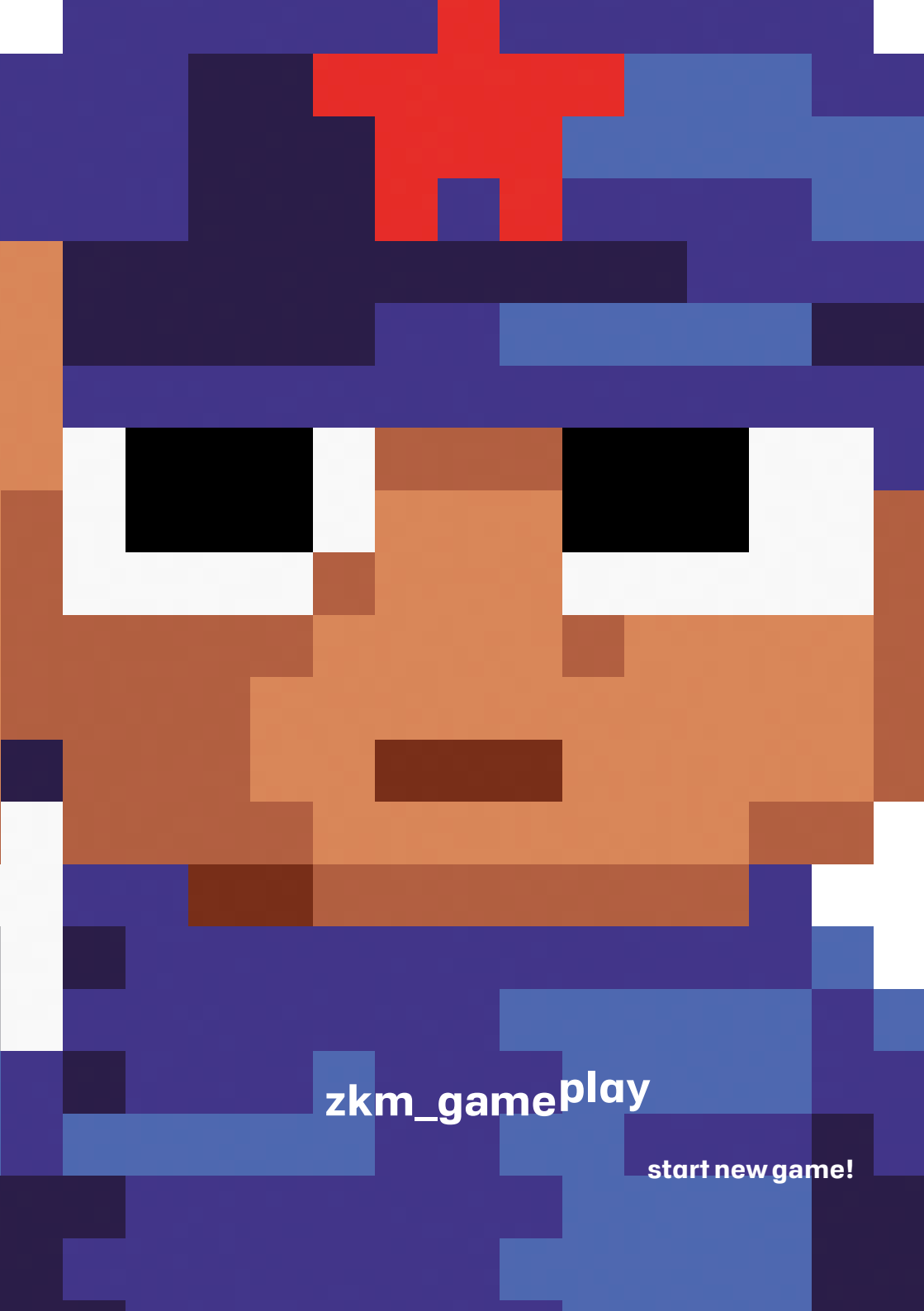
zkm_gameplay
start new game!

ZKM in 1997
Games are a part of ZKM since its opening.
© ZKM | Center for Art and Media
Photo: ONUK

Bernhard Serexhe

ZKM_Gameplay

The Game Platform at the ZKM

At all times and throughout their history humans have played; indeed, one could even say that the entire development of humankind, its evolution both as individuals and as a species, depends to a great extent upon play, whether purposeless or purposeful, the pleasurable and natural exploration of one's abilities and social competence, as well as the testing and constant pushing back of one's limits. Children explore their environment in play, just as both teenagers and adults learn the material and social conditions of our complex world through play.

Thus, naturally, the game as a medium was already a focal point of the ZKM from very early on. Since the mid 1990s, the ZKM | Media Museum has systematically added video and computer games to its collection. And since its opening in 1997 the Media Museum has an entire section dedicated to the world of games where visitors of all ages can explore the myths and the forms of action of this rising digital culture in innumerable video games. As early as 1999 LAN parties in the ZKM's foyer attracted hundreds of gamers who were connected for nights on end. The increasing presence of video games in ZKM exhibitions attests to the growing interest of the art world in this genre. «World of Games: Reloaded» was the updated second edition of the Media Museum's presentation of games which was set up for the ZKM's groundbreaking exhibition *The Algorithmic Revolution*.

Before the turn of the millennium, computer and video games were already a significant economic factor. Their enormous and wide distribution today not only evidences the rapid technological progress since then, but also the increased importance of video games as a general cultural technology. In youth culture, video games have become one of the leading media in digital society. This is why, all over the world, academies of art and design have introduced study courses where the production and design of video games is taught. Through their massive use by all public media, advertising, and the film industry in particular, video games increasingly leave their imprint on our images of real and virtual worlds.

The use of digital technologies in art cannot be distinguished from their use in video games. Artists have always engaged creatively and enthusiastically with the potential of games and play, and thus have contributed substantially to the ongoing development of video games. At the same time, with subversively modified game engines and by programming their own art games, artists have acquired the most up-to-date gameplay skills with the intention of facilitating a differentiated and critical view. From this, new genres have evolved within the last two decades – art games and serious games – which are more likely to be found in exhibitions and festivals than at the gaming conventions of the games industry.

The ZKM opened its third large Game Platform in June 2013; its aim is to present to the public – and especially to its gamers' fan base of all ages – the diversity of new trends and genres in video games. The ZKM's new Game Platform offers a whole spectrum of possibilities: visitors can discover current best-selling video games, historic commercial games, and also get to know – independent of their market

success – games in which the creative and artistic elements are the main focus.

Thus ZKM_Gameplay is in no way the children's section of the Media Museum. This platform is designed for all of our visitors. It offers all visitors enjoyable access to the fascinating world of gaming. And it is a platform that changes constantly, which takes in and adapts to current games and themes.

Start new game!

World of Games 1997
The upper floor of ZKM is completely redesigned in 2013 .
© ZKM | Center for Art and Media

Feng Mengbo: Long March: Restart at MoMA PS1.
ZKM_Gameplay shows the piece as
a 16m long version.
Photo: courtesy of Feng Mengbo

Stephan Schwingeler

Start New Game!

Curatorial Remarks on ZKM_Gameplay

The ZKM | Media Museum as Pioneer
Ever since the ZKM opened its doors in 1997 computer and video games have been permanently on display in the ZKM | Media Museum because they are a significant and integral part of our everyday digital world. Here the ZKM | Media Museum has assumed a pioneering role; by contrast, it is only since November 2012 that New York's Museum of Modern Art has included computer and videogames in its collection, mainly focusing on the aspect of interaction design. /1

Early on the ZKM recognized the importance of video games and how influential they are. In 1995 educator and social worker Friedemann Schindler and the designer Frank den Oudsten started to develop a concept for an exhibition that would portray the different levels of the medium of the video game which they identified as multilayered. This first exhibition, *Welt der Spiele* [world of games], was strongly influenced by Friedemann Schindler and an educational approach to media. Schindler and den Oudsten addressed various complexes of issues in the form of installations (e. g., *Licence to Kill* engages with the portrayal of violence in the mass media). *Welt der Spiele* provided the basis for the ZKM's new game exhibition ZKM_ *Gameplay*.

Video games have evolved and are now very different to those of the early days. Classics like *Pong* (1972) and *Pac-Man* (1980) and contemporary games like *Heavy Rain* (2010) are worlds apart – technically, aesthetically, and above all commercially. Videogames now exist in a diversity of variations, genres, and multifaceted forms, as well as in various art scenes, and they are now a highly complex medium. In the course of its history the videogame has developed its own specific repertoire of forms of expression.

ZKM_*Gameplay* in the ZKM | Media Museum traces these developments and presents the video game as a medium that has achieved its own identity and has now entered a phase in which reflection plays a defining role. /2

The Two Poles of a Video Game: Game and Play
The German word «Spiel» has two meanings in English with various connotations: game and play. /3 A game is often «a form of competitive activity or sport played according to rules» (OED), and play is engaging in «activity for enjoyment and recreation rather than a serious or practical purpose» (OED). In these senses, a game follows specific rules and play does not. The mass noun gameplay means «the features of a computer game, such as its plot and the way it is played, as distinct from the graphics and sound effects» (OED); that is, the way a player interacts with a game. It is a category dealing with the aesthetics of reception: the development of a player's experience of a game in his or her subjective perception. Good gameplay is the most important criterion of a game, be it analog or digital. The multilayered term gameplay is used for the new video games section in the ZKM | Media Museum which has as its theme digital games and their play elements.

Reflecting on Media: The Central Concern

In ZKM_*Gameplay* the medium of the video game is interrogated. The potentialities of the videogame are the focus, and not cementing its conventions. The selection of exhibits prioritizes experimental, unconventional, and artistic forms of the video game. Concentrating on these potentialities of the medium demonstrates how diverse the subject is and at the same time allows its characteristics to emerge clearly.

The idea of facilitating reflection on the medium played a definitive role in the new conception for ZKM_*Gameplay*. The games are subjected to critical scrutiny. The objective of presenting video games is to contribute to investigating the medium and to reveal its implications, conditionalities, and characteristics and render them comprehensible. In this way ZKM_*Gameplay* makes a contribution to social awareness of this ubiquitous phenomenon and fosters competence in using and dealing with the medium. Thus the ZKM | Media Museum intervenes proactively in public discourse and has the possibility to shape and influence it.

ZKM_*Gameplay* presents the exhibited video games and artworks in an interactive, playable form where feasible. ZKM visitors are invited to play the games together and to engage with the works of Game art. A game that is not being played is in a curious state of limbo. An unplayed videogame only exists as static lines of code. Only when it is played can the game develop its potential. For the theory of videogames Alexander Galloway put this in a nutshell: «video games are actions.»/4 And that is precisely what ZKM_*Gameplay* stands for.

