

# INTERACTIVE DESIGN PROJECT: “LABANOTATION”

by

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The cd-rom prototype “Labanotation” created by Geraldine Rey is a final project for a 5th year diploma in interactive design at Ecole supérieure d’art et de design d’Amiens.

The purpose of the cd-rom is to allow the user to discover some basic principles of notation through focused interactive experiments.

Geraldine Rey has a personal interest for dance and did most of her student projects on dance-related topics. As a graphic designer, with strong interest for typography, she became particularly interested in dance notation. For those reasons she decided to do her final project on Labanotation. Marion Bastien, as notation expert, participated to the project by conceiving the notation examples and the theoretical framework on notation.

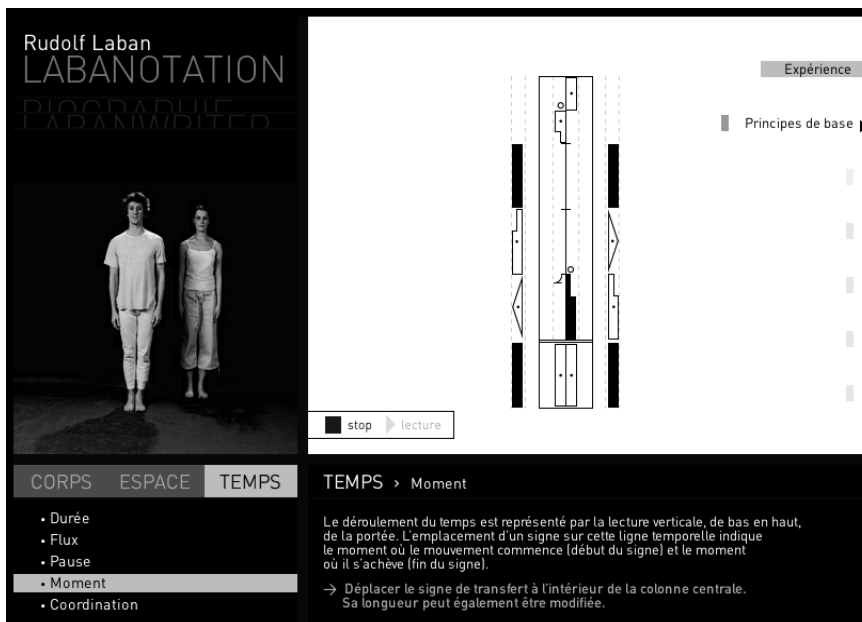
## The arborescence of the cd-rom - body, space, time

The cd-rom is structured around 3 sections: body, space, time, each section containing thematic sequences (Figure A).

Each sequence is offering a short experiment associating notation examples with made-to-measure videos. The user is able to interact with one of the component of the notation, the result of his manipulation showing up on the video. Interactions are simple, such as 'drag-and-drop' a sign in a column, lengthen and shorten a sign, rotate a sign, etc.

"Plus points" do enrich the sequence with theory explanations, illustrations, examples of scores. "Repertoire points" show choreographic excerpts illustrating the movement topic context (Figure A).

FIGURE A



*The "plus points" can be accessed through bookmarks, placed on the side of the screen.*

*The navigation: sections and sequences*

## The components of a sequence – the example of the 'body parts' sequence

To explain how each sequence is built, we will describe the sequence on "body parts".

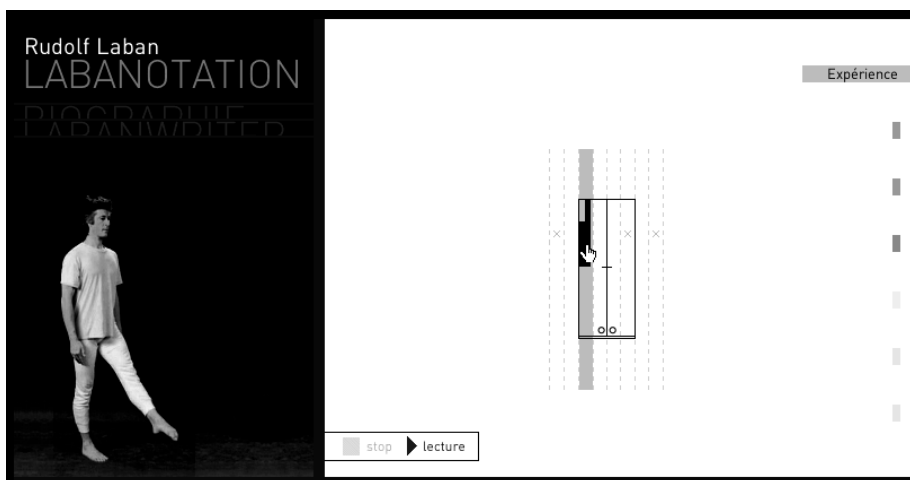
The 'body parts' sequence gives the possibility to see how body parts are indicated through the use of staff and columns.

