In quick step, the action of contacting the floor with the foot and transferring the weight to the new support occurs almost simultaneously ***(Fig 14 b).***

c. Legato Steps
Legato means "tied together;" legato movements follow one another smoothly without break ***(Fig 14 c).***

d. e.f. Staccato Steps
Staccato means "separated", a break between movements, as shown in the following figures ***(Fig 14 d,e, f).***



A part of "sembahan" Gatutkacha Gandrung (Javanese Dance) notation by Sal Murgiyanto.



1. Soedarsono, "Notasi Laban: Satu Kemungkinan Notasi Tari Bagi Indonesia" (Labanotation: An Alternative of Dance Notation for Indonesia), a working paper submitted to the National Seminar on Dance Notation held by the Directorate of Arts, Bandung, 22-26 February 1978, p.2.

2. Alwin Nikolais,"A New Method of Dance Notation in***"The Dance Experience,*** edited by Myron Howard Nadel and Constance Gwen Nadel (New York: Praeger Publisher, 1970), p.145.

3. Soedarsono, ***op. cit.,*** p.24.

4. John Martin, "Dance on Film," in ***The Dance Has Many Faces,*** edited by Walter Sorell (New York: Columbia University Press, 1966), p.168.

5. ***Ibid.,*** p. 165-66.

6. Ann Hutchinson, "The Preservation of the Dance Score through Notation, in "***The Dance Has Many Faces,*** p. 159.

7. Based on the paper by Dr. Soedarsono "Notasi Laban: Satu Kemungkinan Notasi Tari Bagi Indonesia" during the National Seminar on Dance Notation.

8. Ann Hutchinson, "The Preservation of the Dance Score through Notation," ***p. 151.***

9. Soedarsono, ***op. cit.***, p. 1.

10. Fernau Hall , ***op. cit.,*** p. 141.

11. Ann Hutchinson, ***Labanotation,*** p.3.

12. Myron Howard Nadel and Constance Gwen Nadel, "The Analysis and Preservation of Movement: Benesh Notation", editors' preface to Fernau Hall, "Benesh Notation and Choreology" in ***The Dance Experience,*** p. 135.

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