New Developments since *Welt der Spiele*

Since the original conception for the exhibition *Welt der Spiele* was formulated (and since its update in 2004 as «reload»), there have been developments in science, scholarship, art, and commerce and these have considerably influenced the new conception for ZKM_*Gameplay*.

The Academic Discipline of Game Studies

In view of the huge cultural and economic significance of video games a branch of academic enquiry has developed that is concerned with the critical study of games, including engaging with the question of the «meanings» of computer games, which is by no means confined to a purely educational perspective. Game studies, which began to form in 1999, views video games as a rich and multilayered subject investigating expressive artifacts. The theoretical work that has come out of Game studies was an important basis for developing ZKM_Gameplay. In the course of developing game theory, art historians – in isolated cases – began to take an interest in the subject from a critical standpoint. The most important outcome of this work was to establish that there is a close relationship between interactive media art and games./7

Heinrich Klotz, founding director of the ZKM, acknowledged as early as 1997 that the entire genre of interactive media art possessed the character of play. Klotz viewed this play element as a distinctive characteristic of interactive media artworks and thus indirectly pointed to the structural common ground of art and games that share freedoms and, at the same time, rules. Discussing Jeffrey Shaw's artwork The Legible City (1988—1991) Klotz referred to Johan Huizinga's book Homo ludens : «Und das Ganze hat etwas Spielerisches. Das Kunstwerk ist wieder Spiel geworden, der Mensch ein Homo ludens» [The whole thing has something playful about it. The artwork has again become a game, and man has become Man the Player.] Klotz makes a clear distinction between two modes of the artwork, which require two specific forms of reception: seeing static images and acting with moving images:

«Falling silent in admiration when confronted with the pure act of seeing recedes in the face of the joy of discovering and acting when presented with the invitation to engage in interactivity. One crosses the border into the realm of play. One enjoys the freedom of an intellectual and sensual game. Interaction is never the quiet of contemplation, but always the moving image, action, playing with changing the parameters within limited possibilities.»/10

Art: Videogames as Artistic Material

From around 1995 artists began to use the medium of video games as material, and/or to engage with the cultural inflences emanating from them as well as to work on them using other media./11 The first example of artists engaging with video games was Orhan Kipcak's and Reinhard Urban's video game modification *Arsdoom* (1995). Since then «Game art» has spawned a rich variety of artworks. Numerous exhibitions since 1999 have been devoted to the products of an artistic engagement with video games./12 Many internationally renowned artists have created works that refer to video games; for example, Feng Mengbo's *Long March: Restart* (2008) and Bill Viola's *The Night Journey* (2010). To present, document, and commentate on the positions of the artists is one of the main tasks of ZKM_*Gameplay*.

Commerce: Indie Games as an Alternative to Mainstream Video Games

Naturally, commercial video games are also featured prominently in ZKM_*Gameplay* because their volume is greatest in the entertainment industry. A firmly established part of the globally active entertainment industry, digital games are economically a very significant factor whose popularity rivals Hollywood cinema, which in turn video games influence in terms of images and sound as well as being influenced by them.

In addition video games are an important driver of innovative technological development and a significant reason for the ongoing increased capabilities of hardware, which of course also needs to be seen in the context of profits and the market.

Parallel to the artistic development and art history of video games, a trend can be observed where commercial games are beginning to probe and interrogate the characteristics and conventions of the medium. At present video games are in a phase of self-observation and self-reflection which makes them open to all kinds of experiment. These trends are most marked in the segment of «independent» yet nevertheless market-oriented indie games.

Indie games offer alternatives to mainstream commercial games. One of the focuses of ZKM_*Gameplay* is on these games, some of which have been created by just one or two authors, such as Jason Rohrer's *Passage* (2007), Krystian Majewski's *Trauma* (2010), Ed Key's and David Kanaga's *Proteus* (2009—2012). Examples of commercially successful indie games are Markus «Notch» *Persson's Minecraft* (as of 2009) and *Journey* (Jenova Chen, thatgamecompany, 2012). Indie games now have their own festivals, infrastructure, and funding. They frequently explore the medium in a qualitatively higher way than the AAA games of the big publishers.

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Annotations

/1
See http://www.moma.org/explore/inside_out/2012/11/29/video-games-14-in-the-collection-for-starters/, accessed 04.05.2013.

/2
Currently the videogame, according to Lorenz Engell, who sees media as going through four stages of development, is in its fourth phase of «enhanced self-observation and reflection.» The medium is developing «access to itself, to its past phases of development, to the set of rules it has developed, and subjecting them to scrutiny. In many cases this results in, for example, a period of experimental probing and an expansion of the videogame's technical, aesthetic, and pragmatic

options. […] a process of aestheticizing which is often formalized in the formation of an avant-garde. The opening up of the medium to art […] is a typical form that this process takes, which ushers in the phase of reflection or prepares the ground for it. (Hensel 2011a, p. 56. Lorenz Engell quoted in: Engell 2001, pp. 52 and 54; translated from the German by Gloria Custance). Lorenz Engell identifies four phases in the development of a medium:
1. Spectacular phase.
2. Phase of withdrawal and orientation on other media: photography orients itself on painting, film on theater, the videogame on film.
3. Self-evident phase: the medium as a medium disappears and refrains from raising itself as an issue due to its intention to become absorbed in «transparency.»
4. Phase of increased self-observation and self-reflection, self-thematization, self-criticism, avant-garde formation, and opening of the medium to art;
see Engell 2001.

/3
In *Les Jeux et les Hommes* (1958) the French sociologist and philospher Roger Caillois introduced the terms ludus and paidia for the two poles of game, which proceeds according to rules, and play as a free activity; see Caillois 1982 (German edition), p. 20.

/4
Alexander R. Galloway: *Gaming. Essays on Algorithmic Culture*, Minneapolis, 2006, p. 2.

/5
On the interdisciplinary development of Game studies see Julian Kücklich: Invaded Spaces. Anmerkungen zur interdisziplinären Entwicklung der Game Studies, in: *Siegener Periodicum zur internationalen empirischen Literaturwissenschaft – SPIEL*, vol. 23: no. 22004, pp. 285—304; Aarseth 2001, Perron and Wolf 2003, Raessens / Goldstein 2005, Mäyrä 2008, Perron and Wolf 2009.

/6
See: Schwingeler 2008, Hensel 2008, Schwingeler and Gehring 2009, Lohoff and Schwingeler 2009, Hensel 2011, Hensel 2011a, Beil 2012.

/7
Australian academic Jason Wilson traced a media-archaeological line from Nam June Paik's (*1932—†2006) TV artworks to early computer games such as *Pong*; they were created at around the same time and also share the same zeitgeist informed by «technological utopianism» in the context of the 1960s and 1970s. This evidences the historical connection between digital games and interactive media art; see Wilson 2007, pp. 123—185; Wilson 2006. In an essay published in 2009 Söke Dinkla also linked video games and interactive media art, assigned them to different contexts (entertainment industry vs. art world), and referred to them as an «(un)gleiches Geschwisterpaar» [dissimilar siblings]. Interactive media art clearly belongs to the realm of art whereas video games exist under the auspices of the entertainment industry (Dinkla 2009). However, artists have now transferred video games to the art system context utilizing various strategies. Today there art computer games that fall into the category of interactive media art as well as the category of videogames. This renders any artificial separation between interactive media art and videogames null and void. In *Das systemische Bild* Inge Hinterwaldner remarks: «Diese Trennung in Computerspiele einerseits und interaktive Kunst andererseits lässt sich heute nicht mehr aufrechterhalten, da es künstlerische Computerspiele gibt» (This division into interactive media art on the one side and video games on the other is no longer sustainable because there are now art videogames.» (Hinterwaldner 2010, p. 380, translated from the German by Gloria Custance).

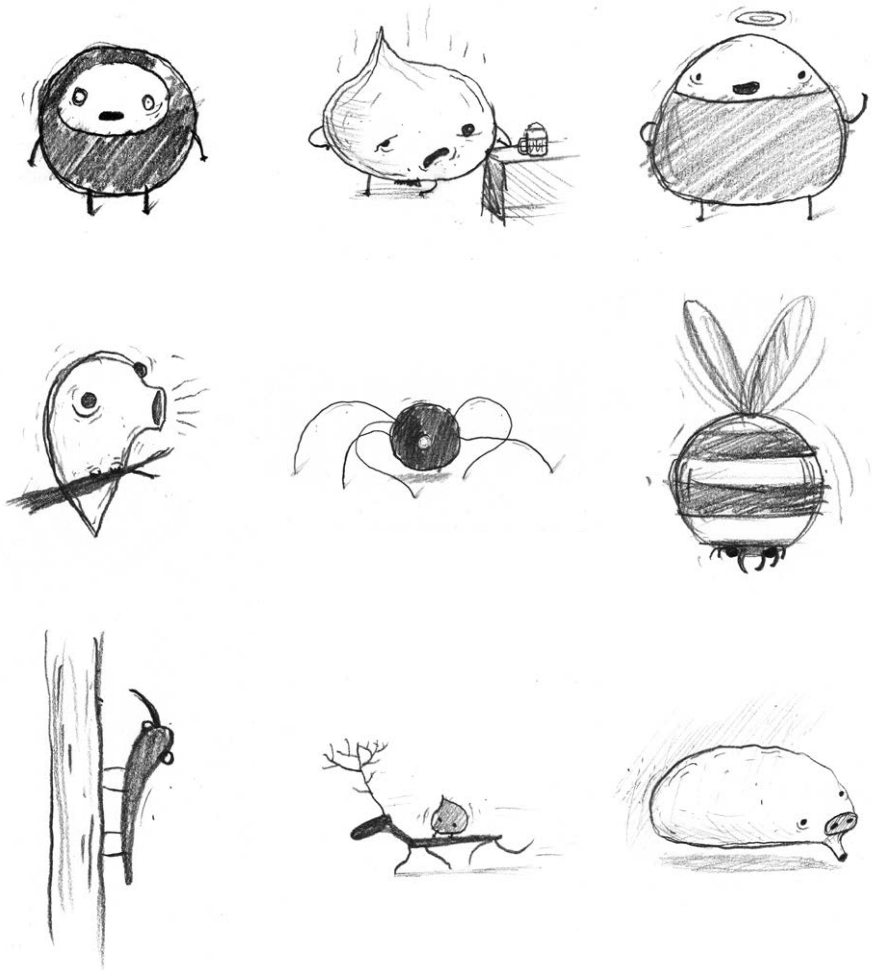
/8
Homo ludens or «Man the Player» was first published in 1938; see Johan Huizinga: *Homo-Ludens: A Study of the Play Element in Culture (Proeve eener bepaling van het spelelement der cultur)*, trans. R. F. C. Hull (Haarlem, 1938; Routledge and Kegan Paul, 1949).

/9
Heinrich Klotz (ed.): *Kunst der Gegenwart*, Munich, New York, 1997, p. 27; translated from the German by Gloria Custance.

