Beginnings of Swiss Game Design. The Home Computer Scene of the 1980s.

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Abstract | This article is the beginning of further research into the history of Swiss Game Design, mostly uncharted and unknown to the public. It focuses on independent game design for home computers in the 1980s.

Switzerland had an interesting and innovative academic computing science community that developed important software (programming languages) and hardware in the 1970s and 1980s. There were also some games developed, but there was no commercially viable scene the likes of the United Kingdom where at the time games were professionally produced and published within a flourishing game and tech business world.

Outside of academia, young computer and game enthusiasts organized themselves locally in clubs and ‘groups’ and started cracking games. One of the groups called itself the Swiss Cracker Association. At the time the removal of copy protection mechanisms was not prohibited in Switzerland. The crackers embedded their names, greetings, and their own graphics into cracked games. This was their start into coding, porting and designing games. By cracking they gradually learned to code their own games. It followed a time in the 1980s in which Swiss game developers ported a lot of games from one computer system to the next. Independent game design in Switzerland was launched. Finally, they were able to make their own games and released around 30 original games. There was even a Swiss label, ‘Linel’ that published some of those games for an international market.

Keywords: Swiss Game Design, Home Computer, 1980s, Game Design Archive, Design History Research

1. Nerds, Freaks, and their communities

The history of Swiss game design is still largely uncharted and unwritten. There are different eras to be discovered that had their own habitats. But in almost all these eras, game designers or game developers (devs) had to establish their own communities and networks from scratch. Mainstream media and a skeptical social and political environment gave them a hard time. They were not taken seriously or plainly ignored in a world that was reluctant to learn how to use and live with the latest technology – especially in Switzerland.

One of the most important of these communities is the game dev/design scene of the home computer community in German-speaking Switzerland. This article tries to establish a first overview. The home computer scene existed in the years 1983 to 1996 and mostly worked with Atari ST and Amiga computers. Some of its lineage is known and can be shown but most parts remain largely uncharted up to today. This contribution is to be understood as a first approach to the unwritten history of Swiss game design. Within the framework of a bigger research project, further contributions will follow.

Figure 1: Rings of Medusa, Box, a strategy game, Amiga version by Christian A. Weber, Christian Haller and Jochen Hippel (music), for Amiga, published by Starbyte Software (1989). Photo: René Bauer.

In the mid 1980s the first generation of home computers like C64, Atari ST or Amiga reached the market. These low-cost computers enabled a first democratization of computer technology beyond the universities. The new home computers came with a lot of new technologies like graphical user interfaces, mouse control (originally introduced by the MacIntosh), a lot of colors, enhanced sound technology or small networks over midi.

The result of this development was a lot of new tools like text programs, paint programs or music programs (trackers) and finally tools for ‘easily’ coding computer games. A new ecosystem for computer games was created. The western video game crash of 1983 was partly a result of this process or at least it had accelerated the trend.

Figure 2: Traps’n’Treasures, a platformer with puzzle elements by Roman Werner, Ruedi Hugentobler (music) and Orlando Petermann, for Amiga, published by Starbyte Software (1993). Photo: René Bauer.

2. Social dimension

Up to the 1980s, mainframe computers dominated society’s understanding of information technology (cf. Gugerli 2018, Bauer 2019). But in the 1980s computer technology diffused into society with the availability and proliferation of personal computers such as the Apple II or the IBM PC. Many companies are beginning to digitize insidiously. The game industry has already moved from analog arcades to CPU-based arcades and consoles shortly before. Telepong clones and new affordable consoles such as SABA, Philipps Videopac and Atari 2600 appeared as game machines in homes in the late 1970s.

A purely technological view of these years undercuts the cultural dimension towards this first or second democratization of digitalization (then called informatization) and its new possibilities. A “documentary” by Swiss television

from 1989 manages to capture the zeitgeist well and shows the ambivalences beginning with the title: “Cape of Digital Hope”. The music is by the emerging band Kraftwerk, one of the first bands to work its way up the charts with its digital electronic music.

Figure 3: Entrepreneurs at the Swiss Data fair. Sitting at the desk, wearing a suit, and explaining software is Matthias Heubi, one of the two developers of WAR HELI (1987). Source: SRF Documentary “Cape of digital hope” (Schlumpf/Trinkler 1989). Screenshot: Beat Suter.

The film introduces the viewer to the theme of digitalization of the workplace by showing a Swiss Data fair with bright rooms and people in business attire at computers. But after only a few shots, the camera shifts to darkness and shows the title screen of the game WAR HELI. An evening glow with a (Swiss?) mountain range, music, and real-time color gradients that are familiar to insiders from the demo and cracker scene.

