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Software Art in Computer Games

The strategies of critical art have been subject to a series of transformations since the moment of its emergence at the turn of the sixties and the seventies. Originally, the artists of minimalism and conceptualism analysed in their productions various sorts of "influence relations" between art institutions (commercial galleries, museums, criticism, curatorial practice, etc.) and the "value" of the artist him/herself, their works or strategies. Then the artists representing a critical faction of postmodernism of the eighties, aware of the unavoidable involvement of themselves and their own productions in the broader social, economic and political reality, concentrated actively on combining art with politics. This "politicisation of aesthetics" served mainly to reveal different kinds of interdependencies between subjectivity (identity) and language as well as the body.

At present, in an increasingly technologically media-oriented reality, current artistic strategies are becoming more concentrated on the criticism of modern "technical culture", including strategies analysing various aspects of our involvement in computer programming language and making them a subject of broader public reflection. As Edwin Bendyk wrote:

software constitutes an environment equally universal and common as air and water. And even more, it is up to programs controlling motor ignition if we inhale fresh air and water in our taps would not flow out if not for special software controlling its distribution. [...] If so much depends upon software, the following questions become of considerable importance: who creates software? Who owns it? Who controls its distribution?¹

Such questions as well as many other relating to software are posed by artists of Software Art to themselves and to consumers (users) of their works. Through their own creations they attempt to create bases for broader public reflection on

the modern technological development. They are convinced that technology should result from a social dialogue and debate inspired by the common good of the (technologically media-oriented) public space in which the priority should lie in its communicative openness not serving particular commercial interests.

The main objective of the Software Art artists is to translate the language of information technology into the language of art to make the first more approachable to the broader public not oriented to IT. Software Art promotes among its addressees an attitude of engineer-amateur trying to learn the language of "technosphere" and to make it a widely available tool of expression and reflection (not limited only to a group of IT specialists). Such an attitude will enable people to take an active part in the debate currently being conducted about software, the results of which will directly affect their lives. Nevertheless, by initiating actions at the interface of artistic activity and programming, Software Art artists endeavour to make recipients aware of the growing cultural and social function of programming production that formalises their rights, habits, restrictions, etc. in programming languages. Taking into consideration the high probability of the scenario of consistently progressing "intelligence enhancement" relating to our direct living environment, programming gradually becomes another profession of social trust requiring a special kind of vocation and a sense of service to the community. The Software Art productions remind us of the necessity for the coexistence of programming skills with high ethical standards and a sense of responsibility for the shape of social and cultural life.

It is worth mentioning that Software Art originated from the criticism of the technological aspects in modern consumer culture that emerged in the streams of structural cinema and analytical video at the turn of the 60s and the 70s. The representatives of these streams (similarly to the Software Art artists) assumed the postulate of Walter Benjamin concerning the necessity for intervention by revolutionary artists not only

¹ E. Bendyk, *Antymatrix*, Warszawa 2004, p. 55.

in "dominating mechanisms of meaning production" (representatives of the said streams often desisted from activity in the sphere of semiotics) but in the very media, languages and technical devices that made the production possible. Benjamin exhorted us to adopt and transform them².

The representatives of analytical art taking advantage of video and film concentrated on the attempt to change cinema and television, i.e. the main technologies of the performance society, and analysed the influence of "the technological apparatus" of these media on the shape of representations offered by them. In their works, they demonstrated the need for making the analysed media more participatory, interactive and communicative, thus preparing society to adopt more "personal" computer technologies. Computers present in each house, being powerful tools of symbolic production supporting the self-representation and self-organisation of individuals, and making it possible to create and develop "social capital", seemed to fulfil (or even crown) the postulates of Benjamin and the avant-garde of the beginning of the 20th century. However, the most current and the important field of the battle over the "production apparatus" is now the sphere of computer programming. The freedom to create software is equally important as freedom of speech.