/10
ibid., p. 23; translated from the German by Gloria Custance.

/11
See Schwingeler, Stephan: Kunst mit Computerspielen: Künstlerische Strategien und kunsthistorische Bezüge, in: Wimmer, Jeffrey, Mitgutsch, Konstantin und Rosenstingl, Herbert [eds.]: *Applied Playfulness. Proceedings of the Vienna Games Conference 2011: Future and Reality of Gaming*, Vienna, 2012, pp. 219—235.

/12
Examples of exhibitions, which have presented artistic video games or modified games, are: *Synreal* in Vienna (1999), *Cracking the Maze* (online, 1999), *The Game Show* (Mass MoCA, North Adams, 2001—2002), *Games: Computerspiele von KünstlerInnen* (Phoenix Halle, Dortmund, 2003), *GameArt* (Völklinger Hütte, Völklingen, 2003), and *Artgames* (Ludwigforum, Aachen, 2005). The following related exhibitions were mounted as a trilogy at *LABoral Centro* in Gijón, Spain: *Gameworld* (2007), *Playware* (2007—2008), and *Homo Ludens Ludens* (2008). Games were already exhibited in 1989: the exhibition curated by Rochelle Slovin, *Hot Circuits: A Video Arcade* (6 June 1989—20 May 1990), was a non-artistic, history of technology show which presented early slot machines at the Museum of the Moving Image in New York.



Amanita Design: Botanicula
concept sketches, 2012, courtesy of Amanita Design

Adam Rafinski

Are you ready for Gameplay?

An exhibition about the culture of contemporary play

Nonetheless word is beginning to get around that art is a kind of game, that one can approach painting or photography with the same categories as bowling or poker, and that these categories can be expressed in the form of algorithms. This is beginning to be talked about because the general public is obviously becoming increasingly aware of video games./1

VILÉM FLUSSER

Whereas in the twentieth century film and cinema were responsible for the dominance of the moving image, today, in the twenty-first century, video games are providing a wide audience with access to major achievements of media art. It is not developments in computer, information, and communications technology that have left their mark on our experience of games, but the artistic interrogations and explorations undertaken since the 1960s. Performance, Concept art and Context art, as well as the expanded concepts of art and media are closely tied to the development of the video game. This has led to an increasingly upward revaluation in social terms of gaming activities in the entertainment and culture industries. The scope for game development grows exponentially with the popularity and economic success of games. And our general understanding of games changes correspondingly.

The ZKM | Media Museum in Karlsruhe was the first cultural institution in the world to set up a dedicated exhibition for games. Originally inaugurated in 1997 ZKM_Gameplay addresses both the general public and a specialist audience; it explores the historical, cultural, and artistic importance of the algorithmic mass medium of games and their culture. The ZKM_Gameplay platform is a unique forum for examining the cultural significance of this medium in all its facets in a dialog with museum visitors.

The Game as an Art Form

Games represent a new lively art, one as appropriate for the digital age as those earlier media were for the machine age. They open up new aesthetic experiences and transform the computer screen into a realm of experimentation and innovation that is broadly accessible. And games have been embraced by a public that has otherwise been unimpressed by much of what passes for digital art./2

HENRY JENKINS

A main focus of ZKM_Gameplay is how artists use video games as material and the treatment they receive in contemporary art practice. Recently there has been more overlap of commercial indie games and art games. The popularity of indie games has encouraged the commercial availability of art games. The huge influence of Marcel Duchamp's understanding of art and the advent of avantgarde movements like Futurism, Dada, und Fluxus introduced strict formulations of rules in the production process of art. The question of whether video games can be compared to great works of the theater, cinema, and so on can only be addressed if they are accorded a place in museums. This is the precondition for making any comparison of this kind. The greatest challenge is the aspect that playing games is a genuinely pointless pursuit, which has been radically expanded in the twenty-first century through the enhanced experience

of electronic virtual worlds. However, ZKM_Gameplay has revealed that on the one hand games spur the free flow of the imagination and improvisation (play), and on the other bring forth systematic and cultural mechanisms that enable us to shape our picture of reality together (game). ZKM_Gameplay's strength lies in the fact that it raises visitors' awareness of both extremes and challenges preconceived notions like video games cannot be fun and at the same time have the potential for critique.

Game design is design of experience. Thus the design of an exhibition, which has games as its subject, must be a place where games can both be played and at the same time reflected upon. If the space is too predetermined, one runs the risk of undermining the museum as a space for reflection. If it is too indeterminate, one runs the risk of not doing justice to the aesthetic potential of the works. ZKM_Gameplay succeeds in creating the right balance and allows visitors to forge links between history, culture, and the artistic potential of the medium of games. In his book *Homo ludens: A Study of the Play-element in Culture* Johan Huizinga shows how the excitement of undertaking an experiment with an uncertain outcome is intimately connected with the creation of cultural artifacts. Consequently, the museum needs to become a highly concentrated playground and experimental laboratory for which the ZKM in Karlsruhe, with its orientation and structure, is predestined.

Games need to be played, otherwise they have no opportunity to develop their argument. To play means to accept that the outcome of the game is uncertain, to take a gamble. In games we find that kind of magic, which we express in marveling at «the first time». As Huizinga put it: «Really to play, a man must play like a child.»/3 Games live off their «procedural rhetoric» which is only expressed when their rules are applied,/4 and this implies that as a medium they are incomplete. This is only meaningful on condition that we pretend./5 Thus the presentation of games confronts the museum with challenges similar to exhibiting Fluxus objects or Land art, for example. As soon as such works are transferred to the secure and tranquil environment of the museum, it happens only too often that they lose the possibility of finding complete expression. Artistic forms of games are impossible to exhibit if they do not have the opportunity of being played and thus claiming the space and time needed for themselves. For this reason ZKM_Gameplay adapts to the open, incomplete, and uncertain character of its exhibits. In other words: the museum visitors and the museum as an institution both have to become gamers/players in order to gain access to the works.

The Museum as a Playground

If photographs are images, and films are moving images, then video games are actions. Let this be word one for video game theory. Without action, games remain only in the pages of an abstract rule book. Without the active participation of players and machines, video games exist only as static computer code. Video games come into being when the machine is powered up and software is executed; they exist when enacted./6

ALEXANDER GALLOWAY

In the nineteenth century it was assumed that simply by exhibiting objects people would gain access to knowledge. Today we know that learning is an active process. Yet many museums still adhere to the old didactic concept of imparting information. By contrast, the ZKM invites its visitors to participate in generating meaning through playing together. «Man only plays when in the full meaning of the word he is a man, and he is only completely a man when he plays.»/7 Museological displays only do justice to the culture of gaming if they take this insight of Friedrich Schiller's to heart. Then the exhibition becomes a living stage and the visitor an actor and performer. Curators, artists, and the visitors to this form of art and discourse would certainly not be satisfied if they were presented with a totally predictable selection of works. Thus ZKM_Gameplay seeks a balance between the first-time amazement intrinsic to the game (play), and the discursive, cultural value of games with the medium (game). With this in mind visitors are invited to be proactive and assume various roles in the museum ritual, for example, the academic, the tourist, the expert, the cultural aficionado, the romantic, the leader of a group, and so on. In this way the Gameplay platform allows visitors to see their museum visit with different eyes, enhanced by their confrontation with the culture of games and gaming. In their multiple roles visitors are invited to see themselves as co-producers of ZKM_Gameplay, together with the ZKM | Media Museum, and to play with us.

Annotations

/1
Vilém Flusser, Gesellschaftsspiele, in: Hartwagner et al. (eds.): *Künstliche Spiele*, Munich, 1993, p. 114, translated from the German by Gloria Custance.

/2
Henry Jenkins, Games: The New Lively Art, in: John Hartley (ed.): Creative Industries, Malden, MA, 2005, p. 313; available online: http://web.mit.edu/cms/People/henry3/GamesNewLively.html [accessed 11.06.2013].

/3
Johan Huizinga, *Homo ludens: A Study of the Play-element in Culture*, London: Routledge, 1949, p. 199.

/4
See Ian Bogost, *Persuasive Game: The Expressive Power of Videogames*, Cambridge, MA, 2007.

/5
See Gregory Bateson, Eine Theorie des Spiels und der Phantasie, in: Claus Pias and Christian Holtorf (eds.), *Escape! Computerspiele als Kulturtechnik*, Cologne, 2007, pp. 193—208.

/6
Alexander R. Galloway, Gaming. *Essays on Algorithmic Culture*, Minneapolis, 2006, p. 2.

/7
Friedrich Schiller, Letters upon the Aesthetic Education of Man. Letter XV, § 9. *Literary and Philosophical Essays*. Vol. XXXII. The Harvard Classics. New York: P.F. Collier & Son, 1909—1914; Bartleby.com, 2001. www.bartleby.com/32/. [accessed 3.10.2013].

/1

Jodi
(Joan Heemskerk, *1968
and Dirk Paesmans, *1965)
SOD
1999

—

Video game modification based on
Wolfenstein 3D
(id Software, 1992),
PC

—

The video game modification SOD by the Dutch-Belgian artist duo JODI, is based on the controversial first-person shooter *Wolfenstein 3D*, which was withdrawn from circulation in Germany. In *Wolfenstein 3D* the player has to escape from a castle, and defend himself against Nazis. The final opponent is Adolf Hitler himself, who appears as the very epitome of a supervillain in a martial combat suit.

First-person shooters such as *Wolfenstein 3D* aim to produce the impression, that the players move into the environment of the images presented in perspective. SOD is a deconstruction of this illusion space, which is suggested by the imagery of *Wolfenstein 3D*. The visuals of the game are translated into objects. JODI have replaced every image element of the original game with simple geometrical shapes or letters. The scenario of the action game, which dramatically embellishes the action, and narratively underpins it, is in this way entirely negated and critically disrupts the game's structure.

The game audio and game rules remain unchanged. However, the abstract user interface does have an indirect influence on the rules of the gameplay: The game becomes a game with the image per se, which comes close to a concrete computer game that only has itself as the subject. This has the effect of firming up the actions that are performed repeatedly during a computer game in a feedback loop consisting of action and reaction.

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Photo: courtesy of Jodi

/2

Jodi
(Joan Heemskerk, *1968
and Dirk Paesmans, *1965)
Max Payne Cheats Only
2005

—

Machinima based on *Max Payne*
(Remedy, 2001),
digital video

—

Max Payne Cheats Only is a video that shows how the artists take control over the action game *Max Payne*. Instead of playing the game the intended way, that is, following the story, shooting enemies, and moving from section to section through the environments of the game, JODI use the software in the opposite way to the game's idea. Through their actions, JODI send the game into unresponsive hangs and endless loops. Their performance gives rise to absurd perspectives, image errors, and repetitions, which can give the impression that the program has crashed, and is stuck in an error state.

