ART+COM

MEDIA
SPACES AND
INSTALLATIONS

JOACHIM SAUTER
SUSANNE JASCHKO, JUSSI ÄNGESLEVÄ

gestalten

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CONTENT

1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003

PREDICT   PROVE

2004   2005   2006   2007   2008   2009   2010   2011

PREVAIL   **PRESENT**

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PREVAIL   PRESENT

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ART + COM
MEDIA SPACES AND INSTALLATIONS

FOREWORD

BY

JOACHIM SAUTER AND ANDREAS WIEK

»
THE BEST WAY
TO PREDICT THE FUTURE IS TO
INVENT IT.
«

ALAN KAY

In the 1970s, when the present world of media only existed in the minds of a few, the visionary IT pioneer Alan Kay would reassure his nervous Xerox executives with the legendary phrase:
»Look, the best way to predict the future is to invent it.«
As a testament to how right he was, this very text for example is written on a laptop, within a window, stacked on top of many others—very much like how Kay, one of the fathers of object-oriented programming and co-founder of the Xerox PARC think tank, devised it with his colleagues back then. Some of the wild, and some less so, techno fantasies of the 1970s and 1980s have indeed already made cultural history, whilst many other ideas of the time, such as the head-mounted display or the data glove have been abandoned and forgotten.

According to media archeologist, Friedrich Kittler, the essence of culture is no more than an ongoing act of data processing, and technology the hardware of the mind. Consequently, the real cultural history is written by the technological media, and reflecting upon the cultural impact of the developments of printing press or the television have had, this assertion appears indeed convincing. If media change society and define culture—if we are defined by how we communicate, and if we think the way our media purport us to, then our understanding of the world and definition of history is now based on a complex position: never before has there been such a plethora of media, and a realm of digital connectivity that spans the globe. The information flowing through this in all directions creates a far more complex, detailed but also scattered picture of social and cultural processes than ever before. This unprecedented variety of perspectives on the present and the past, the increasing speed at which history is being made and adapted, makes it harder to identify real progress and clear lines of development.

**BUT IT TAKES
MORE THAN A COUPLE OF GOOD IDEAS TO INVENT
THE FUTURE. IT TAKES PEOPLE WHO ARE PREPARED TO TAKE
RISKS, AND ARE WILLING TO VENTURE INTO UNCHARTED
TERRITORY AND SHARE THEIR DISCOVERIES
WITH OTHERS.**

This publication aims to help elucidate the history of digital media design and technology from its beginnings to the present day by tracing the story from a particular angle: recalling the developments of the more than two decades long history of ART+COM.

Developments in the fields of art and design do not occur in isolation from the rest of the world, but are always intimately related to the zeitgeist and technology, the economy and society as a whole. Therefore they do not have a linear pattern but occur in sudden leaps and bifurycations. The story of ART+COM also evolved on those lines. At the beginning there was a technological invention, the PC, its mass proliferation, and the vision that this digital technology was not just a tool but a foundation for a new (mass) medium.

This book illustrates how closely the story of ART+COM is linked to the development of new media, its technological progress, but also its societal acceptance, dissemination, and commercialization, and the extent to which this group of designers and technologists made it their mission to help shape the future of media. From the numerous projects ART+COM has completed over the years, this selection is highlighting

the milestones in the journey, and works that provided influential design impulses to the field.

When ART+COM was founded in 1988, only a few designers were already using the computer as a tool for various design and production processes, while some hackers were maneuvering they way through the still very sparely connected branches of the internet. But the phenomenal success of the computer as a mass medium, as a daily connected companion, was still unfathomable. Only a few minds perceived that this new technology was in fact a paradigm shift that would turn a tool into a new medium, and some of those minds were in Berlin: a motley crew coming from various disciplines that grouped together under the roof of ART+COM e.V. at the end of the 1980s. Part of the group came from the Academy of Fine Arts Berlin and part from the Chaos Computer Club, bringing together art and design competence with specialized technological knowledge.

