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# The Ball in The Hole

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## ABSTRACT

“The Ball in The Hole” is an interactive video installation, running on GPL homemade software, which uses the principle of tele-presence.

Two rooms are showing a projected mirror, where the user can see and recognize himself. On the floor there is a spiral, containing a luminescent ball. When the user grabs the ball, spontaneously attempting to play with it, the projected mirror will start erasing, showing the other room. The ball, as an interface, will act on the video as an eraser on a pencil drawing. The two rooms / spaces are symmetrical.

After the complete erasure of the image, the mirror will show the remote room only. At this point the game flips: the ball, rubber and pencil at the same time, gets the capability to erase the other person / space / video. Therefore this deletion of the Otherness corresponds to the redrawing of the Self. You draw as much as you erase, in direct proportion.

The process continues endlessly rendering the installation a social happening where the user becomes the main character of an improvised performance.

[Http://theballinthehole.org/](http://theballinthehole.org/)

## Categories and Subject Descriptors

J.5 [Computer Applications]: Arts and Humanities - fine arts

## General Terms

Human Factors, Experimentation, Performance

## Keywords

Culture, Multimedia Arts, Technology, Interaction

## 1. INTRODUCTION

The ball in the hole is easy and fun.

Using a colorful ball you can delete your projected image to see what (or who) is in the hole.

After recognizing and discerning your representation, the image of thyself, you can understand and reveal the other through the erasure of the self. The person behind the hole will appear to disappear again. The emphasis is on the line separating and connecting the visual to the concrete world. The ball and the hole. The person's movement is his deletion.

The ball in the hole is a social installation/performance where the user becomes the actor of metamorphosis. The discovering of the self and the legendary mirror to other dimensions is experienced through a real-time tactile digital environment.



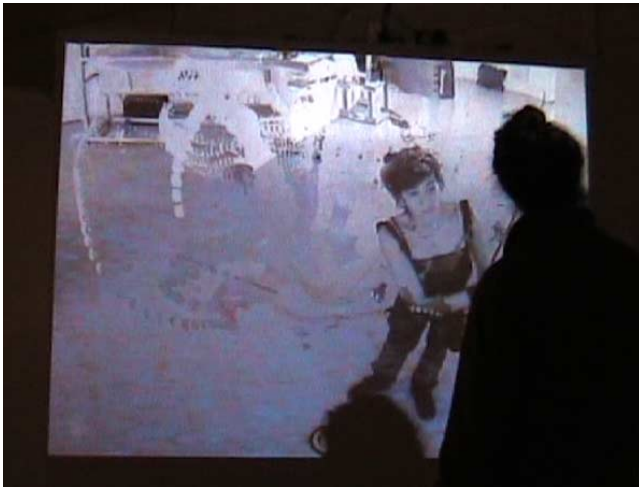
Illustration 1. Two children playing with the installation.

The deformation shown is a constant force that the user can apply to his virtual figure.

The image becomes fragile and shows its temporary value[1]. The reflection of identity, reality and representation becomes a playful, intimate and dislocated game of drawing and deleting limits and borders.

## 2. THE MONGREL

According to Greimas[2-3]' semiotic square, the opposition between Self and Alius entails the existence of two other concepts which are in relationships of contradiction and complementarity: these are neither Alius nor Self (Ipse). These two domains of non-Alius (Idem) and non-Self (Alter), which are in a contrariety relation, open a semantic field which 'the ball in the hole' is visualizing. Non-Alius, in relationship of contradiction with Alius, represents, in our case, fragments of non-discrete Self, but yet appearing. Non-Self represents scraps of Alterity overlapping the self. This generative process in progress creates the hybrid figures that this installation means to point: the mongrel, a contradiction tending to complementarity. Identity, Self as an Entire, and Alius as a Unity, are nothing else than an instant; all the rest is deformation, migration of significant, dynamic transformation. This innovative characteristic of the Ball in the Hole makes it peculiar: the superimposition of images of "self" and "other", as the creation and visualization of contrariety, renders the game of drawing and erasing filled with philosophical implications.



**Illustration 2. A hybrid mongrel composed of the authors**

While γνῶθι σεαυτόν (gnothi seauton) is an assumption at the base of knowledge and socialization, it can become a cage, limiting the experiment of something that is not you. The Self can become a blindfold. The perspective, then, is static.

On the contrary, in this work, the distance between Alius and Ipse is a continuous journey augmenting levels and layers of signification.

This evolution in time is a cycle in the form of a spiral. The generation of sense and images implies a subject actively and physically involved, moving the ball. The user enters the show, the user becomes the show.

## 3. TECHNICAL DETAILS

The technology is as hidden as possible to render the game spontaneous and playful.

### 3.1 Software

The algorithm, using thresholding on YcbCr colorspace, is really simple to keep the effects of raw deletion ed superimposition of images. The installation uses Cimiano streaming engine, a custom software made by Silvano Galliani and released under GNU GPL License. Video is sent through an ethernet cable between the two computer (one in each space) and the software recognize the ball using one camera on each side.

### 3.2 Space

"The ball in the hole" needs 2 separate spaces with the following dimensions in meters (height x width x depth).

Minimum: 160x160x200

Maximum: 300x300x500

To realize this installation at the best of its capabilities it's best to put it in crowded places.

## 4. CONCLUSIONS AND FUTURE WORK

The Ball in the Hole is a representation of the continuous transformation from the Self (Ipse) to the Alius, passing through the non-Self (Alter) and the non-Other (Idem), in a generative spiralling trip exploring levels and layers of Identity and Otherness.

The representation of identity is not a static fixed image nor are there static values. The endless movement depicts a hybrid monster, the mongrel out of the cage, a new mythical figure, the morphing daemon composed of alien and self, alter and idem.

The next steps for Ball in the Hole include:

Releasing a stable version of the software, make a bootable linux distribution including the game, so that the installation is usable and can be reproduced by users.

Play with different spaces and social reaction: integrate the work in different contexts and observe the phenomenology of the reactions (ex: 'the ball in the hole' in the underground, in a airport toilette, in a queer party...)

Improve the streaming engine, install the work in two remote places (a fast internet connection is required), publish the code.

## 5. REFERENCES

- [1] Debord Guy, *La société du spectacle*, 1967.
- [2] Greimas Algirdas Giulien, *Del Senso*, Paris, 1980.
- [3] Greimas Algirdas Giulien, *Del Senso 2*, Paris, 1983.