The cutscene between is interesting too. It shows a mouse (a trademark of the second generation of home computers) and a businessman in a tie and jacket playing the game WAR HELI. Then the film dives fully into the dark with a joystick and a darkened study (room). And the young businessman appears, and he turns out to be Matthias Kohler, who is developing the game WAR HELI together with Matthias Heubi. Kohler interrupts the shooting with "Hör emal uf game!" (Stop gaming!) and resets the computer. At this point, the documentary switches from playing a game to game development. Kohler simply shows the newly created level by inserting it into the computer – and the two friends look at it critically, respectively they stage the development of the game in the dark study (room) that is illuminated by a table lamp and the computer. Kohler designed the graphics and the music for the game, and Heubi wrote the assembler programs. The two men had met in a computer club. In the following scenes, the game development is only shown taking place at night.

Figure 4: Matthias Kohler plays WAR HELI, and the audience hears and sees the impact of the grenades thrown from the helicopter. Source: SRF Documentary (Schlumpf/Trinkler 1989). Screenshot: René Bauer.

Kohler and Heubi talk about how they were always sitting in front of a computer and playing games. Becoming more and more interested in how the games were made, they slowly broke away from all that gaming and started programming games. One of them even became an active Christian, which led him to a job as a software developer. The film vividly shows how they create a game scene and sample individual tones and sound. A reporter's voice asks: Wouldn't they like a girlfriend? Don't they feel lonely just interacting with a computer? The camera zooms out. The scene ends with their house late at night, with only the light in the study still on.

Figure 5: Matthias Heubi and Matthias Kohler in their study at night, developing the game. Source: SRF-Documentary (Schlumpf/Trinkler 1989). Screenshot: Beat Suter.

The documentary continues in this style with various aspects of computers and games and slowly moves on to the aspect of communication. Several short portraits of other people involved with computers are interwoven with nocturnal car rides from the driver's perspective through empty streets.

3. Community of Freaks

Although the film shows compassion to the developers, it stages the prevailing opinion and prejudices towards video game players, games, and their creators before the 2000s. The people somehow all appear slightly “strange”. Today they would be called nerds. The title of the article characterizes them as computer geeks, hackers, and crackers. They all – except for the young entrepreneurs – somehow move in a shadowy area. The documentary portraits them as different, socially absent, and mostly obsessed with their worlds. The term Freaks is probably an appropriate term for the image they receive in society and their own social environment.

Figure 6: The most distinctive faces in the documentary – a community of freaks. Source: SRF Documentary (Schlumpf/Trinkler 1989). Screenshots: René Bauer.

However the documentary only indirectly reflects the concerns and rejection of any changes brought about by the new digital technologies. And that’s how it was in those years: No one bragged that they liked games and enjoyed working with computers. Nobody bragged about what they did, because they didn’t want to be considered as a freak – nor a gamer, nor a cracker, nor a hacker. They kept to themselves in public places, computer clubs or arcades, and exchanged information within their own little community; anything else would have been social suicide. At the same time, some of these scenes and communities were region-specific. In German-speaking Switzerland, for example, the “Spielsalons” (arcades) were mainly male, quite unlike in French-speaking Switzerland where more women were involved. The social environment of the game developers and computer tinkerers of the 1980s is almost completely unexplored and was hardly portrayed in the media of the time. This is a large uncharted area that needs to be addressed.

The latent hostility to technology of those years was a major factor in society’s failure to recognize and interact with its young trendsetters. The NZZ (Neue Zürcher Zeitung), a dominant conservative Swiss newspaper, did not exactly distinguish itself as technology-friendly during the 1980s and 1990s. No wonder, then, that it noted in its culture feature pages that the other political side was also openly hostile to the new technologies:

„In der Schweiz und im europäischen Ausland engagierten sich linke Kreise noch während der 1980er Jahre im Kampf gegen die Informatisierung der Gesellschaft. Die Gewerkschaften riefen zur ‚Maschinenstürmerei‘ auf […].”
Stefan Betschon, NZZ 31.10.2008.

(Translation: “In Switzerland and in other European countries, left-wing circles were still engaged in the fight against the computerization of society during the 1980s. The trade unions called for ‘machine storming’ [...].”)