Together this group resolved to explore and foresee the future of this medium. The predicament for this process was radical interdisciplinarity, where everyone would go beyond the boundaries of their own discipline, and discover and reclaim unexplored

territory together. And this terra incognita and its spectrum of things to be understood, tried out, invented, and predicted was positively enormous.

Like all media, the digital medium went through three initial phases: at first it was ignored or underestimated, then it was overestimated and seen as the solution for everything, and then finally through a catharsis, it found its appropriate place in the canon of traditional media.

Parallel to these three phases of adolescence, ART+COM went through three seven-year phases and attempted, often as an antagonist to probe the true relevance of the new medium and anticipate the opportunities it presented. The present publication is sectioned into these three phases, and the developments they represented are illustrated with selected projects. (1988–1995 PREDICT, 1995–2002 PROVE, 2002–2009 PREVAIL) Following these, a selection of present works are shown in a fourth chapter. (2009–Now PRESENT)

PREDICT
–
UNDERSTAND
TECHNOLOGY
1988–1995

The first seven years from 1988 to 1995 were defined by independent technological and artistic experiments and commissioned research projects. This position gave the freedom to maintain independent perspective on technological innovations often hyped as the future successes elsewhere but which did not necessarily turn out as such. New technologies were analyzed, often dismissed, developed further, and »abused.« In this first phase, the new medium's essential qualities such as interactivity and connectivity were identified and explored in a series of art, design and technology projects. (see PREDICT, page 10)

PROVE
–
SHOW
TECHNOLOGY
1995–2002

In 1996, ART+COM entered its second seven-year phase. The projects outgrew the screen and entered physical space. The new medium was gradually gaining ground in the public mind, and independent work was accompanied by first commercial commissions for communication projects. These projects consciously celebrated the technology, which was made explicitly present, and could be immediately experienced. They followed the increasing acceptance of new media in various walks of life and the resulting knowledge about interaction principles and the use of interfaces. The open skepticism and ignorance which the medium had been treated with in the early years morphed into a naive enthusiasm and fascination, a mood which culminated with the burst of the new

economy bubble at the start of the new millennium. (see PROVE, page 32)

PREVAIL
–
HIDE
TECHNOLOGY
2002–2009

As ART+COM never got involved or lost in the new economy, after the new media hype and the following catharsis, it commenced to the next seven-year phase with its clear attitude and position. The formerly new medium was now no longer new. It had come of age and taken its place in the spectrum of traditional media as one among equals. As a consequence, the focus of the work during these years was to make the technology disappear. Physical elements were combined with virtual ones. Later, even classic display technologies like monitors and projections vanished and were supplanted by mechatronic and kinetic installations. (see PREVAIL, page 62)

PRESENT
–
RENAISSANCE
OF THE
PHYSICAL
2009–NOW

After two decades of communicating in the virtual space of the internet, a desire for more communication in real spaces is making itself manifest. The circle to the pre-digital era is closing and the physical and corporeal is back in the spotlight again, though infused and shaped with the qualities of the new medium. The material is supplanting the immaterial; the virtual complements the narrative physicality. (see PRESENT, page 188)

Twenty years is a long time. Looking back at the beginnings we can see how much the new medium has successively permeated all areas of life and how its principles have come to shape our culture. The new medium's defining qualities—such as interactivity, collaboration, its process-like structure, and connectivity—have changed the way we live our lives, the places where we live and work, our language, and even our friendships.