### • The experiment screen

The opening screen, the experiment screen, is divided in two parts, a right part with a notation sample to manipulate, and a left part with a video of a dancer.

In the 'body parts' experiment, Figure B, a single sign - forward low – can be displaced (drag-and-drop) in the leg column or in the arm column, in one or the other side of the staff. Once the sign is placed, the matching video is played.

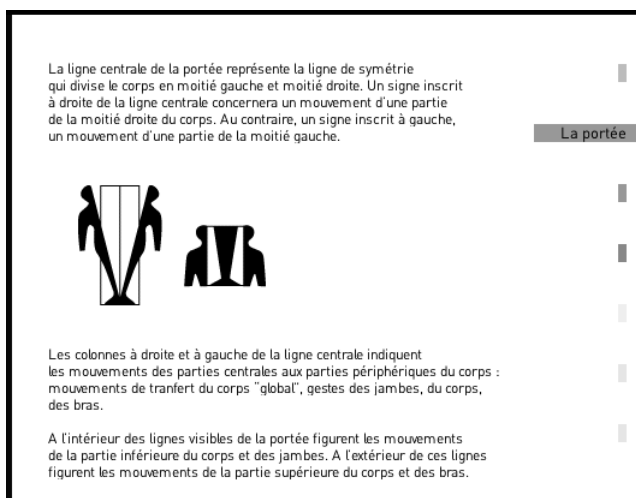
FIGURE B



### • Plus points

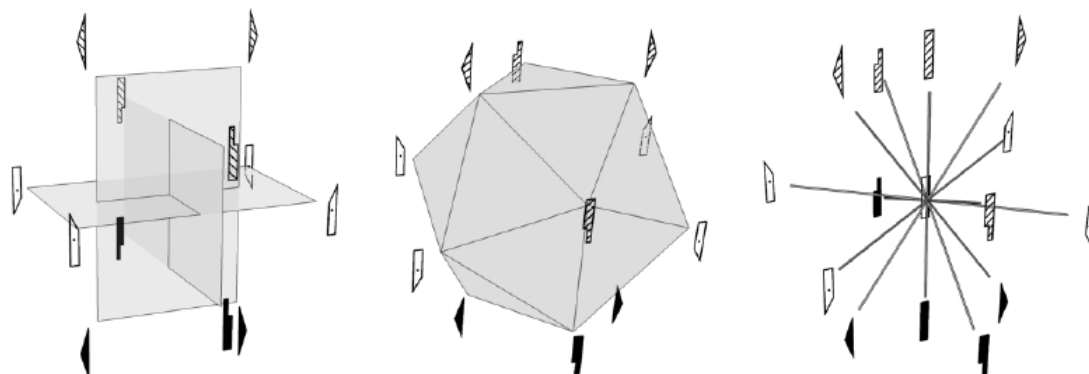
"Plus points" on theory (orange bookmarks) gives explanations, as in Figure C, where the columns of the staff are described.

FIGURE C



In the Space section mobile 3D illustrations (Figure D) have been used in a plus point to present more efficiently several spatial models.

FIGURE D



• **Repertoire points**

The "repertoire point" (green bookmark) shows a video as in 'body parts' where a Balinese dance master performs a sequence with a sophisticated use of body parts.

Most of the videos are associated with a text quotation (interview, article, literary text). The repertoire videos chosen are not bound to specific styles of dance. They link and expand the topic of the sequences to choreographic or movement features representations.

