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**—Interaction Design  
Workshops**

**—Andreas Gysin  
5-6-7 May 2010**

**—Massimo Banzi  
26-27-28 May 2010**

**—Roberto Vitalini  
31 May - 1-2 June 2010**

**—Vico Morcote  
Switzerland**

–SUPSI–University of Applied Sciences  
and Arts of Southern Switzerland

## OVERVIEW

—The technological evolution of the past years is changing the way we live, work, learn, and entertain ourselves within an environment. It is the age of pervasive and ubiquitous computing, of augmented reality and contamination between digital and real world: designers need to familiarize with new branches of knowledge and competences in order to design spaces that can interpret users' needs, influence their behavior, and generate visual or tangible experiences.

—The goal of these series of workshop is to provide designers, artists and amateurs with practical notions for the design of interactive environments, one of the main field of interaction design, the discipline combining design culture with technological innovation and focusing on the modalities of interaction between human beings and electronic, mechanic, and information systems, such as interactive artifacts, environments, and services.

—Through the approach of “learning by doing”, participants will acquire on a short term methodologies and techniques to manipulate and control all elements, both physical and digital, composing the software/hardware system of an interactive environment, such as sensors, projections, lights, and sound. Each workshop will focus on a precise issue in the field of interactive environments. Through the support of teachers, participants will acquire competences on technological and design issues in order to produce a functioning prototype.

—The workshops are promoted by Visual Culture Lab (department of Environment Construction and Design, SUPSI) and Interaction Design Lab within the activities of the Master of Advanced Studies in Interaction Design, the new MAS program offered by SUPSI, starting next September 2010.

—The participation is open to all concerned people regardless their educational background (visual arts, design, information technologies, engineering).

—Participants will receive a certificate of attendance, recognizing two ECTS. The credits can be transferred to the Master of Advanced Studies in Interaction Design. Tuition fees of the workshops will be deducted from those for the MAS program.

## PROGRAM

5-6-7 May 2010

*Race!*

Mixed reality environment /

Site specific installation

—Andreas Gysin

[www.gysin-vanetti.com](http://www.gysin-vanetti.com)

26-27-28 May 2010

*Making spaces talk*

Physical computing

—Massimo Banzi

[www.tinker.it](http://www.tinker.it)

31 May - 1-2 June 2010

*Immersive Interactive Environments:*

*the illusion of existing within another space*

Spatial audiovisual interaction

—Roberto Vitalini

[www.bashiba.com](http://www.bashiba.com)



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5-6-7 May 2010

**RACE!**

**Mixed reality environment /  
Site specific installation**

—**Andreas Gysin**

[www.gysin-vanetti.com](http://www.gysin-vanetti.com)

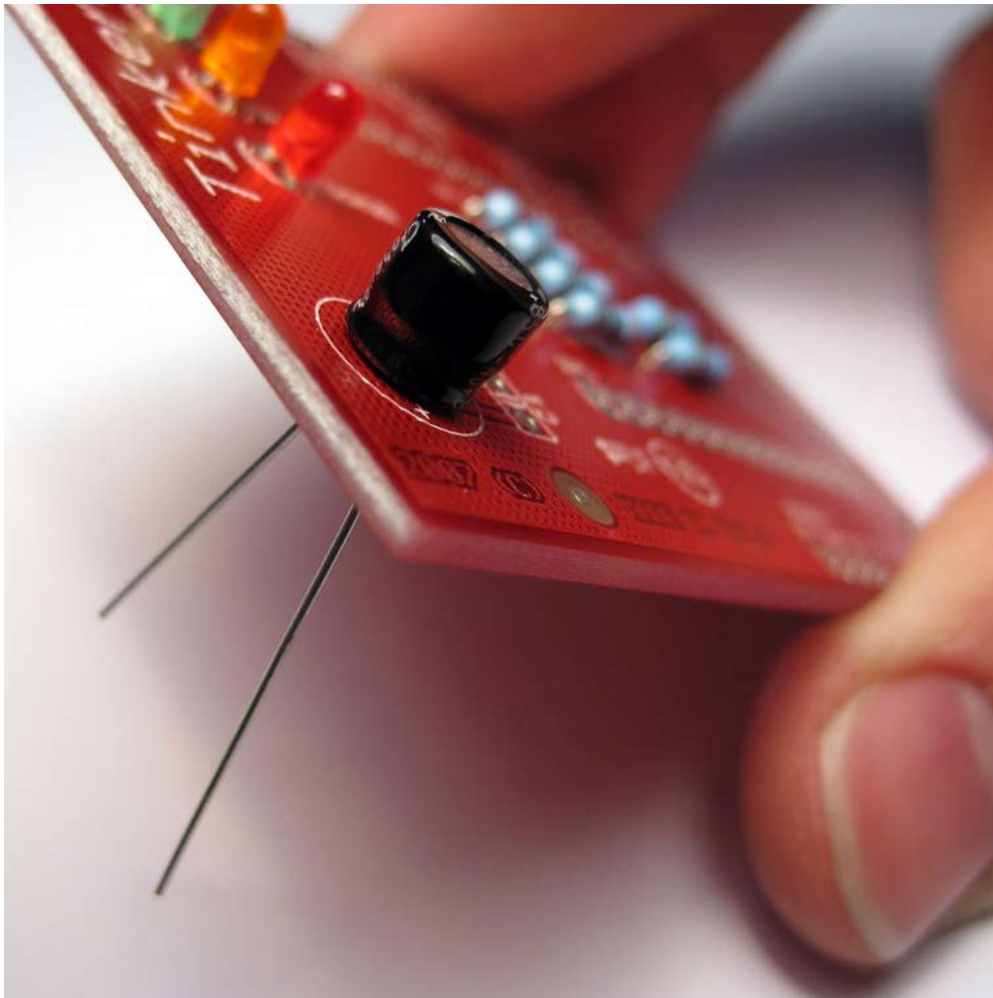
—How video games would look like if the screen onto we watch them were walls, stairs and rooms?