Looking back, ART+COM did consequently proceed step by step towards the future. But it takes more than a couple of good ideas to invent the future. It takes people who are prepared to take risks, and are willing to venture into uncharted territory and share their discoveries with others. This approach to new technologies, the clear design principles which ART+COM developed over the years, and the resulting projects that contributed to the development of the media design scene were and still are a foundation of continuous innovation. And so the story of ART+COM will continue: maintaining an independent perspective and continuing to invent the future.
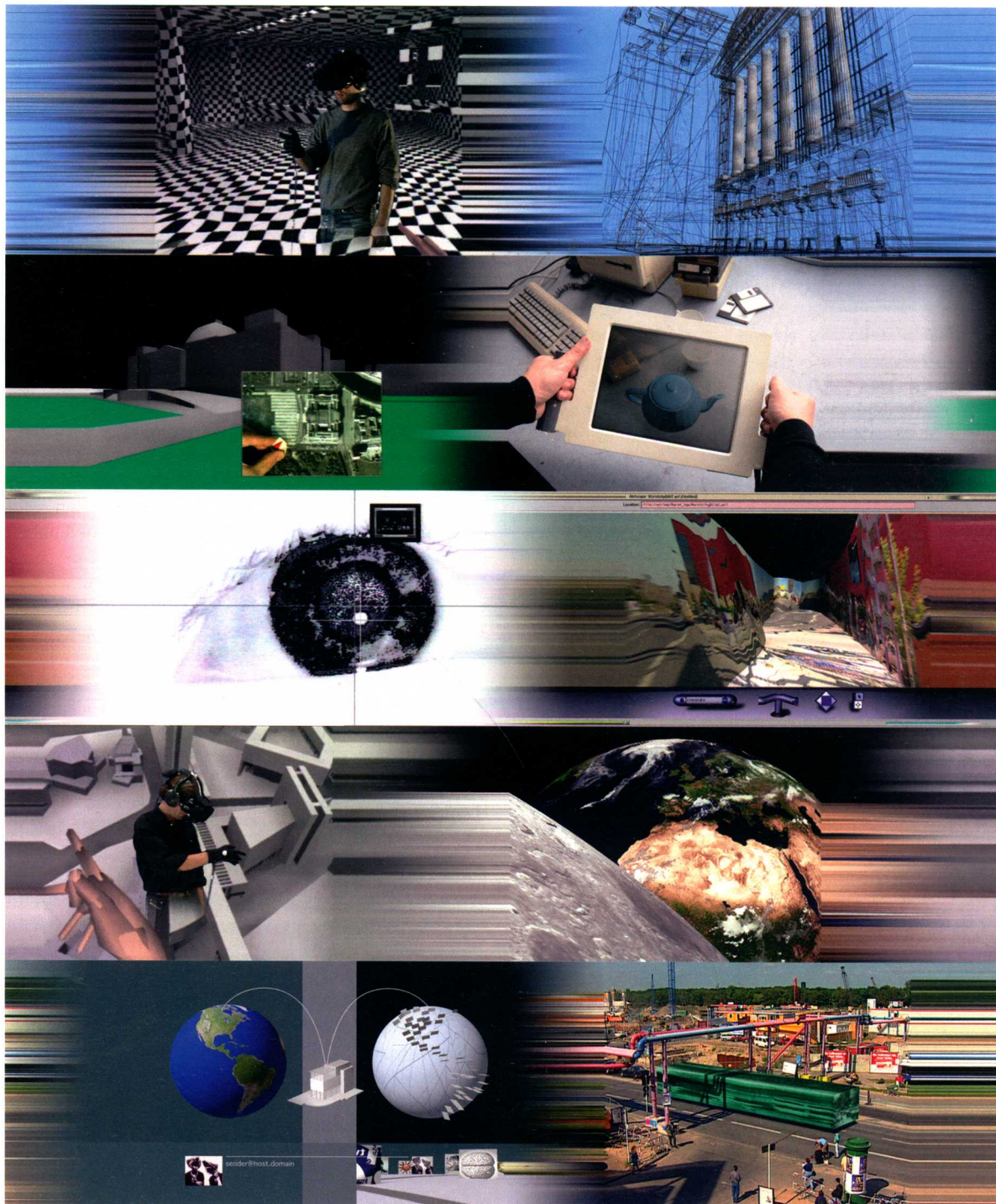
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PREDICT

UNDERSTAND TECHNOLOGY

THE 1ˢᵀ SEVEN YEARS

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The 1980s were the decade in which digital media were born. Although the computer, as enabling technology for this medium, had a history of a half a century, it was the development of the personal computer and its wide dissemination that led to the birth of the third mass medium of the modern times alongside with the print and broadcast media.