It should be mentioned that the emergence of Software Art took advantage of "impulses" originating from the Free Software/Open Source movement. The artists and theorists of Software Art have found that the critical potential of the Free Software programs, their power of refreshing attitudes towards social, economic and artistic reality as well as towards issues of intellectual exchange and property might have a revolutionary influence on other spheres of life. Guided by the artist-engineer notion already known to Russian constructivists as well as the paternalistic urge to channel the energy of computer software "writers" (being often ordinary barbarians in the field of culture, civilised in a questionable manner), the Software Art artists have been symbiotically connected with the world of software authors. Special interdisciplinary portals have been created that are assumed to form platforms for the integration of artistic and programming environments. Taking into consideration the fact that software production may be perceived as cultural production (apart from its pure functional role) the portals form the basis for text exchange (both ideological and programming ones) between these two environments. The most important portals include: run.me.org,

² In this aspect the views of the German theorist differ considerably from other modernist conceptions referring to the social change based on a radical rejection of the existing social and cultural *status quo* and the construction of everything from "the absolute beginning".

generativeart.net, gratin.org or sweetcode.org. The activity of several new festivals devoted exclusively to Software Art have been initiated recently (with the pioneer "read_me 1.2") whereas the older and the renowned ones such as the Berlin Transmediale have founded a special award category for works in this new art field. Software Art artists have already staged several famous and successful exhibitions (in traditional exhibition space) such as: "I love you – computer_viruses_hacker_culture" (Digitalcraft, Frankfurt, 2002), "instal.exe" by the Jodi.org group (Plugin, Basel and Eyebeam, New York 2003) or "Biennale.py" (the Slovenian Pavilion, Biennale di Venezia, 2001). The modified computer games – Game Patching³ – constitute the most paradigmatic productions of Software Art.

Game Patching

Software games have been a new language of artistic expression for some time. This has been proven by the still growing number of artists⁴ and undertakings relating to games and arranged by institutions of art. The most important exhibitions include: *Tokyogames* (Palais de Tokyo, Paris, 2003)⁵, *Web Wizards* (Design Museum, London 2003)⁶, *Game On* (Barbican Gallery, London 2003)⁷.

Artistic productions taking advantage of software games range from ephemeral Internet "instant games" to extended installations presented in (real) prestigious exhibition places and containing games in their structures. These two poles determine also the scope of "existence" for the Game Patching productions, individual variations of which include both simple network applications and complex installations that play "games" with the real gallery space.

The specific pre-figuration of Game Patching consists in hacking and cracking interventions into intro-screens opening various games available in the eighties on the Commodore 64 computers. Numerous examples of such works were collected by artists of the Radical Software Art and the Beige groups (a leader of the latter formation is Cory Arcangel) on a DVD released in 2003 and titled *Low Level All-Stars*. The artists known in the environment of games for many

³ Other terms used instead of the "patch" term include: skin, wad, mod, shape, cf.: www.opensorcery.net/mutation (23.08.2000.).

⁴ E.g. Tobias Bernstrup, Pierre Huyghe, Palle Torson. cf.: L. Dreyfus, *Loading... Video Games, a new language for artists*, Flash Art 2003, No. 3-4, RAM 1 (reApproaching new media 1), catalogue, Stockholm, 2003.

⁵ Curator Laurence Dreyfus, www.palaisdetokyo.com (25.09.2003).

⁶ www.designmuseum.org (26.09.2003).

⁷ www.barbican.org.uk (26.09.2003).

subversive works completed the curator project to visualise and protect the artistic tradition from which their creative activity originates. They commented on the modified intro-screens: "they are beautiful for their obsolete formal properties, as well as their testament to a lost subculture"⁸. Moreover, according to Cory Arcangel the collected productions prove that

as long as video games have been sold they've been cracked; cracking into software, removing a game's copyright protection in order to distribute illegally its copies has been a common phenomenon from the beginning of commercial distribution of the software with protected copyright. Crackers distributed then the "stolen" software for free or against a charge. Together with the cracked game they often left behind their own (or modified) intro screens as evidence of their trade⁹.