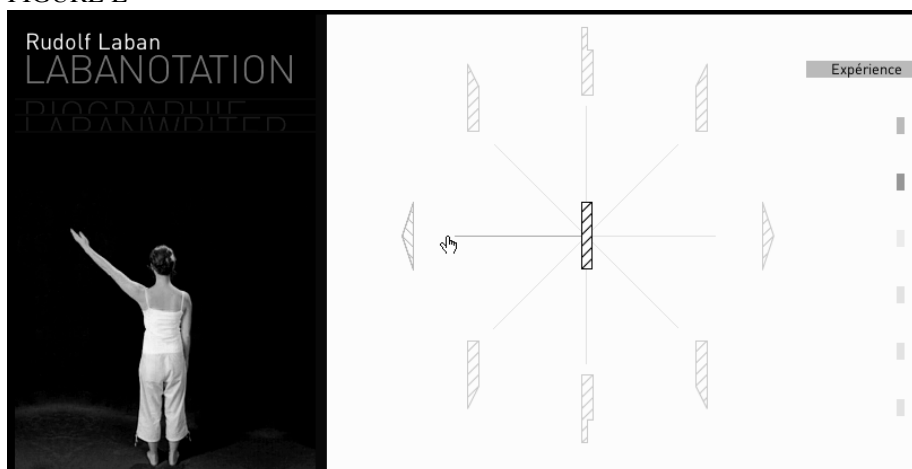
**Interactive devices to develop understanding – other examples**

Other interactive devices have been used to explore the meaning of a sign and its variations, and here are some more examples from other sequences.

• **Pointing**

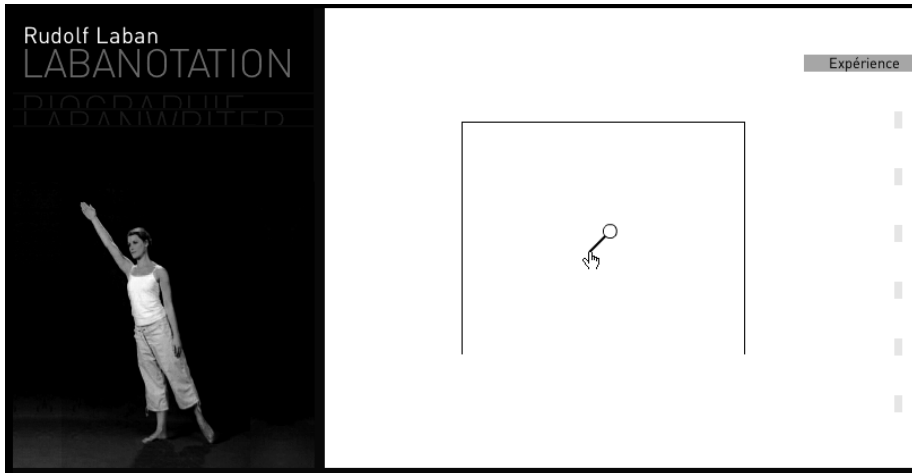
In the sequence "directions", Figure E, one can experiment the directions in space expressed through the arrow-like shapes of the signs. The user click on the direction sign, or move the pointer to interact with the dancer.

FIGURE E



In the sequence "orientation", Figure F, one can manipulate the facing of the dancer. You rotate the pin sign on the floor plan, and the dancer changes its orientation.

FIGURE F



Technically, the dancer has been shot around several angles (see Figure G), in order to create a QuicktimeVR. This technology allows the creation of 3D imagery from 2D photographic images.