Further, the *Max Payne* game is in a kind of open mode, which originally was only intended for the developers. In this mode, it is possible to intervene in the program's structure, and it can be altered and modified in a specific way: for instance, it is possible to steer the character through seemingly massive walls. Gamers use such
interventions in games to gain advantages in the game (for example, invulnerability, infinite lives, etc.). This behavior, known as «cheating,» has its own tradition and a rich culture in videogame history.

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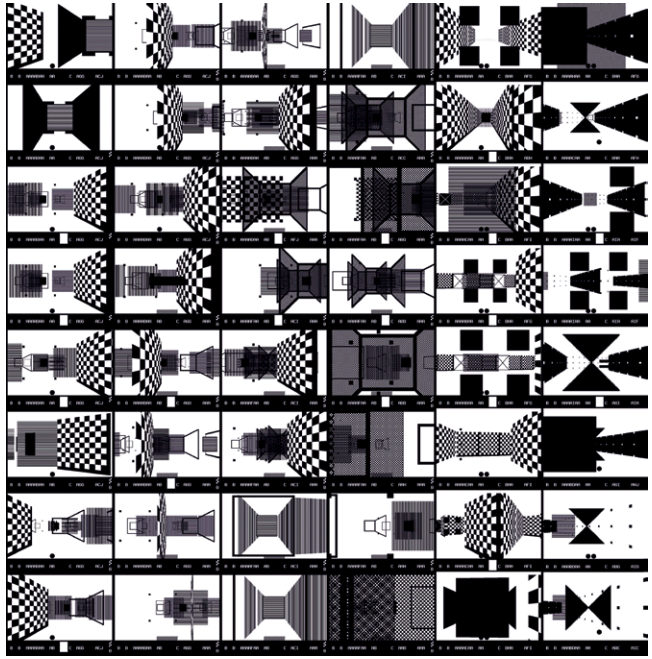
Photo: courtesy of Jodi



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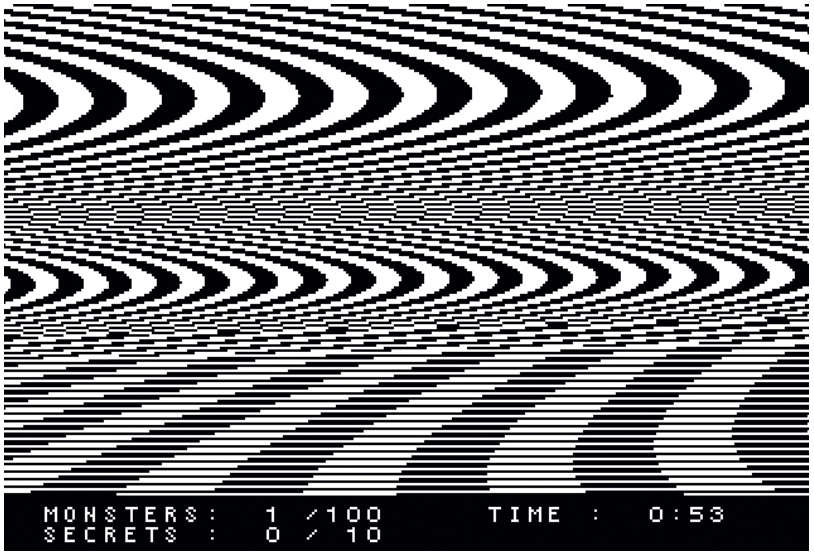

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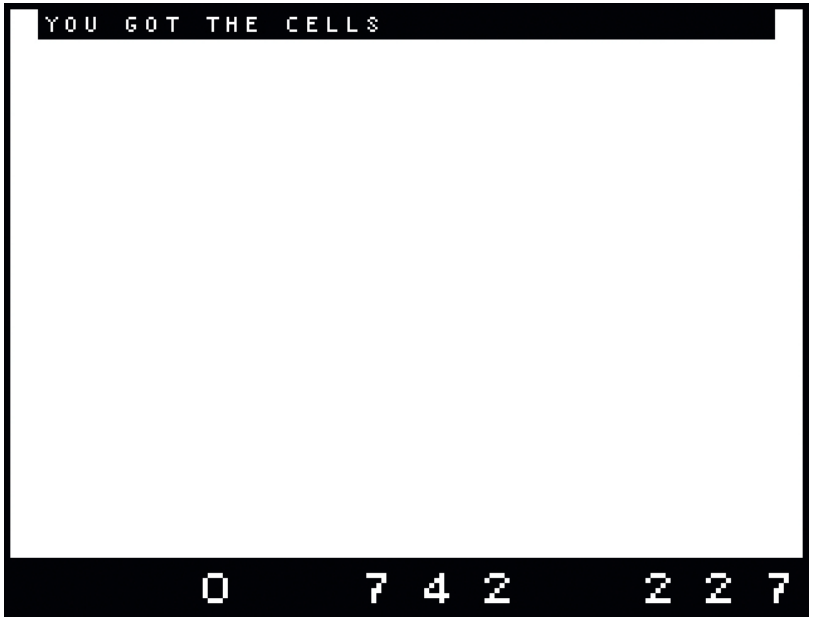

/4

/3
/4

Jodi
(Joan Heemskerk, *1968
and Dirk Paesmans, *1965)
***Untitled Game: CTRL-Space* and**
Untitled Game: Arena
1998—2001

—

Computer game modification
based on *Quake* (id Software, 1996),
PC

—

JODI's series Untitled Game consists of various levels for the first-person shooter *Quake*. The levels presented in ZKM_Gameplay are CTRL-Space and Arena.

CTRL-Space is the first attempt by the artists Heemskerk and Paesmans to utilize videogames as material. A prototype was already developed in 1998 for the Budapest media art center C3. The work transforms the play space of the first-person shooter *Quake* into abstract forms, which can be altered by the players.

The level Arena is the most extensive modification of the original *Quake* game: The players are confronted with just a white surface, which is framed by image elements.

Arena represents the transformation of a game into an entirely unplayable one, and is the most radical intervention in the structures of the gameplay that is actually possible. The degree of abstraction goes as far as the complete eradication of representational images, which was partially achieved by deleting lines of code. The artistic strategy of deletion used evokes associations with monochrome images in art history, such as Rauschenberg's *White Paintings* (1951), as well as his erased drawing *The Erased De Kooning Drawing* (1953). In *Zen for Film*, in 1963 Nam June Paik let an unexposed, «empty» roll of film run through a projector.

In a contradictory way, the deletion of the image data has both the effect of making one aware of the constructedness of the image and of highlighting the continuing existence of the image. The audio level is still intact, and the game allows the players to enter commands. By deleting the image information, however, it is impossible to use the computer program in the originally intended manner; that is, to play the game. The audio and the changes to the framing image elements give rise to the impression that the game is still taking place behind the opaque white field, like behind a milky pane of glass. Thus Arena is a contradictory construct – an unplayable game – which offers the user certain actions, but defies being used in any way that makes intuitive sense. The radical contradiction of Arena brings out the conditionalities of the video game medium, although and especially because the controlling comes to nothing, and there is nothing more to be seen.

—

Photos: courtesy of Jodi

/5

Mary Flanagan (*1969)
Pile of Secrets
2011
—
digital video
—
For her video work *Pile of Secrets*, the American artist Mary Flanagan collected several terabytes of video material from popular computer games, which she has assembled into themed videos. In ZKM_Gameplay her videos Jump, Ascend, Corridor, and Treasure can be watched. Game characters from various video games repeat the same movements, which are strikingly similar from game to game: The characters jump, move upwards, walk along corridors, and collect things.

This found-footage material of video games is subjected to analysis by the artist whereby she assembles it into categories. This demonstrates very clearly the basic structural elements of video games. Additionally, the presentation as an endless loop enhances this impression. In the repetitions Flanagan's videos show the formative actions of video games.
—
Photo: courtesy of Mary Flanagan

/6

Bill Viola (*1951)
The Night Journey
work in progress
—
video game,
PC
—
In 2005 the video artist Bill Viola began working on a computer game with the team at the Game Innovation Lab of the University of Southern California called *The Night Journey*. Players move within a three-dimensional environment, which they experience from the first-person perspective. The surroundings constantly adapt in a subtle way to how the player treats the environment, how they explore it and get to know it. The X button on the controller does not fire off a shot as per usual, but triggers «thoughts.» Reflection sets «dream sequences» in motion, which are computed according to the actions of the players.
Audiovisually *The Night Journey* is comparable to Viola's video works. The graphic artists participating in the project have modelled the computer graphics on the image lines of video, and translated the grainy, almost blurred appearance of Viola's video images. The game utilizes the entire range of video aesthetics and renders them in an interactive form of computer graphics.
—
Photo: courtesy of USC Game Innovation Lab


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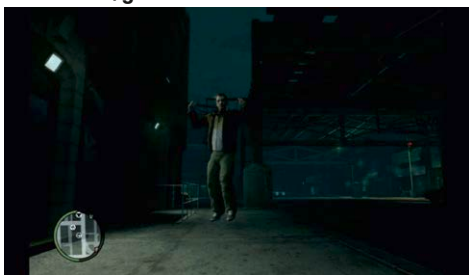

Feng Mengbo (*1966)
Long March: Restart
2008
—
video game,
PC
—
Since the 1990s, we have seen artists turning their attention to video games. The Chinese artist Feng Mengbo is one of the pioneers of this new artistic focus on digital games. In 2002, for the first time an international audience became acquainted with an artistic video game modification through Fengbo: the artist presented his work Q4U (2000/02) at the Documenta11 in Kassel.

The spectacular work Long March: Restart, which is presented in ZKM_ Gameplay, leans aesthetically towards the two-dimensional videogames of the 16-bit era. In Feng Mengbo's video game, the world of symbols of communist propaganda mixes with set pieces of the Western consumer world and Asian stereotypes in video games such as Street Fighter II (the sumo fighter E. Honda and the Chinese fighter Chun Li, well-known characters from this game, both make an appearance).

The installation, which is playable via a wireless controller, consists of a sixteen-meters long projection, which presents the game's action. Thus, in form and content, the overtly political work satirizes the heroic myth of the Long March of the Communist Party of China's Red Army in the years 1934 and 1935.
—
Photo: courtesy of Feng Mengbo

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/8

Alan Kwan (*1990)
Bad Trip
2012
—
video game,
PC
—
Since November 2011, the artist Alan Kwan from Hong Kong has been recording every step he takes with a camera that is attached to his glasses. Every evening, the artist uploads the video material to the video game *Bad Trip*, which Kwan designed and programmed himself. The players can then experience the images as memory fragments in the 3D environment of the game, and metaphorically navigate the memories of the artist.