—The workshop *Race!* will focus on the design and the realization of prototypes of video games based on a mix of physical real-world environments and virtual computer-generated ones: the space becomes a platform for the development of new landscapes and ways of game interaction.

## **GOALS**

—The workshop aims at conceiving and realizing a prototype of game through the use of architectural mapping projections and interactive systems based on the software Processing.

—Participants will first learn how to manage traditional input devices (i.e. joystick, mouse, keyboard, and microphone) in order to develop a video game based on the format of racing games. In a second phase, a new video game of different typology and concept will be developed, focusing on the design of modalities of interaction and on the visual output according to the features of the available spaces.



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**26-27-28 May 2010**  
**MAKING SPACES TALK**  
**Physical computing**  
**—Massimo Banzi**  
**[www.tinker.it](http://www.tinker.it)**

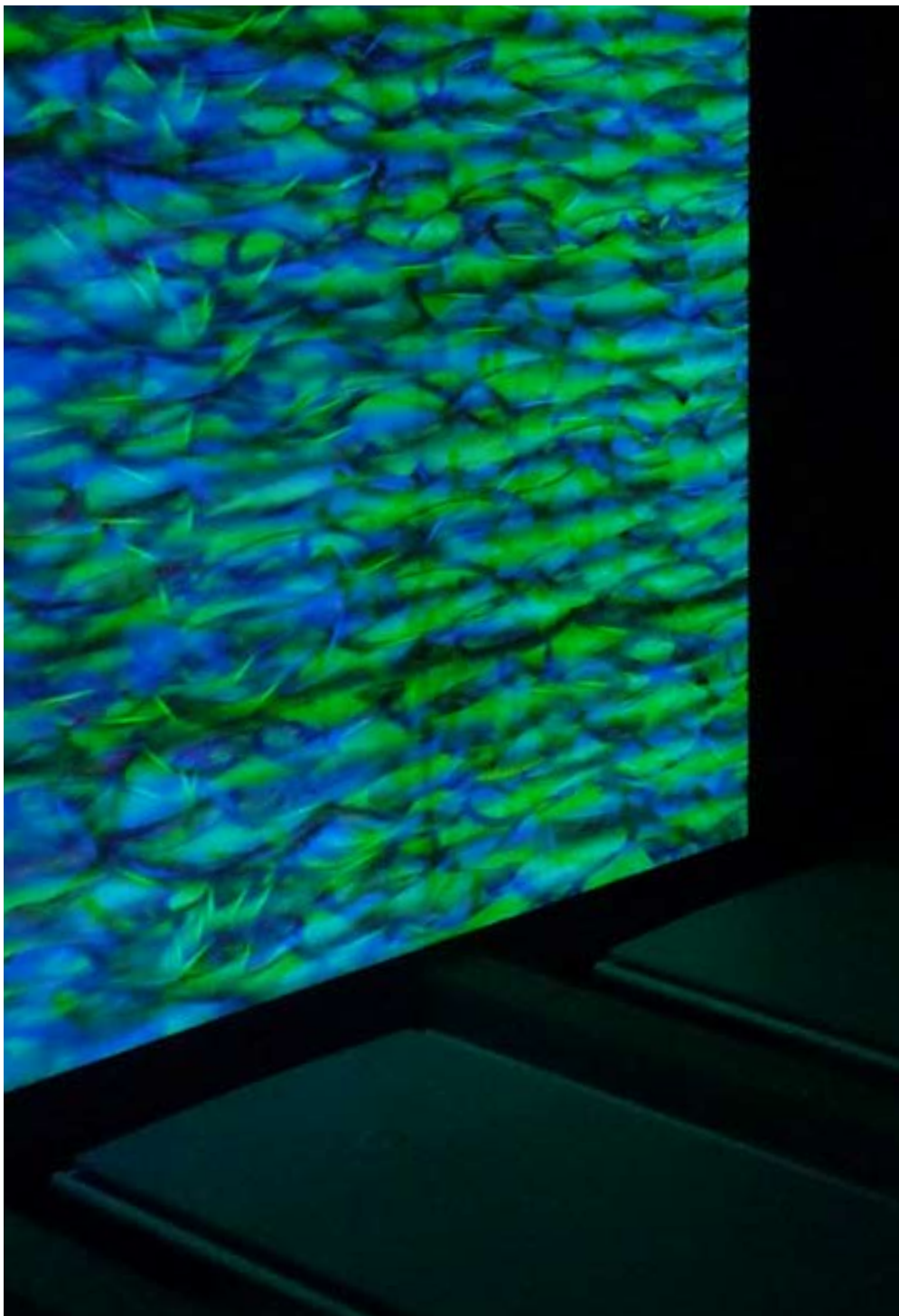
—The evolution of sensing and networking technologies allowed a paradigmatic change in the conception of our environment: sensible physical objects, physically interconnected, turn spaces into something smarter and active by interpreting our needs and influencing our behavior.