Until the mid-1980s, the PC was mostly used as a tool. Desktop publishing, word processing, animation, modeling, spreadsheets, and image processing were the main fields of application. However, in the mid-1980s, people gradually began to realize that the technology behind this new tool could enable it to become a new medium. This realization was the moment and the spirit in which ART+COM was founded. Designers and IT specialists began to work together in an interdisciplinary context to explore the technological and design potential of this new medium. The first seven years were a time of understanding and prediction. The main focus was on commissioned research projects, independently initiated application research into new technologies, and free art and design projects. The overriding aim was to explore the qualities of the new medium, such as its interactivity, connectivity, collaboration, and computation, in an open, independent, and practice-oriented way.

The network of people doing pioneering work in this direction was small yet highly international. A wide variety of networks and channels gave ART+COM access to the very latest technologies, many of which still had no practical use. The potential of the first head-mounted displays and data gloves in the realm of so-called virtual reality, for example, could be explored in this way. A careful examination of this much-hyped technology did not stand: the kind of interactivity that wholly isolated the wearer of the head-mounted display from the outside world did not appeal to users and led into a technological dead end.

Instead, the strategy was to focus on the misuse of technology, meaning the application of technology above and beyond the context it was originally designed for—a highly successful strategy at the time. Instead of moving through and generally getting lost in a virtual city with a data glove and isolating head-mounted display, the position sensor on the display was removed and users could manually maneuver it over an aerial photograph of Berlin, which corresponded to a virtual model of the city. This simple means of interaction made it possible to explore a virtual city and evaluate issues like urban development concepts intuitively.

Another alternative form of navigation through a virtual world involved an LCD monitor equipped with a position sensor. Fitted with handles, users could move the monitor freely in space. It became a mobile window into the virtual world. A camera was attached to the back of the monitor and the pictures from it were displayed on the screen, practically enabling users to look through the monitor and superimpose virtual objects aligned with the real image (augmented reality).

In 1993 another very new and little-known technology had found its way to ART+COM from the Swiss nuclear research center CERN: a precursor of the Mosaic browser—the first internet browser. Designs for the first websites soon followed and then—as had been predicted in the mid-1980s—the PC finally took its place alongside print, radio, and television as a mass medium.

The project with the greatest and most lasting influence from this first phase was TERRAVISION—the precursor and inspiration for today's Google Earth. Users could move freely on a three-dimensional representation of the Earth and zoom down from outer space into individual buildings. It was a virtual globe into which any and every kind of location-based information could already be integrated.

The first seven years of ART+COM were a time of experimentation, transformative innovation, and critical foresight concerning the medium that would turn our world into today's information society.