The work *Bad Trip* foregrounds the highly topical themes associated with lifelogging and the Quantified Self movement, which are currently in the news not least to the recent launch of *Google Glass*, a wearable computer with an optical head-mounted display (OHMD).
—
Photo: courtesy of Alan Kwan

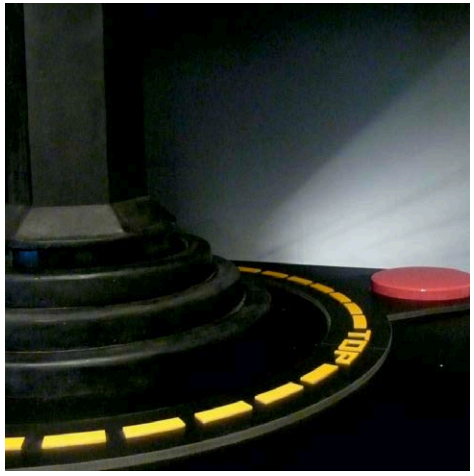
/9

Mary Flanagan (*1969)
[giantJoystick]
2006
—
sculptural interface,
video game (emulated Atari 2600)
—
Mary Flanagan's sculptural work *[giantJoystick]* consists of a functioning joystick with which the visitors of ZKM_Gameplay take control over classic arcade games for the console Atari 2600. The joystick is approximately three meters high and, because of its sheer size, requires players to join forces to move it and play the game together.

The sculpture, whose dimensions are monumental, steers attention towards the spatial, performative, and social aspect of gaming. In ZKM_Gameplay, Flanagan's joystick is positioned at the center of the exhibition. It raises the players onto a pedestal, and in this way demonstrates that video games do not only consist of images, sounds, and stories, but they mainly develop their potential through players acting in them and with them. At the same time, Flanagan's work raises questions about the fundamental way we treat computers and devices.

[giantJoystick] was commissioned in 2006 by Furtherfield (formerly HTTP Gallery), London.
—
Photo: Installation view during an exhibition in LABoral, Gijón, courtesy of Mary Flanagan

/9



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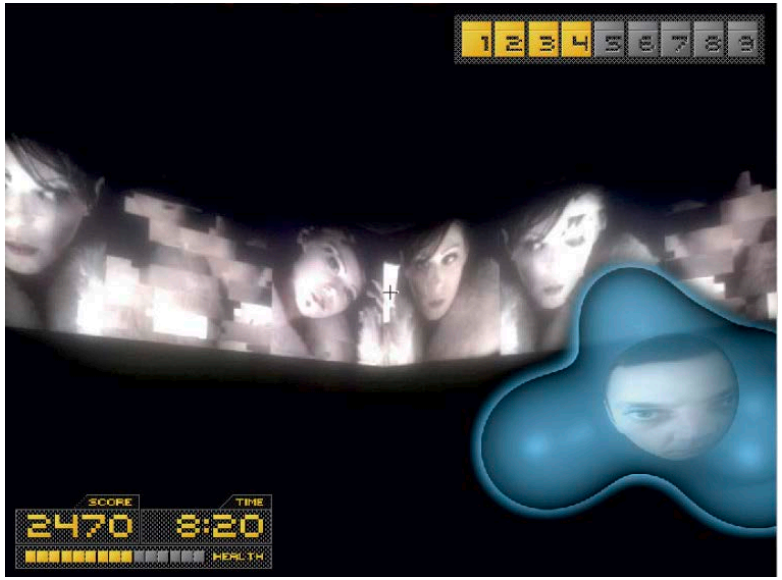

/10

Orhan Kipcak (*1957)
Reinhard Urban (*1963)
Arsdoom
1995
—
computer game modification
based on *Doom II* (id Software, 1994),
PC
—
In 1995, the architect Orhan Kipcak was invited by Peter Weibel, who at the time was the art director of the Ars Electronica and is now CEO of the ZKM, to produce an artwork for the Ars Electronica media art festival. In collaboration with the architect and mathematician Reinhard Urban, Orhan Kipcak created an interactive work. The result was a video game modification based on the engine on which the games *Doom* and *Doom II* run – id Tech 1 (id Software, 1993). The modification *Arsdoom* was produced with various level editors and AutoCAD software. Arsdoom marks the entry of computer games as artistic material in art history.

In *Arsdoom*, the audiovisual interface of the brutal first-person shooter Doom has been changed completely. This redecoration presents the navigable environment of the original game as an art exhibition: textures on the walls are digitized depictions of artworks. The spatial structures of the video game modification are a model of the Brucknerhaus in Linz, which at the time was the venue of the Ars Electronica. *Arsdoom* was exhibited in the Brucknerhaus, thus presenting a virtual copy of the exhibition hall.

In the digital environment, the players encounter enemy characters. They are digitized faces of various artists and other well-known people involved in Ars Electronica – for instance, Peter Weibel Jörg Schlick, Ecke Bonk, and Heimo Zobernig. The weapons in this first-person shooter refer to figures in recent art history.
—
Photo: courtesy of Orhan Kipcak

/11

Orhan Kipcak (*1957)
Arsdoom II
2004
—
video game,
PC
—
Arsdoom II is the sequel of the computer game modification Arsdoom, which was created in 1995 for the Ars Electronica media art festival. *Arsdoom* presented the event location of the Ars Electronica – the Brucknerhaus in Linz – as a virtual model within the game. *Arsdoom* is widely regarded as introducing the computer game as material into art. It cofounded the genre of artistic video game modifications.

The sequel *Arsdoom II* with more up-to-date technological instruments, which freshens up the original concept after ten years. The location of the shooter is the ZKM. In *Arsdoom II*, the visitors of ZKM_Gameplay can navigate the halls of the ZKM in the game. This duplicates their spatial situation: the players are actually present in the room that they explore in the computer game.
—
Photo: courtesy of Orhan Kipcak

/12

Thatgamecompany
Journey
2012
—
video game,
PlayStation 3
—
Journey is an award-winning independent game for the game console PlayStation 3. The players take control of a nameless character navigating a non-specified desert landscape. The goal is obviously represented by a mountain, which looms mysteriously on the horizon. During the journey through the desert, the players can encounter a second character in the game environment. This character is the representation of another real yet anonymous person, who is brought into the multiplayer game via the Internet.

The figures cannot communicate via speech or text, only by a musical chime. Through teamwork, both figures reach their goal in the end.

A musical side note: The composer Austin Wintory's soundtrack for *Journey* was nominated for a Grammy in the category Visual Media. Previously, only movies had been nominated in this category. With *Journey*, for the first time a computer game was shortlisted for the world's most important music award.
—
Photo: courtesy of thatgamecompany, © Sony Computer Entertainment

/13

Thatgamecompany
Flower
2009
—
video game,
PlayStation 3
—
In *Flower*, the players slip into a special role: they take control of the wind, which carries petals over lush grass landscapes. Flowers give up further petals. In this way players interact with their environment, and make grey areas blossom with colour.

In the first-person perspective, a fast flight over the game's landscapes develops. This makes the game's world the main focus in *Flower*. The game shows in an impressive way that the first-person perspective in video games does not only have to be reserved for shooters or racing games, but can also evoke the feeling of flying over meadows of flowers.
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Photo: © Sony Computer Entertainment

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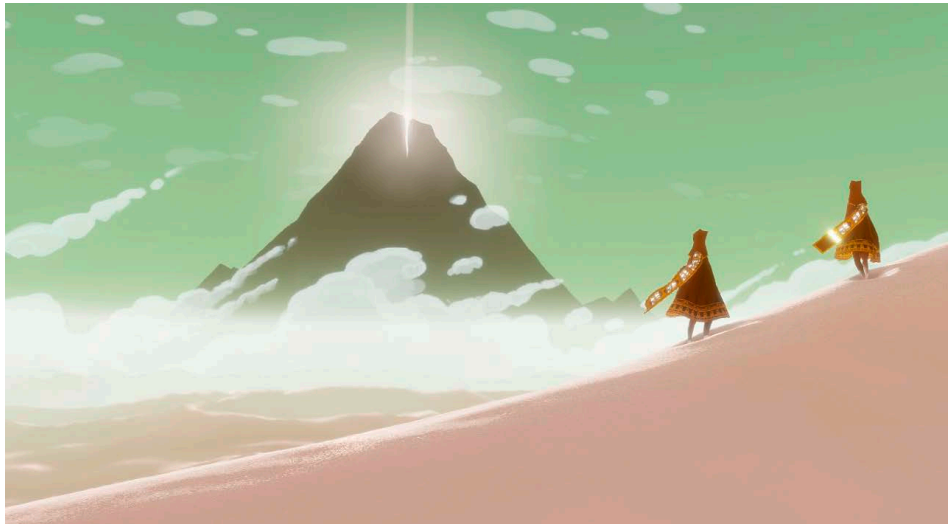

/14

Niklas Roy (*1974)
PING! Augmented Pixel
2011
—
interactive video installation,
video camera, ATmega 8 microcontroller
—
PING! is an interactive video installation in which the viewers become parts of the image via augmented reality techniques and are able to interact with the image. This work by the Berlin artist Niklas Roy is a homage to the computer game classic *Pong* from 1972, and translates its way of functioning into the context of media art.

It shows a square pixel, which moves across the screen. Recorded by a camera, the viewers can enter the image and seemingly touch the pixel. A «touch» influences the direction of the pixel. A game with the pixel develops, which becomes a plaything and a toy.
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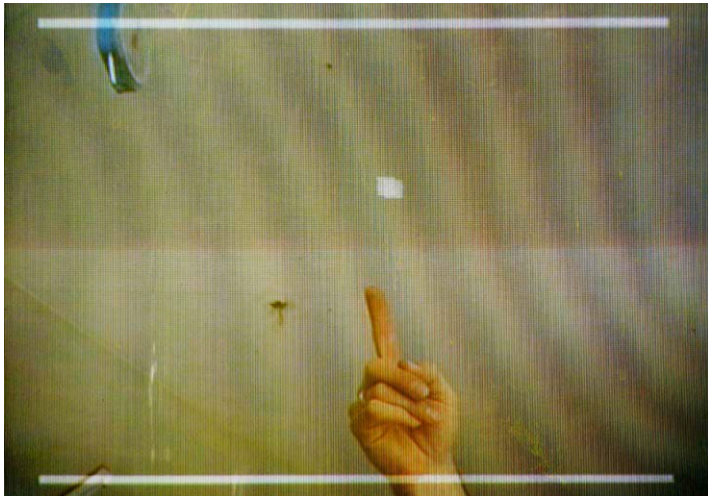
Photo: © Niklas Roy



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Institut für Angewandte und Numerische Mathematik (IANM), KIT und Liegenschaftsamt, Stadt Karlsruhe
[Institute for Applied and Numerical Mathematics, Karlsruhe Institute of Technology and Liegenschaftsamt of the City of Karlsruhe]
Virtueller Flug durch Karlsruhe
[virtual flight through Karlsruhe]
2011
—
interactive installation,
PC, Kinect
—
The *virtual flight through Karlsruhe* allows the viewer to explore the fan-shaped layout of the city from a bird's eye view. To go on a virtual flight through Karlsruhe, one stands in front of the screen. With arms outstretched, the user navigates the flight through the three-dimensional urban landscape. Movements of the right hand change the perspective; movements of the left hand change the direction.