—*Making spaces talk* is a workshop focused on the design of prototypes of interactive environments based on hardware/software systems that perceive, interpret, and react to the real world by providing the user with information or metaphorical, visual, and tangible experiences.

## **GOALS**

—The goal of the workshop is the design and implementation of interactive environments through system based on sensors and actuators controlled by Arduino, the open-source platform for electronic prototyping. Participants will acquire methodologies and techniques for the design of an interactive spatial experience, by learning how to handle sensors and actuators through Arduino, and how to manage Arduino with the software Processing.

—During the first phase of the workshop, basic notions of physical computing will be developed together with an introduction to the platform Arduino and to different typologies of sensor and actuators compatible with it. The realization of the projects will be supported by specific intermediate presentations according to the features of the prototypes proposed by participants (i.e. how to manage light, how to track movement, etc.).



**31 May - 1-2 June 2010**  
**IMMERSIVE**  
**INTERACTIVE**  
**ENVIRONMENTS:**  
**THE ILLUSION**  
**OF EXISTING**  
**WITHIN ANOTHER SPACE**

**Spatial audiovisual**  
**interaction**

—**Roberto Vitalini**  
**[www.bashiba.com](http://www.bashiba.com)**

—The design of interactive environments concerns a world apart: it means designing a world in itself, cutting it off the real world and establishing new modalities of interaction within it. It is moreover a way to challenge the perceptions of users and to encourage them to rediscover themselves and their actions. This workshop will focus on the design of interactive environments where modalities of natural interactions contribute to immersive experiences generated by real time digital videos manipulation.

## **GOALS**

—The workshop aims at developing interactive environments based on projections that respond fluidly to sound waves and users' physical movements.

—In the phase dedicated to *visual programming* participants will be introduced to the use of visual programming softwares such as Isadora ([www.troikatronix.com/isadora.html](http://www.troikatronix.com/isadora.html)), vvvv ([www.vvvv.org](http://www.vvvv.org)), and Max/MSP ([www.cycling74.com](http://www.cycling74.com)), which allow to manage the interaction between digital media. At this stage the real time manipulation of digital videos will be deepened.

—During the phase *Ambient lights, projections and sound effects*, the audiovisual experience and the features of the interactive environment will be defined, i.e. by manipulating lights through a lighting system of infrared LEDs for night vision.

## ADMISSION REQUIREMENTS

The workshops are open to all people concerned with interaction design, such as designer and artists. No specific knowledge or competence is required (beginner level), but people who are already familiar with software and hardware platforms employed during the workshops (i.e. Processing, Arduino, Isadora, Max/MSP,

vvvv) are welcome. Please notice that for participating to the workshop *Making spaces talk*, held by Massimo Banzi, a basic knowledge of the software Processing is expected. We suggest to participate to the workshop *Race!* held by Andreas Gysin, or to access the tutorial for interfacing Arduino through Processing:  
[www.arduino.cc/playground/Interfacing/Processing](http://www.arduino.cc/playground/Interfacing/Processing).



## VENUE

The interaction design workshops will take place at the villa i2A in the medieval village of Vico Morcote, a picturesque area near Lugano and its lake. The villa is equipped with two- and four-bedrooms for the stay of students, classrooms for lessons, workshop areas, a garden and an outdoor restaurant.

## COLLATERAL EVENTS

At evenings, leisure activities will be organized within the spaces of the villa.

A final event will be open to the public in order to show the results of each workshop.

## CERTIFICATE

At the end of the workshop participants will receive a certificate of attendance (certificate of continuing education SUPSI) that recognizes 2 ECTS. The credits can be transferred to the Master of Advanced Studies in Interaction Design, the new MAS program offered by SUPSI starting from September 2010. Tuition fees of the workshops will be deducted from those for the MAS program.

## APPLICATION

In order to enroll, all applicants must submit the on line form available at [www.maind.supsi.ch](http://www.maind.supsi.ch). The number of participants is minimum 15, maximum 25. In case of a number of applications exceeding the available places, we will proceed to a selection based on CVs.

## DURATION AND ADMISSION FEES

Each workshop lasts for three days of 8 hours a day of lessons and practical activities, summing up to 24 hours of tuition. The admission fee for each workshop is 450.- CHF / 310.- €. The price for the accommodation at the villa is 40.- CHF / 27.- € per night (3 nights).

## EQUIPMENT

Participants must bring their own laptop computers. All other material and basic equipment for the realization of the projects will be provided.

## CONTACT INFORMATION

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