Originating from this tradition, in the beginning Game Patching developed as a kind of hackers art associated with the ideology of the Free Software / Open Source movement. The activity constituting the phenomenon in its original stage of development, i.e. breaking a game's source code in order to modify and adjust it to the hacker's own needs expressed a broader tendency among hackers to oppose proprietary software. At the beginning of the nineties Game Patching started to become popular outside a narrow circle of hackers. Hackers started to place modified game versions on the Internet after cracking them. Thus they generated a specific demand for a similar activity among game players and Internet users frustrated with the growing uniformity and standardisation of solutions used in games. After some time, demand forced companies producing games to supplement their products with special editors enabling users to create their own versions. The editors served to modify characters, events, music etc. according to the individual preferences and imagination of players but also according to their sex, origin, race, sexual orientation etc.

A turning point was the year 1994 when a source code was made available (by the producer) to the Doom commercial game. It made the Internet full of various overlays to this game. It was one of the biggest revolutions in the history of computer games. Some interpreted it as a return to (or rather victory of) hacker traditions of critical testing relating to the existing software. Others thought that equipping games with Game Patching possibilities had made it lose a lot of its original critical aspect and treated the revolution as a cunning move on the part of the game-producing companies. Owing to Game

Patching, they were supposed to gain a very effective and free field of research and development related to testing new solutions that subsequently were usually incorporated into an official product. For example, Will Wright, an author of a very popular game, i.e. SimCity claimed that its successive releases had been created in 95% by fans who had produced numerous patches and modifications to it. At some point in time Wright concentrated only on coordinating this process by selecting the best solutions and deciding about their incorporation into the next game version. According to Wright, individual patches (created by fans) were continuously affecting the shape of the game, making the process of producing it similar to that of the Linux software production during which "somebody had been always coming in and out with a new product and new ideas. This continuous movement, like the natural ecosystem, contributed to the crystallisation of the product perfection". This process shows how the criticism of representation in the case of Game Patching (and in the case of new digital media, in general) evolves into a possibility of continuous negotiations concerning its determinants. In the context of Game Patching a given commercial game ceases to be something strictly defined and becomes a kind of proposal for users, open adjustment to their preferences, wishes, imagination and values considered to be important.

Among critical discourses Game Patching has been mostly favoured by cyberfeminists¹⁰. Starting from the nineties they have tried to wage a specific fight using patches for the presence of "subject items" enabling female players to find their identification in games of various types, e.g. war ones (prepared mainly for male users). The first female "skins" (avatars) resembled monstrous Amazons with strange combinations of female and male qualities. Analysing cyberfeminist patches Ewa Witkowska wrote:

The *Fighter Chicken* patches for *Doom* and *Gumby Doll* for *Marathon Infinity* replaced macho fighters with androgynous characters aiming the blade at the macho character type present in numerous computer games. Then *Female Cyborg Patch* (by Ken Hodgman) and *Tina-bob* for *Marathon* were among the first patches introducing the female-heroine instead of the waiting princess being a reward for the merits of the warrior. They were a specific pre-figuration of Lara Croft from *Tomb Raider*. The patches replacing male game characters with wo-

⁸ C. Arcangel, *Low Level All-Stars*, www.eai.org (29.09.2003).

⁹ C. Arcangel, op.cit.

¹⁰ I define cyberfeminism as a feminist attitude "executed" in the environment of digital media of the most modern computer and information technologies. The issue of cyberfeminism is analysed in details by Ewa Witkowska in a text *Cyberfeminizm – wirus w starym systemie*, [in:] *W środowisku cyberkultury*, Zeszyty Artystyczne 2003, No. 12, Ł. Ronduda (ed.) (Poznań).