The project was a collaborative endeavor of the local authority real estate office of the city of Karlsruhe, the Engineering Mathematics and Computing Lab (EMCL) of the Karlsruhe Institute of Technology (KIT), and the ZKM.
—
Photo: © Liegenschaftsamt Karlsruhe

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Quantic Dream
Heavy Rain
2010

—

video game,
PlayStation 3

—

Heavy Rain is an adventure in which players go on a hunt for a serial killer. The game is impressive because of its almost photorealistic graphics and its dense and sombre atmosphere, reminiscent of Film Noir detective films. In this thriller in the form of a game, there is special focus on the story, which is told in many cutscenes. The player's actions continually trigger new cutscenes. The decisions made by the players directly influence how the story develops.

The game, which belongs to the genre of the interactive film, clearly illustrates the distinctions between the two media forms of video game and film: *Heavy Rain* is a hybrid of film and game, which keeps switching between narration and interaction, passive observation and active action. The game also shows two other things: first, it demonstrates the current state-of-the-art of real-time computed, interactive 3D graphics. Second, it illustrates how some computer games try to equal the «old» medium of film.

—

Photo: © Sony Computer Entertainment

/17

Team ICO
Shadow of the Colossus
2005

—

video game,
PlayStation 2, PlayStation 3

—

In *Shadow of the Colossus* players battle with enormous creatures. The character controlled by players is confronted with giants as big as a house, who stand in the protagonist's way like a multi-story building. To defeat these colossi the player has to climb up the creatures. It is as though architecture has come to life in a spectacular way:

The legs of the colossi have a basis and cornices. On their backs are galleries and balconies. Their stone limbs are richly decorated. The giants rage and riot, and try to shake off the players. The action is embedded in a mysterious story, which often remains very vague. The protagonist fights the colossi to save the life of a girl. Where the mysterious, gigantic creatures come from, or whether they are good or evil in the conventional logic of a computer game, remains unclear.

—

Photo: © Sony Computer Entertainment

/18

Lieven van Velthoven (*1984)
Room Racers
2010
—
interactive installation
—
The racing game *Room Racers* combines the virtual world with the real world via an interactive game interface. The players can custom-design the race track with randomly selected objects. With the help of an infrared camera mounted on the ceiling, which recognizes the outlines of the objects on the playing surface, the race track is determined. At all times, the software of the game can recognise changes made to the boundaries of the race track and integrate it in the course of the track without stopping the game. A projector projects virtual racing cars onto the track, which can then be controlled by the players. Different modes of the game also allow races with several drivers, for example. The Dutch game developer Lieven van Velthoven developed the video game while he was studying media technology at Leiden University.
—
Photo: courtesy of Lieven van Velthoven

/19

Giant Sparrow
The Unfinished Swan
2012
—
video game, PlayStation 3
—
In *The Unfinished Swan*, the players follow a swan, which has escaped from a painting. At first, the game's world consists of an entirely white, indeterminate space in which orientation is not possible. At the touch of a button, black «paint» is shot, which leaves large splotches of color on walls and objects, and renders the surroundings visible through colouring them. In this way the space can be defined, and possible ways through the game's spaces become visible. The stark black and white aesthetics are occasionally disrupted by the yellow footprints of the escaped swan. *The Unfinished Swan* is a first-person shooter, which functions entirely without violence, and draws its action exclusively from exploring the spatial structures of the game's world.
—
Photo: © Sony Computer Entertainment

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Krystian Majewski (*1981)
Trauma
2011
—
video game,
iPad
—
Trauma tells the story of a young woman who survives a terrible car crash. While she recuperates in hospital, she puts the fragments of her memory back together in her dreams. Who is she? What did she do before the crash? What happened to her parents?

In *Trauma*, the players experience these dreams as an adventure. The journey through the subconscious of the storyteller leads to lonely places, where a spooky atmosphere reigns. The classic point-and-click principle is reinterpreted by a gesture-controlled interface, and surreal-looking photographic aesthetics.
—
Photo: courtesy of Krystian Majewski

/21

Adam Saltsman (*1982)
Canabalt
2009
—
video game,
iPad
—
Adam Saltsman created *Canabalt* during a game design competition in just five days. In music, one would speak of an impromptu. The game idea is simple but elegant: The character runs automatically from left to right, all the while increasing its speed. The gamers only have one action available to them –making the character jump up at the push of a button. This makes the character jump from roof to roof, evade obstacles, and flee from an invisible danger.

The simplicity and compelling nature of the game mechanics have led to *Canabalt* founding a new sub-genre of platform games. These days, there are vast numbers of these «endless running» games, which are especially popular on smartphones and tablets. The fact that Saltsman invented a new genre in such a short time was also one of the reasons for including *Canabalt* in the video game collection of the Museum of Modern Art in New York.
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Photo: courtesy of Adam Saltsman

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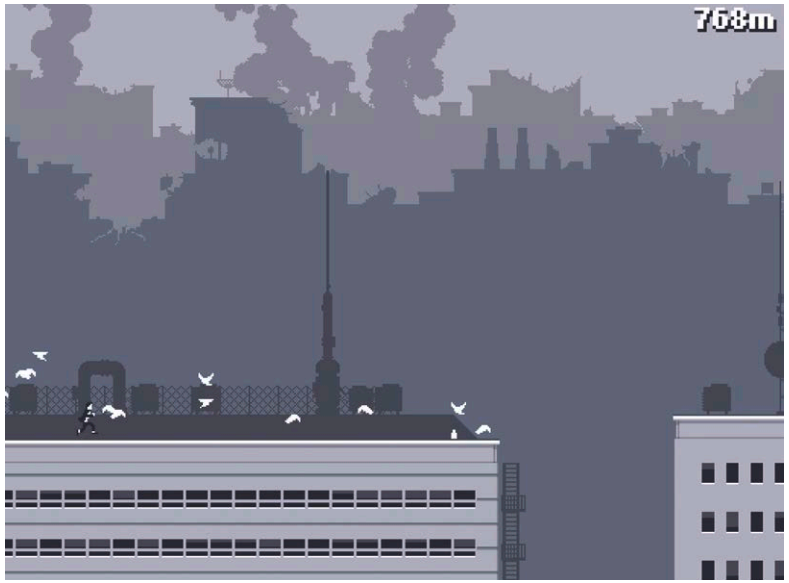


/22

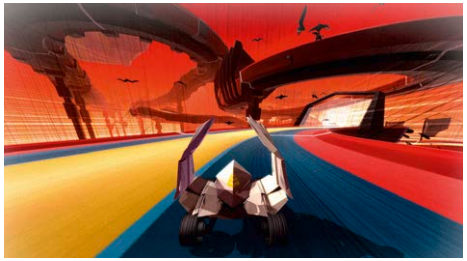
Mary Flanagan (*1969)
[domestic]
2003
—
video game modification
based on *Unreal Tournament* (2003),
PC
—
The video game modification *[domestic]* by the American artist Mary Flanagan is an example of how computer games are used as an artistic, personal way of expression. *[domestic]* is based on the first-person shooter Unreal Tournament, which the artist rearranged and redesigned into an environment.

In *[domestic]*, the artist comes to terms with a traumatic childhood memory: When Flanagan was seven years old, on her way home from church she noticed that her parents' house was on fire. Because her father was inside, she ran towards the burning house without giving a thought to the consequences. In place of Flanagan the players enter the house within the game engine, whose architecture represents a memory space. On the walls one can see pictures and text, which fit together as fragments of the autobiographical story. The goal of the game is to put out the fire and save the house.
—
Photo: courtesy of Mary Flanagan

/23

Mario von Rickenbach (*1987),
Michael Burgdorfer (*1987)
Krautscape
2013
—
video game,
version for Mac
—
Krautscape is a racing game for two players, who battle it out over the Internet. The race track, on which the driving and flying vehicles move, is not defined. The leading vehicle «builds» the track during the game, which also gives the game a tactical touch.

Game design, visual design, development: Mario von Rickenbach; game design, development: Michael Burgdorfer; sound design, music: Phil McCammon.
—
Photo: courtesy of Mario von Rickenbach, Michael Burgdorfer



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Ed Key, David Kanaga
Proteus
2009—2012
—
video game,
version for Mac
—
In *Proteus*, the players step onto an island full of magic. The game is about freely exploring the island, and enjoying its behaviour as an aesthetic experience. The landscapes in *Proteus* are randomly generated; also the music and the soundtrack adjust to the actions of the players in the game's world. The island in *Proteus* is a mysterious place. The symbolic story metaphorically follows life's natural cycle.

In 2012, the game received the Most Amazing Game Award of the Indie Games Festival A MAZE. in Berlin.
—
Photo: courtesy of Ed Key and David Kanaga

/25

Playdead Studios
Limbo
2010
—
video game,
PlayStation 3
—
In the award-winning independent game *Limbo*, the players take control of a nameless boy, who is searching for his sister. The platform game is set in a dark, spooky scenario. It seems like looking through fog at an alien, nightmarish twilight zone. In some Christian beliefs, «limbo» is the supposed abode of the innocent souls of unbaptized infants, and of the just who died before Christ's coming; more generally, it is an uncertain period of awaiting a decision or resolution, or an intermediate state or condition.

The boy finds himself confronted by various dangers and obstacles. For instance, if he walks into a trap, he dies in a gruesome and spectacular way.

Recommended age: 16 years and older.
—
Photo: courtesy of Playdead Studios

/24

/26

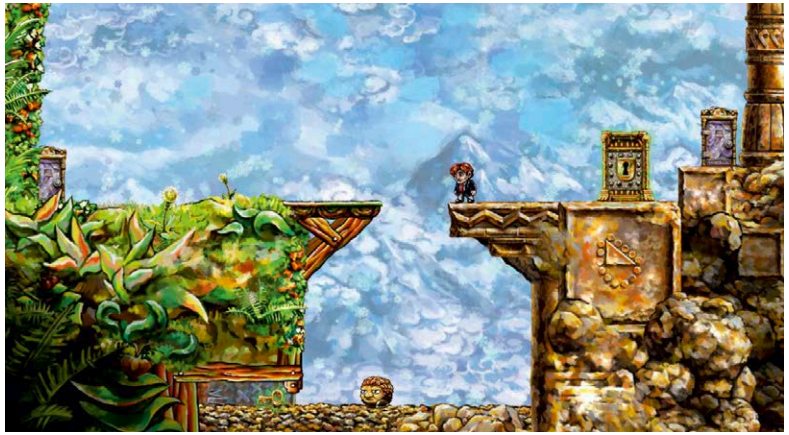
Thechineseroom
Dear Esther
2012
—
video game,
PC
—
Dear Esther is a video game, which in visuals reminiscent of a first-person-shooter tells an atmospheric story in an experimental way.