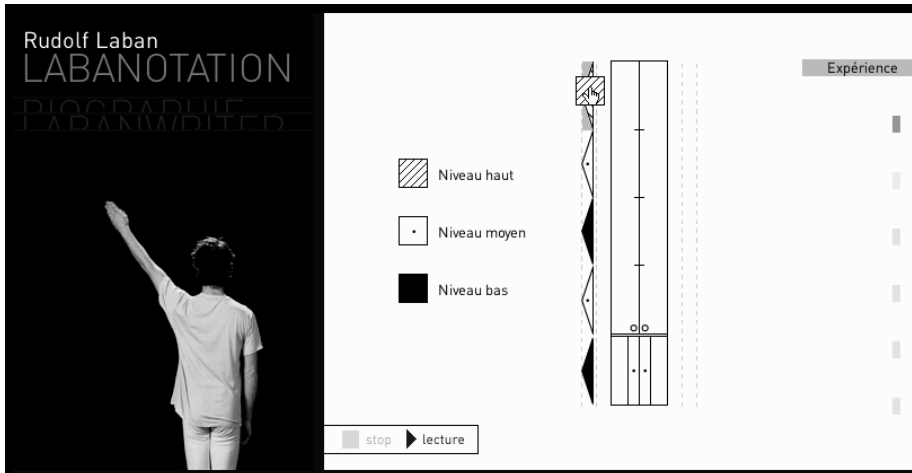
FIGURE G



• **Combining elements**

In the sequence "levels", Figure H, the user interacts with the meaning of levels for direction signs, graphically expressed with the combination of shapes of signs and coloration. The user drag-and-drop a level (color) over blank side signs.

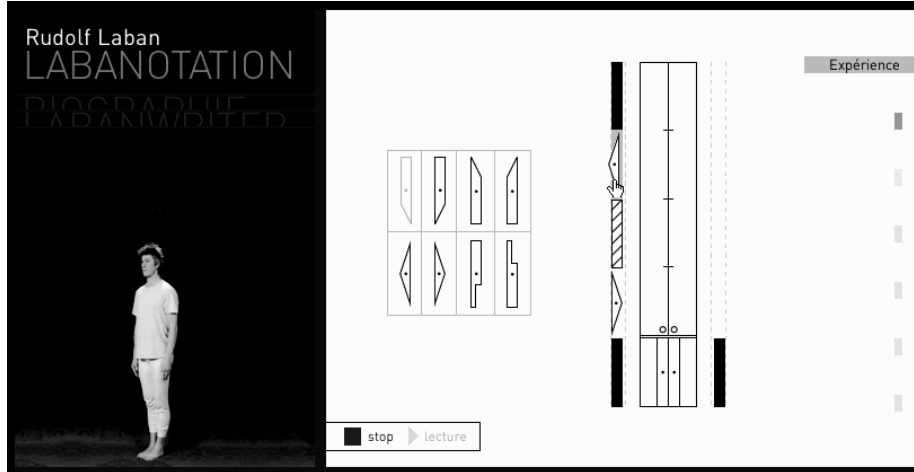
FIGURE H



- **Filling blanks**

In the sequence "progression", Figure I, the user defines the path of a movement through the use of successive direction signs. The user drag-and-drop signs to create the dancer's arm path from place-low to place-high to place-low.

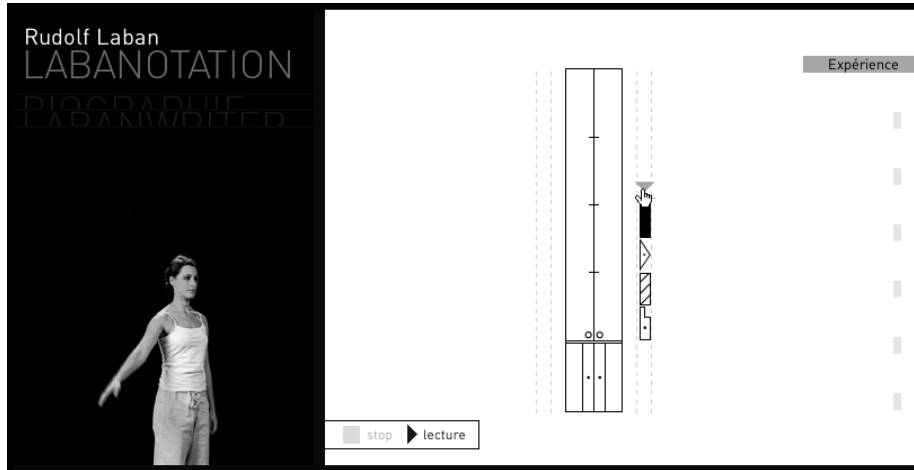
FIGURE I



- **Changing size**

In the sequence "duration", Figure J, one can play with the time element through its notated representation, the length of the signs. The user can shorten and lengthen an ensemble of signs. The movement of the dancer is becoming slower or quicker