4. Freaks: Gamer, Cracker and Game Developers

In 2013 and following years, we were able to interview some of the Swiss game devs from the 1980s and 1990s. Unfortunately, no recordings were made in the process. A first meeting of various protagonists subsequently took place at the gameZFestival (2013) in the Zurich “Kunstraum Walcheturm”, a festival that centered around newly developed indie games but featured a curated show with games and their main mechanics that included older games as well and showed some of the Swiss video games of the 1980s for the first time. A second meeting took place a year later (2014) in the same venue and included arcade games and an expert presentation on arcades in Switzerland in the 1980s. Most talks and exchanges between new and old game designers were rather informal since many former game developers did not want to appear in the limelight. The results from the interviews and panels are summarized in this article and two follow-up articles that intend to provide an overview of the home computer scene. However, these and other interviews will have to be redone in the future with a clear focus and accompanied documentation including film and audio recordings as well as transcriptions.

Figure 7: A first Swiss Game Design History podium talk at gameZfestival 2013. From left to right: Matthias Heubi, Sam Jordan, Dario Hardmeier, René Straub, moderator René Bauer. Many other game designers were invited, among them members of the Computer Club Fluntern, but they didn't want to be on the podium, they sat in the audience. Photo: Beat Suter.

Figure 8: The program and the venues of the CAC, the "Computer Anwender Club Zürich" (applied computer club) from February to April 1986. There were repair evenings, an IBM meet evening, a 64 meet, an Atari meet, a "C" evening as well as the usual CAC meeting of the members. All the meets were open to anyone that was interested. Photo: René Bauer.

In the 1970s and 80s, communities met in various configurations. If they didn't meet in living rooms to play games together, they did so in designated playgrounds: in computer clubs, in game sale outlets – in Zurich, for example, in the EPA, where you could try out the latest games on computers and consoles – and of course, in the arcades, of which there were hundreds in Switzerland at the time. Probably the oldest gaming parlor in Switzerland was the Frosch gaming parlor on Froschaugasse in the Niederdorf district of Zurich. Opened in 1956, the Frosch was also used as a backdrop for shady characters in the famous Swiss film "Polizist Wäckerli" by Kurt Früh. At the time, it was filled with football tables and pinball machines. In the 1970s, videogame arcades were added. In 1978, the entrance age limit was lowered from 18 to 16. But by 1987, the Frosch was closed by court order because of noise pollution.

Figure 9: Pinball tournament at the Frosch gaming parlor in Zurich, 1978. It was dark so that the lighting effects came into play, the monitors didn't flicker so much – and the tournament was loud and the room full of cigarette smoke. Source: DRS Aktuell report from April 19, 1978. Screenshot: Beat Suter.

In the interviews, it quickly became clear that the game developers of the home computer era were going to the arcades because there, they found the most expensive and fastest gaming machines of the time. At best, the young game enthusiasts had free access to these machines from age 16. But not everywhere – in places where slot machines financed a large part of the arcades, the age limit had to be 18 years. The arcades were a mixture of various games, starting with analog table football and airfield hockey tables, analog and digital pinball machines and ending with digital video game arcades as stand-alone and cocktail table machines. The hardware of these arcades was usually the latest of the new, at least in the Zurich area. The game devs were fascinated by the expensive special hardware of the machines, which cost several thousand francs and offered everything you could imagine from fast processors, the latest graphics, and interesting interfaces to exciting new game mechanics.

“Unser nächstes Spiel lehnt sich schon an die Idee einer Arcademaschine an, aber sonst versuchen wir, eigene Spielideen zu verwirklichen.” Linel, 1988 in: Kleimann 1988 (Aktueller Software Markt 2/88)

(Translation: “Our next game is borrowing somewhat from ideas of arcade machine games, but otherwise we're trying to come up with our own game ideas.”)

Figure 10: R-Type (1987) was the epitome of speed, precision, and graphics. The design is strongly inspired by the Alien design of the Swiss artist H.R. Giger. Screenshot: René Bauer.

For most of the young Swiss game developers of the 1980s and early 1990s, the arcades were a fixed meeting place and an ideal starting point for their game discoveries and further pursuits. They discussed their ideas right there and in the many computer club events they attended. They went home inspired and with new ideas and continued to play on home consoles and computers and began experimenting with the games themselves. They formed cooperation and started serious independent game developing that kept them busy for years to come.

This article is only the beginning of further research into the history of Swiss Game Design that is mostly uncharted and unknown to the public. The GameLab (http://gamelab.zhdk.ch) of the Zurich University of the Arts (ZHdK) plans a comprehensive research project in cooperation with other Swiss institutions to document this historic game culture and preserve their games, cartridges, materials and objects and the corresponding machines in a physical archive that should be playable. The archive should be accompanied by a comprehensive digital database that will be open to other researchers and the public.

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