The players find themselves on an abandoned island in the first-person perspective. The game is impressive in its intelligent level design, and ambitious depictions of landscapes and nature. While the players explore the lonely place, they listen to an off storyteller, who reads out fragments of letters. The letters are addressed to a woman called Esther. There are many hints that Esther is no longer alive, and the nameless protagonist is on a journey through his memories.
—
Photo: courtesy of thechineseroom

/27

Jonathan Blow (*1971)
Braid
2008
—
video game,
PC, Xbox
—
At first sight, Jonathan Blow's independent game *Braid* is a platform game, based on classic games such as Super Mario Bros. It plays with the motif of the kidnapped princess, which in numerous computer games is the linchpin of the rudimentary action. On a meta-level, however, in the narration of the game serious subjects such as regret, forgiveness, and the desire to correct mistakes, are addressed. On his heroic journey the protagonist Tim can influence time: With the push of a button, the game's action is reversed. This game mechanic generates thrilling riddles, which are integrated into the dexterity game.
—
Photo: courtesy of Jonathan Blow

/26



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Jason Rohrer (*1977)
Passage
2005

—

video game,
PC

—

Passage is a small game with a large subject. It can be described as an interactive *memento mori* that confronts the player with very existential questions. *Passage* has an exact length of five minutes. The player steers his pixel alter ego through the game's world from left to right. He soon meets a woman, and is confronted with the first major decision: should he fall in love, or continue on his path? Together with his partner, he can score more points, although at the price of no longer being so mobile – he has to take his partner into consideration. On his way towards the right, and over time, the characters age visibly – they become grey and bent. After exactly five minutes, the *vanitas* game ends.

Rohrer experiments with the core element of computer games, namely, interaction, to make statements that are remote from what characterizes the computer gaming industry today: feelings and thoughts versus spectacle and illusion.

—

Photo: courtesy of Jason Rohrer

/29

Students at the Karlsruhe University of Arts and Design
Produced@GameLab

—

ZKM_Gameplay presents projects, works, and works of art, which were created at the GameLab of the Karlsruhe University of Arts and Design (HfG Karlsruhe).

The GameLab of the Institute for Post-digital Narrativity of the HfG Karlsruhe is a brand and a production site for media art. The students study games, the computer game as a medium and contemporary computer game culture.

The profile of the GameLab is characterized by artistic production and research, including on Game art, retro games, serious games, indie games, machinima, and so on. The GameLab presents game-like artworks and interactive experiments. The focus is an expanded concept of the game, which investigates the boundaries of what constitutes the «magic circle» of a game environment.

—

Photo: © W. Fox

/28

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Gold Extra
Frontiers
2006—2012
—
video game modification
based on *Half-Life 2* (2004),
PC
—
Frontiers has a serious political background: The subject of the first-person shooter is the refugee situation at Europe's borders.

The game shows the focal points of a refugee route, which leads from sub-Saharan Africa to Europe: The players experience four different border situations and a nightmarish room with documentary materials, which the artists have assembled during their on-site researches. The players can choose from various perspectives: They can choose between the role of a refugee or that of a border guard.

For *Frontiers*, the Austrian artist group Gold Extra modified an existing game software, namely, *Half-Life 2*, and in this way reinterprets common game strategies of first-person shooters. Frontiers is a so-called serious game – which it is – that takes up a clearly educational stance.
—
Photo: courtesy of Gold Extra

/31

Jens M. Stober (*1986)
1378 (km)
2010
—
video game modification
based on *Half-Life 2* (2004),
PC
—
In the serious game *1378 (km)*, the player is transported to different sections of the border between East and West Germany. The year is 1976. Players can assume the role of either an East German border guard or an East German refugee. In detailed reproduced scenarios of sections of the inner German border, the situation there can be experienced in the form of a first-person shooter.

It is only possible to win the game if one does not shoot. If one shoots a refugee in the role of a border guard, the players find themselves in a court room. In a trial they are held accountable for their actions. *1378 (km)* was created as a student art project with an educational character at Karlsruhe University of Arts and Design (HfG) in the GameLab.

It was planned to release *1378 (km)* on German Unity Day 2010. The art project caused a scandal, which was particularly orchestrated by the negative reviews of BILD newspaper, which described the game as «disgusting.» Some of the relatives of victims killed at the inner German border felt offended, which led to a complaint being file charged against the author Jens M. Stober for «incitement of popular hatred». The charges against the student were dropped, and the German press council condemned the reviews published by BILD newspaper.
—
Photo: courtesy of Jens M. Stober

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Amanita Design
Machinarium
2009

—

video game,
version for iPad

—

In Machinarium, the game designer Jakub Dvorský (*1978) brings a fantastic world to life. The point-and-click adventure tells the story of the robot Josef, who finds himself on a scrapheap in bits. *Machinarium* is characterized by intuitive gameplay, loving design, and individual aesthetics. The visual style of Amanita Design is clearly in the tradition of the Czech animation film.

—

Photo: courtesy of Amanita Design

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Amanita Design
Botanicula
2012

—

video game,
Mac

—

In *Botanicula*, Amanita Design focuses on the microcosm of a tree. In the point-and-click adventure, the players take control of various inhabitants of this biotope, for example, a branch or a female mushroom called Mrs. Mushroom. The players have to utilize the special skills of the tree's inhabitants to defend their habitat against parasites. The inspiration for the audio-visual style of *Botanicula* is the traditions of Czech animation films.

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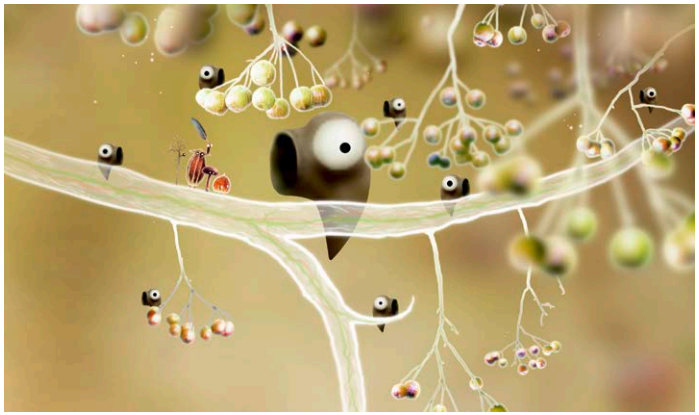
Photo: courtesy of Amanita Design



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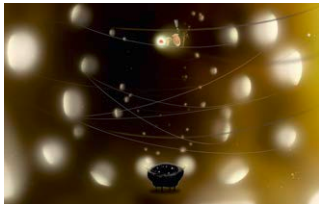

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And-or
Laichenberg
2010
—
video game,
PC, Mac
—
The first-person shooter *Laichenberg* is to be understood as a critical commentary on violence in computer games. The artist group and-or from Switzerland presents here a first-person shooter with an unconventional game mechanic. The Swiss art project criticizes the brutality of many video games by taking the violence of the action to extremes: in many first-person shooters it is common that after a character has been killed, they vanish as if by magic from the game, and then reappear unscathed somewhere else on the playing field. In *Laichenberg* this does not happen.

Therefore, the corpses gradually begin to clog up the playing field. The consequence of this is that the tunnels are blocked, which results in the game suffering cardiac arrest. In an animation at the end, one sees a mountain of piled-up shot-down figures like on a rubbish tip. The drastic brutality of this image makes it very clear how violent the game action is by presenting the player with the symbolic consequences of his/her actions. In this way the game also reflects the relationship between violence in media and real violence.

Recommended age: 16 and over
—
Photo: courtesy of And-or

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Paidia Institute
Paidia Laboratory : feedback #2 und #6
2011
—
modified software and hardware
—
The artist collective Paidia Institute from Cologne, Germany, engages with the question of how interactivity and control work in video games. While playing a computer game, the users are bound to certain rule sets: for example, they act via the pushing buttons or by moving the mouse, and as a result, something happens in the game world. This in turn triggers another reaction of the players. In the sense of cybernetics – the study of control – one can view the computer as the acting entity within a rule set.

In their sculptural series Paidia Laboratory: *feedback*, the artists bring the seemingly independent existence of the devices to the fore, and short circuit it. Paidia Laboratory: *feedback #2* is a self-playing karaoke game. The kinetic sculpture Paidia Laboratory: *feedback #6* consists of two PlayStation 2 consoles, which open their disk drives in turn and then close them again. Here, the work makes reference to the «ultimate machine» of the father of information theory Claude Shannon: a useless machine, whose only function is to turn itself off.

Paidia Institute: Jonas Hansen, Thomas Hawranke, Karin Lingnau, and Lasse Scherffig.
—
Photo: courtesy of Paidia Institute

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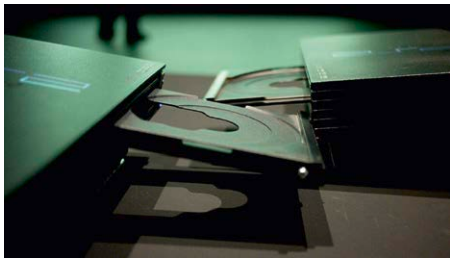

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Polytron
FEZ
2012
—
video game,
Xbox 360
—
FEZ is a platform game with puzzle elements. The hero Gomez lives in a flat, two-dimensional world, until a magical fez hat allows him to perceive and enter the third dimension. The players can alter the perspective of the game world, and thus solve riddles, for example, by passages becoming visible or new routes opening. The game was awarded the Seamus McNally Grand Prize at the Independent Games Festival 2012.