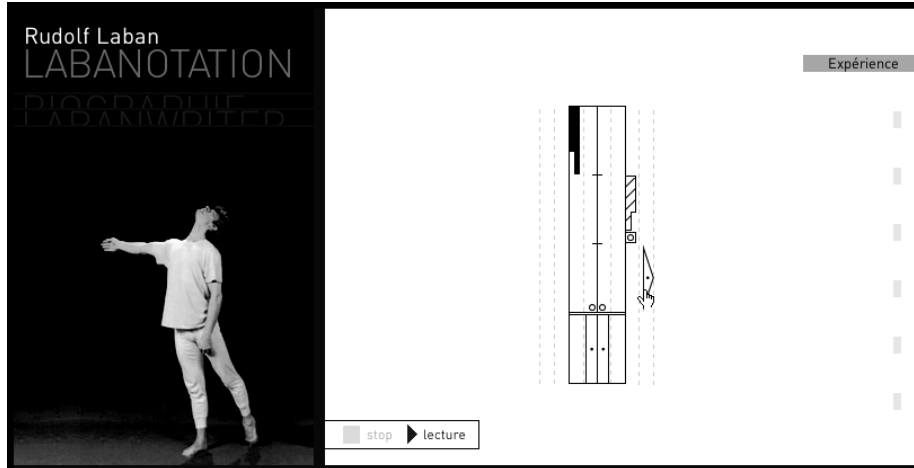
FIGURE J



- **Displacing and ordering elements.**

In the sequence "coordination", Figure K, the user manipulates the organization of movement occurrences. Three signs showing an arm movement, a body movement, a leg movement, can be displaced and ordered on the timeline. 27 combinations are possible and have been videotaped. Once the user has organized the signs, the video related to its combination is called.

FIGURE K



### **The conception and production process**

The project implied an important conception phase. The experiments and interactivities were first conceived. Interactivity had to be purposeful for a notation introduction, possible for the human body, and using in a relevant way computer programming potential.

Once interactivity was designed a storyboard of all videos to be shot with the dancers was done. For each experiment all the combinations possible had to be planned.

For the production phase – on top of interface design and graphic conception - the work included treatment and editing of the videos, redrawing of the signs and of the notated examples, so they could be manipulated via the programming code, programming of the cd-rom

The graphic design has been kept deliberately simple to highlight the notation window and the notation signs.

In term of notation content and explanations on theory point the texts, while being very short, had to be enough informative without being too simplistic.

### **Conclusion**

The main characteristic of this project is to allow the user to understand and experiment how signs represent movement features. Through the manipulation on screen of graphic elements of the notation system, the user manipulates indeed spatial directions, path design of a gesture, duration of a movement, flow, etc. The user will not only discover the basic principles of notation, but will also understand that a notation system is a unique device to understand movement.

## NOTES

### Softwares used

The cd-rom has been made with authoring software Director 8. Other softwares used were: Adobe Illustrator, Adobe Photoshop, Quicktime Pro, QTVR Edit Object, Cinema 4D, Media Cleaner Pro, After Effects.

### Reference sources for notation content

Textbooks: *A Dictionary of Kinetography Laban*, Albrecht Knust; *Mastery of Movement and Laban's Principles of Dance and Movement Notation*, Rudolf Laban.

Articles: *The Visuality of Kinetography Laban (Labanotation)*, Albrecht Knust; *The Principles and Basic Ideas of Kinetography*, Albrecht Knust; *Basic Principles of Movement Notation*, Rudolf Laban (Schrifttanz magazine, 1928).

### Credits

Conception and graphical production: Geraldine Rey

Texts and notation, Marion Bastien

Dancers: Bruno de Saint-Chaffray, Benedicte Leclerc,

Development: Geraldine Rey, with the help of Jacques-André Régnier

Voice: Sonia Cruchon

Lighting and camera operator: Pascal Auffray of ENS Louis Lumière

Sound and video editing: Geraldine Rey, with the help of Valery Faidherbe

3D spatial models: Sylvain Fustier

Thanks to the Pedagogical team of ENSAD Amiens and the team of Hyptique multimedia company.