men include also: *FemDOOM* (by Lynn Forest), *Amazon Fighters vs. Pistol-Packin Robertas*" (J. Cofey) to *Marathon Infinity*, *Female Bobs* (Loren Perich) for *Marathon Infinity*, *The Female Skin Pac* (by multiple authors) for *Quake*, *PMS Skins* (Georgina) for *Quake 2*, *Otakon Doom* (Mark Sachs), *Betty Bobs Patch* for *Marathon*, *Sailor Moon Doom Wad* (SOS Doom Team)¹¹. Next, the *Bio Tek Kitchen* patch for *Marathon Infinity* by Josephine Starrs (one of the VNS Matrix founders) and Leon Cmielowski replaced all types of weapon available in the game with food products and kitchen utensils. A player attacked by mutant vegetables defends herself by throwing tomatoes and plates at her¹².

Not long after the first cyberfeminist modifications all the restrictions relating to the field of gender in games were abolished. Since then we can observe a real festival of various gender mixes and manifestations. An interesting example of such operations on gender avatars is reaching for characters from Japanese games based on the aesthetics of manga and anime, offering miscellaneous asexual creatures and animals. For example, Anne Marie Schneider¹³, an artist and a curator who runs the *opencore.net* portal devoted to the relations between games and gender, stated in reference to this issue with the example of shooters:

I assume a critical attitude to this domain reified into an exclusively male battlefield [...]. Personally I would prefer computer games to develop in a direction more conforming to imagination and not to military fantasies [...]. I like environments which give more space for inventing interesting characters and worlds. Japanese games for children and adults are engaged in this undertaking filled with weird animals, pokemons, cat-robots, transformers, monsters, demon fairies of all possible genders. I identify with these characters more than with antiterrorist troops¹⁴.

A similar opinion is expressed by Sherry Turkle, who claims that the game modification (or any similar activity in virtual environments), serving various gender experiments in space not subject to the repressive social and cultural standard concerning gender and sexuality, may have a very advantageous impact (therapeutic and social) on "real

life"¹⁵. Moreover, the cyberfeminist patches promote "social" solutions in games that are based on dialogue and communication rather than on attempts at forcible settlements. A frequent postulate involves the wish that the game contain more situations in which the woman player would feel comfortably and friendly. Using the words of a woman hacker: "I'd like to see more romance"¹⁶.

The year 1996 brought the *Tomb Raider* game with Lara Croft – the first popular female game heroine (the appearance of Lara crowned the aforementioned stage of replacing the male game character with the female one). According to numerous cyberfeminists, in the case of *Tomb Raider* we can observe the same mechanism of fetishising, fragmenting and objectifying the female body in the way similar to that described by Laura Mulvey in reference to classic Hollywood cinema in her essay "Visual Pleasure in Narrative Cinema" (1970)¹⁷. Referring to these issues Ewa Witkowska wrote:

Lara soon became an object of male fascination. The game structure in which Lara is visible from behind brings to mind voyeuristic film techniques. [...]. The pleasure of watching Lara not aware of being watched at is an important game element. [...] Lara is never aware of the look that follows her¹⁸.

A specific example of the above arguments was a patch for *Tomb Raider* called *Nude Raider* offering the player a possibility of "operating" a nude option of Lara Croft. In reference to *Nude Raider* Robert Nideffer, an artist, created his own modification of the abovementioned "pornographic" patch. The artist censored Lara's nudity by introducing black stripes (similar to those used for covering faces of criminals in TV reports) and adorned Lara with a moustache and a thin goatee beard (similar to those drawn by Duchamp upon Mona Lisa), exposing to some extent her gender hybridity. In effect Nideffer created in its intervention a transsexual variant of Lara. He revealed that on one side she could be seen as a "drag king" – a woman disguised as a man, in military clothes, with a weapon. And the other way round, Lara can be perceived as a drag queen with extremely exaggerated and overstressed

¹⁵ A. M. Schneider refers to the views of Turkle expressed in *Life on the screen: Identity in the Age of the Internet*.