The long development of the game – since 2007 – is documented in the award-winning film *Indie Game: The Movie.*
—
Photo: courtesy of Polytron

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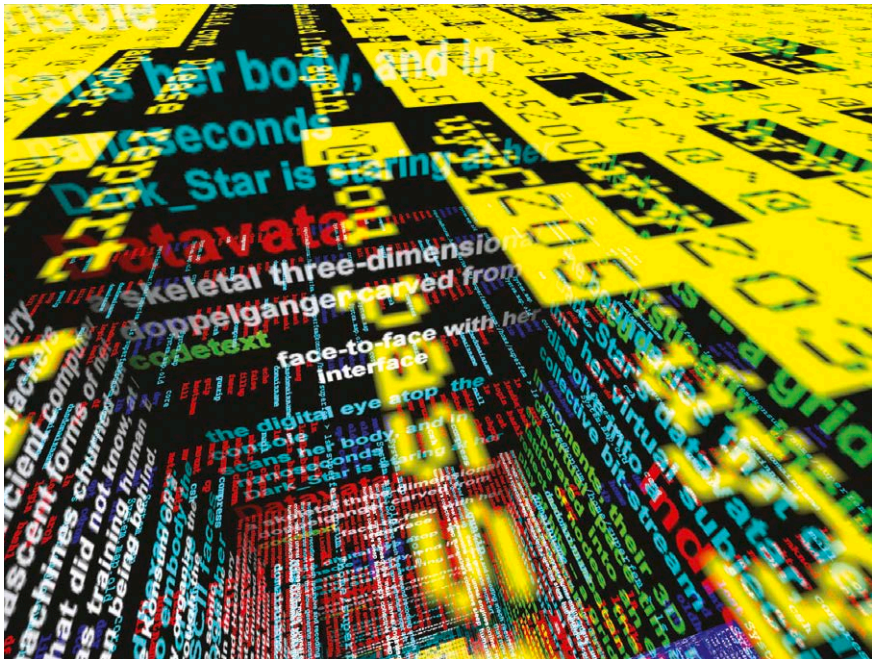
Margarete Jahrmann (*1967),
Max Moswitzer (*1968)
LinX3D
1999
—
video game,
arcade video game machine cabinet,
PC
—
LinX3D features a video game machine cabinet as is familiar from arcades; the players are recorded by a camera, and are then integrated as video ASCII art into the game environment. The visitor can explore various levels of the code environment alone or together with other players' avatars. Data protocols and surveillance footage from the real world are the basic components of this seemingly harmless video game.

LinX3D was one of the first works of the Game art genre, which emerged in the 1990s, and the ZKM presented it in 1999 in the exhibition net.condition.
—
Photo: courtesy of Margarete Jahrmann, Max Moswitzer



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Olaf Val (*1968)
Verstärker
2001
—
interactive sculpture,
PC
—
The focus of *Verstärker* is the interplay of light and the interaction designed by the artist. The theme is the everyday treatment of electric light. Around the turn of the twentieth century, in 1900, the light bulb stood for the optimistic belief in progress through technology. The light bulb, though, also simply stands for light, the mind, and ideas. In *Verstärker*, the light bulb is used as a feedback medium. The notion of a display is reduced to a simple light bulb. Because of its haptic and sculptural qualities, the PlayStation controller is actually the main attraction of the work. Playing with *Verstärker* makes the user aware that computer gaming is play with glowing dots. At the same time, the work implies a criticism of video games as games with light that lack substance.
—
Photo: courtesy of Olaf Val

/39

Frank den Oudsten (*1949),
Friedemann Schindler (*1954)
Licence To Kill
1997
—
video sculpture
—
The theme of the video sculpture *Licence To Kill* is violence in the media. The huge spotlight of an anti-aircraft gun is the frame of video monitors on which the viewers can watch brutal scenes. As a war machine, the spotlight not only provides light, but conveys the impression that it is itself a big cannon. To see the horrific images viewers have to confront the martial device metaphorically and look deep into the barrel of the cannon.

Frank den Oudsten and Friedmann Schindler created *Licence To Kill* in 1997 for the ZKM's video game section which was originally called *Welt der Spiele* [World of Games].
—
Photo: © ZKM | Center for Art and Media Karlsruhe

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//////////fur////
art entertainment interfaces
PainStation
2001

—

interactive sculpture

—

At first glance, the interactive sculpture PainStation by the artist group *//////////fur////* appears to be a pong game, which since 1972 belongs to the great classics of computer gaming, and represents the beginnings of the medium as a harmless Tele-game. The PainStation, however, has a special feature: When the players lose a ball in the simple game, they are «punished»: They get an electric shock on their hand, or a whiplash.

PainStation is one of the most famous works of the Game art genre. It addresses the sometimes fragile boundaries between reality and virtuality, and seriousness and play. It underlines the fact that games have an effect on their players.The PainStation exaggerates this effect by inflicting real pain on the players. With this, it exposes the idea that a virtual sphere exists in a vacuum, detached from the reality of humans, as a myth. The martial undertone of the artwork poses questions about the brutal nature of some computer games, which has accompanied the medium of the video game in general for a long time.

In 2003 the artwork was awarded the media art prize of the ZKM, and was then presented in numerous international exhibitions, for example, in the MoMA and in the computer game museum in Berlin.

Use At Your Own Risk.

—

Photo: courtesy of fur

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Frank den Oudsten (*1949),
Friedemann Schindler (*1954)
Ahnengalerie
[ancestral portrait gallery]
1996

—

The *Ahnengalerie* was designed by Frank den Oudsten for the opening of the *Welt der Spiele* [World of Games] in 1997. Six historic gaming computers and consoles were presented: a Magnavox Odyssey (1972), an Atari VCS (1977/80), a Commodore 64 (1982), an Amiga (as of 1987), a Gameboy (1989), and a Super Nintendo Entertainment System (1990).

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Photo: courtesy of ZKM | Center for Art and Media

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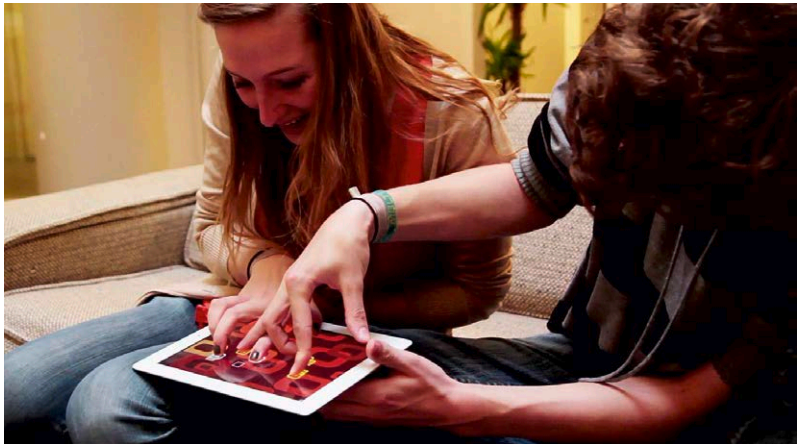

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Game Oven
Fingle
2011
—
video game,
iPad
—
Fingle is a game for two players, who use one iPad together as a game board.

Symbols appear on the iPad, which have to be moved to their target position by touch. Body contact is intended and indeed cannot be avoided; the hands twist and intertwine. The game is an example for the tendency of contemporary computer games to extend their action into the real space of the gamers. Fingle extends beyond the screen, and stimulates especially the social interaction between the players.
—
Photo: courtesy of Game Oven

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Susigames
EdgeBomber
2003—2012
—
video game,
PC
—
EdgeBomber is an interactive installation and a mixed media video game. The players are integrated into the process of generating a game world by creating a games scene for a classic platform video game with sticky tape and scissors. A camera system recorded the game scene and a computer processes it into a level. The extended game scene is projected onto the scenery of the game, so that the real game surface melts together with the depiction to a combination. The real picture on the wall, designed by the players, and the virtual world of the game are brought together and projected back onto the wall. Real game scene and synthetic game scene are merged into one.

With the hero Ozkar, the players now have to defend themselves against attacks by the devilish sausage and Hubert the chair in order to rescue the beautiful ice princess Susi. Through the possibility of designing the playing scene themselves, players can influence the action in very different ways. EdgeBomber was developed during a guest artist scholarship at the ZKM.

Concept and development: susigames (Ole Ciliox, Richard Gutleber, Thomas Hawranke, Nikolaus Vahrenkamp, Kai Welke); code: Kai Welke, Niko Vahrenkamp, Ole Ciliox; graphics: Richard Gutleber; animation: Richard Gutleber, Thomas Hawranke; production: susigames supported by ZKM | Institute for Visual Media.
—
Photo: courtesy Susigames

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Die Gute Fabrik,
Copenhagen Game Collective
B.U.T.T.O.N.
2010

—

video game,
PC

—

B.U.T.T.O.N. is an acronym for «Brutally Unfair Tactics Totally OK Now.» This multiplayer game relies almost entirely upon the action that goes on in front of the monitor or the projection screen and not on it. A typical round goes like this: Four players position themselves at a fair distance from the controllers, and follow the instructions given out by the game. For example, the players have to do push-ups, move in slow motion, or like ninjas. During the game, the rules change constantly. Sometimes a person loses who has pushed a button on their controller. Afterwards the rule is given out: Whoever manages to depress a button on a controller for seven seconds, wins.

—

Photo: courtesy of Die Gute Fabrik

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Fabian Schaub, Franziska Remmele &
Thomas Krüger GbR
Globosome FREE
2012

—

video game,
iPad

—

G*lobosome FREE* is about balance, responsibility, and dexterity. With an intuitively controllable gyro controller, the players take control of a plant-eating ball, which has been separated from its swarm, and now it tries to return to it or establish its own swarm. If the ball eats enough, it gains enough life energy to reproduce by division. However, if the ball succumbs to gluttony, resources become scarce, and the life of the growing swarm is endangered.

The game is a project of the major field of study animation and interactive media at the Institute for Animation of the Filmakademie Baden-Wuerttemberg. In 2012, *Globosome FREE* won the AppArtAward of the ZKM in the category Game Art, winning prize money of 10,000 Euros.

Producer: Anna-Katharina Brinkschulte, Franziska Remmele; game director: Sascha Geddert; game design: Fabian Schaub; programming: Thomas Krüger; graphics: Tonio Freitag; GUI design: Max Jung; sound design: Namralata Strack; concept design: Jin-Ho Jeon; music: Maryna Aksenov; support game design: Oliver Witzki.

—

Photo: © Fabian Schaub, Franziska Remmele & Thomas Krüger GbR created at the Institute of Animation of the Filmakademie Baden-Wuerttemberg

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Thatgamecompany
flOw
2007
—
video game,
PlayStation 3
—
flOw was based on ideas in the game designer Jenova Chen's MA thesis at the University of Southern California. The project, which began as a student work, was then remade for the game console PlayStation 3 and technologically improved.

The players take control of a simple organism, and navigate it through an underwater landscape of bizarre beauty. The goal is to assimilate other organisms, to progress and become a more complex creature, and to remain in the game's flow.

The game automatically adjusts the difficulty according to the player's skills, so that flowing action in the game is always guaranteed.
—
Photo: © Sony Computer Entertainment

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Amanita Design
Samorost
2004
—
video game,
Mac
—
With *Samorost*, the game designer Jakub Dvorský (*1978) proved his talent for interaction design for the first time. On the visual level, Dvorský mixes organic structures like wood and moss with his own comic-like inventions. Here influences from the rich tradition of Czech animation film meet the genre of point-and-click adventures.
—
Photo: courtesy of Amanita Design

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Olaf Val: *Digigripper*
View from rear, 2007, courtesy of Olaf Val

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