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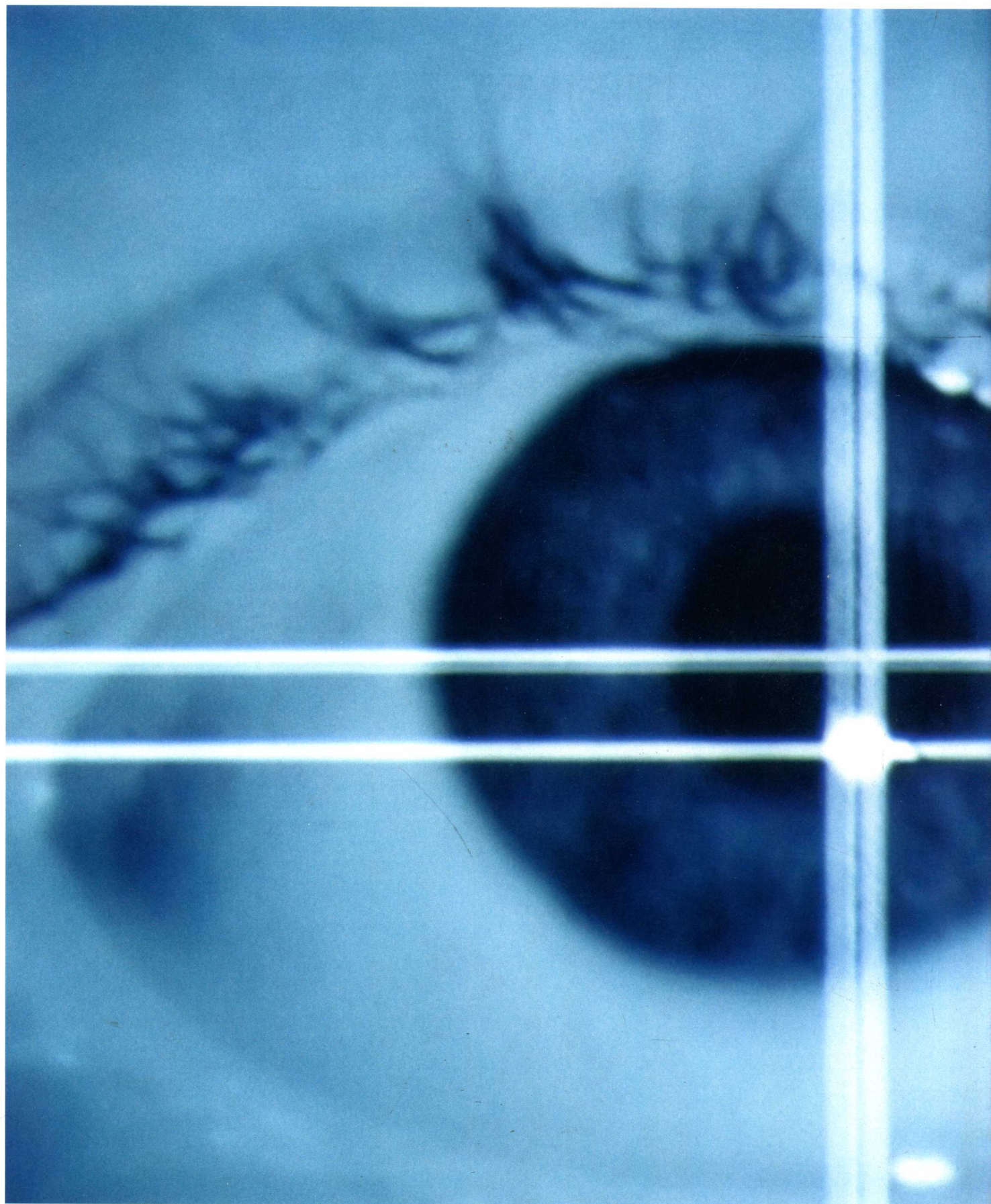
DER ZERSEHER

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ART LEARNS
INTERACTION

INTERACTIVE EYE-TRACKING-BASED INSTALLATION

In the early 1990s, the computer was still seen as tool rather than a medium. Artists who used computers generally did so with the aim of producing visual art that in aesthetic terms was still relatively similar to painting and drawing. Instead of using the true potential of the computer to create new concepts and a new kind of aesthetics, they had merely swapped their paintbrush for a mouse.

The ZERSEHER was developed in response to this state of affairs, and aimed to introduce the computer as an artistic medium in its own right and propagate one of its most notable properties: interactivity.

Whereas the paintings of the old masters formerly left an impression on visitors, visitors were now suddenly leaving their own impressions on the work of an old master. The aim was to make the presence of the viewer in the museum, or rather the process of observation itself, change the painting.