¹⁶ <http://www.selectparks.net/modules.php?home=news&file=article&sid=110> (11.01.2004). There are more and more portals dedicated to the relations between feminism and games, e.g. <http://www.grrlgamer.com>

¹⁷ <http://www.opencore.net/lara2.html> (23.07.2002), cf. also: E. Witkowska, op.cit.

¹⁸ E. Witkowska, op.cit. p. 48.

¹⁹ H. W. Kennedy wrote: "Through this transgendering process, the Lara/player interface is open to two possible queer readings. One is that she is a female body in male drag – a performance of masculinity that undermines

¹¹ The patches are described in detail on the website: <http://www.opencore.net/mutation/> (it is also possible to download them there), (11.08.2002).

¹² E. Witkowska, op.cit., p. 47.

¹³ Anne Marie Schneider was a curator of many on-line exhibitions connected with Japanese games <http://www.opencore.net/indexmenu.html> (28.11.2001).

¹⁴ <http://www.opencore.net/aboutvs.html> (11.07.2002).

femininity attributes (like unnaturally big breast)¹⁹. Helen W. Kennedy stated that most analysts had agreed that while playing *Tomb Raider* the male player had made a kind of gender transgression as the difference between him and the female heroine had been blurred. I think that the patch by Nideffer with the masculinised Lara attempts to visualise this process. As Helen W. Kennedy writes:

the fusion of player and game character as a kind of queer embodiment, the merger of the flesh of the (male) player with Lara's elaborated feminine body of pure information. This new queer identity potentially subverts stable distinctions between identification and desire and also by extension the secure and heavily defended polarities of masculine and feminine subjectivity²⁰.

The palimpsestic structure that emerged as a result of Nideffer's intervention, i.e. patching the patches is very frequent in the circle of players. A given game becomes then the ground for communication, dialogue, exchange of opinions, negotiations of standards and values, etc. Such practices contribute (especially in the context of network multi-user games) to establishing the "social capital" among players.

In the context of cyberfeminist patches pursuing gender issues it is worth mentioning a patch for "SimCopter Hack" (1996) by the RTMark group. Anne Marie Schneider called it a Deep Patch that differs from others because the artists intervened not so much in the structure of the existing game but already in its production process. One of the hactivists was employed as a programmer at the company creating games, Maxis, Inc (producer of e.g. *The Sims*). He worked for several weeks creating the 2nd and the 3rd dimensions in the

its reliance upon a real male body and highlights the instability of masculinity as an identity. Or conversely, Lara could be considered a female drag performer in that the bodily signifiers of femininity are grossly exaggerated to the extent where they threaten to collapse". Moreover, she draws attention to the fact that Lara has no romantic adventures in the game world which makes her sexual preferences not finally defined. Kennedy wrote: "the producers of Lara wanted to market her as a character potentially appealing to women; her arrival on the game scene dovetailed nicely with the 90's 'girlpower' zeitgeist [...]. In *Killing Monsters* Gerard Jones locates Lara amongst a number of feisty and highly sexualized female characters that came to prominence in the 90s — including *Buffy the Vampire Slayer* (2002). These characters have a strong 'bimodal' appeal in that they manage to engage a large following of both young men and women". Helen W. Kennedy makes another interesting observation that can be referred to in the context of Nideffer's patch, namely the fact that Lara is both the hero (active) and the heroine (to be looked at). Cf.: H. Kennedy, *Lara Croft: Feminist Icon or Cyberbimbo?*, *Game Studies* 2002, vol. 2 (December 2002); www.gamestudies.org/0202/Kennedy.

²⁰ H. W. Kennedy, op.cit.

SimCopter game consisting mainly in flying the helicopter, extinguishing fires, catching criminals, pacifying demonstrations, etc. It was a typical action game designed for young males "updating all the clichés relating to this type of games, such as muscular pilots flirting with attractive blondes"²¹. The RTMark member, as one of the "creators", slipped into it instead of female computer-game bimbos the images of men in swim trunks running and kissing one another. This operation on gender (typical of RTMark) avatars was discovered already after the release of the game. It was withdrawn from sale and the patch author, Jacques Servin was immediately fired (it should be mentioned that the patch author was gay and he wanted, in this way, to smuggle the representation of this minority into the game).

Game Patching is also increasingly often becoming a tool for political manifestation. In this respect it often adopts functions that were fulfilled earlier by e.g. protest songs, agitation posters or photomontages. After 11th September 2001 American players created numerous modifications for such games as *Quake*, *Unreal* and *The Sims* in which they placed avatars of e.g. Talibans and Osama Bin Laden as objects of destruction and annihilation. Even in such a peaceful game as *The Sims* it was possible to kill the Osama avatar by feeding it with poisoned chips. However, the aggression expressed in Game Patches against characters with a Near East appearance soon started to reflect the real violence and oppressions experienced by the Arab population in the United States after September 11th. The most popular of social and political patches include anti-corporation ones, e.g. in a network version of *The Sims* the players were able to meet in the space of a virtual city and stage protest demonstrations against the McDonald's restaurant network which pursuant to the product placement agreement with the game producers opened a network of its fast food restaurants in the game space.

A subject heavily criticised recently by the Game Patching productions is the proceeding merger of the industry manufacturing computer games with the "war" industry, a clear example of which is an official US Army "recruitment" game *America's Army*. The anti-war Game Patching productions expose the processes of "romanticising" and aestheticising war experiences present in the most of mainstream games. Moreover, the artists approach game technologies that are often based on technologies utilised earlier by the army critically. It will suffice to refer to the statement by Marek Hołyński that:

the modern computer graphics and ultra-fast computers are able to almost literally simulate the real battlefield. The trained

²¹ RAM 1, op.cit., p. 18.

soldier can not only see but also feel everything that happens during the battle – experiences vibrations and banks, can hear roar of engines. In the case of aircraft simulations the only missing experiences are the changes of G-force and air pressure. After such training it is practically possible to steer a real aircraft or a tank²².

Velvet-Strike, a patch for the *Counter-Strike* game by Marie Schneider (together with Joan Leandre and Brody Condon) was invented as a direct reply to the war with terrorism “designed” by President Bush. Instead of a weapon, the player was equipped with a spray (“weapon of public opinion”) to write in the game space (the multi-user one) anti-war slogans and graffiti (e.g. “we are hostages of the Military Fantasy”).

An interesting “deconstruction” of war games is offered by analytic productions of the Jodi.org group, e.g. *Untitled Game* or *SOD*. *Untitled Game* consists of 12 reinterpretations of the *Quake* game. The whole original game architecture is erased and its only original (not modified) components include the soundtrack and the interface (the fact that the interface has not been modified is made known to the player

through the soundtrack). In *SOD* the artists replaced the Graphic User Interface with monochromatic (white, black, grey) geometric elements, creating as a result a space completely confusing the user, and not giving the possibility of differentiating easily which elements represent e.g. walls and which stand for shooting opponents. Software codes of the *Quake* or the *Castle Wolfenstein* games “in the hands” of Jodi.org become a tool for creation and expression, still developing in dialogue with original game parameters. The artists examine specific ontological parameters of the game code, its failings and mistakes. Apart from the software issue they also raise questions strictly connected with it and referring to the nature of interactivity and representation of reality in games.

Recently we have noticed a growing interest in Game Patching productions in the world of arts. This is indicated by the great number of productions present at prestigious artistic events and at important exhibition places. The best known cases showing appreciation of Game Patching include the main award for the Q4U artwork (2000–2002) by Feng Mengbo at the last *Dokumenta XI* in Kassel (2002), the invitation of Cory Arcangel with his works *Super Mario Bros* to the Whitney Biennale (2003) and the nomination to the Turner Prize 2004 of *The House of Osama Bin Laden* exhibition by Ben Langlands and Nikki Bell.

²² M. Hołyński, [w:] E. Bendyk, *Zatruta studnia*, Warszawa 2002, s. 98.