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Abstract	The history of digital games is often focused on the discourse of firstness and on the appreciation of pioneers. The result of this is that there is still little research on late stages of different game history phenomena. Using a case study of one of the last developers for the 8-bit Atari computers, Garda and Grabarczyk discuss this asymmetry, as they investigate the chronology of late 8-bit video games in Poland in the 1990s. The "cassette era" was for many Polish gamers a generational experience, as they were exploring the limitations and strengths of this medium. The final act of the first lifecycle of the 8-bit generation in Poland overlapped with the heyday of the demoscene and the ascent of the international retrogaming scene.	

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CHAPTER 3

"The Last Cassette" and the Local Chronology of 8-Bit Video Games in Poland

Maria B. Garda and Paweł Grabarczyk

Introduction

The discourse of *firstness* (Suominen and Sivula 2016) is omnipresent in the history of video games. Historians, both hobbyists and academics, repeatedly focus on the narratives of innovation and tend to ask questions about the *first* video game (e.g. published in a certain country), the *first* iteration of a given genre or the *first* game containing a certain property. Even though the dominant narratives created by this discourse are now being challenged by various scholars,[1] there still seems to be far too little research into late stages of different game history phenomena.

[1] For example, critical inspections of the emergence of the FPS genre (Arsenault 2009; Therrien 2015) or studies into the late use of ZX Spectrum platforms (Švelch 2017).

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In humanities, *lastness* is often considered in the wider sense of *lateness*. As Hutchinson (2016, p. 86) points out, the latter can be understood as an "aesthetic category of late style" (see Said 2006). However, in this chapter, we are not interested in lateness as a metaphor or an aesthetic trope, because this would demand a different, more formal or textual approach to video games. Instead, the aim of this chapter is to explore local historical factors that have affected cultural appropriation (see Hård and Jamison 2005) of 8-bit video games in Poland, focusing on the last—often overlooked—stages of that process.

The "Last Cassette", mentioned in the title, refers to the last 8-bit game published on a cassette tape in Poland. From a Western and strictly sales-oriented perspective, the 8-bit era might have ended in 1992, when manufacturers, such as Atari, stopped the support for 8-bit computer lines (Loguidice and Barton 2014). The technology was already obsolete and the market was dominated by newer platforms: 16-bit consoles (e.g. Sega Mega Drive or SNES), handheld systems (e.g. Nintendo Gameboy) and, of course, Amiga, Atari ST and PCs. However, in some countries, the 8-bit microcomputer's presence lasted longer. In the case of Poland, for various reasons we will detail below, 8-bit platforms, especially the Atari XL/XE machines, were popular until the mid-1990s. What interests us in this chapter is not only the longevity of certain platforms but also the special relation the local 8-bit scene had with the cassette tape and the resulting longevity of that media storage within gaming communities.

For the sake of the argument's clarity, we would like to start by explaining the notion of "lastness" used in this chapter. First of all, we are interested only in the final moments of the first commercial lifecycle of platforms. We do not take into consideration phenomena such as cartridge reproductions or new games published by retrogaming companies specializing in obsolete platforms (e.g. Psytronik Software or Flashback Entertainment). Even though this niche of retrogaming very rarely uses the medium of cassette (mostly for collector's editions),[2] including this phenomenon makes the notion of a "last game published on a cassette"

[2] For example, in 2012, a group of retrogamers re-released a Polish classic adventure game for ZX Spectrum—*Pandora's Box* (Borkowski 1986). The limited collector's edition of 100 copies came packaged in a hand-numbered metal box with a stylish label. But what is probably the most significant characteristic of this release, is what was inside the box: the game was published on a cassette tape, just like the original version.

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completely void, as there is nothing preventing companies from releasing new games on cassettes or re-releasing old games in this form.

Second, it is crucial to mention that the notion of a first commercial lifecycle (and thus the notion of lastness) has to always be relativized to a given social, political and especially economic context. There is no single commercial lifecycle of a platform but rather a number of parallel cycles existing in different local markets which may influence each other (on local game production, see Saarikoski and Suominen 2009; Swalwell 2005; Swalwell and Davidson 2015). These cycles may start and finish at different moments in time, depending on when a given platform is introduced in a given region and when the users and companies stop supporting it. For example, in the case study which interests us—the life of Atari 8-bit computers in Poland—the beginning and the end of the first commercial cycle differs significantly from the first commercial lifecycle abroad.

The 8-Bit Era Behind the Iron Curtain

Generally speaking, the chronology of the 8-bit era in Poland is similar to other countries of the Eastern bloc. Just like East Germany or former Czechoslovakia (Švelch 2018), Poland experienced a significant lag in the diffusion of computer technologies due to the Coordinating Committee for Multilateral Export Controls' embargo on sales to the countries behind the Iron Curtain (see Garda forthcoming). Only in 1984 did the regulations regarding 8-bit technology change and it became possible to legally import microcomputers from the West (see Mastanduno 1992, p. 269; Budziszewski 2015, pp. 400–401), though they remained hard to obtain, as they were expensive. The choice of brand varied depending on the country and particular government contract. Those decisions, often circumstantial and dependent on personal contacts, shaped the national 8-bit cultures for years to come. For example, in Poland, the introduction of the Atari 800 XL to the Pewex shops[3] in 1985 was a result of efforts made by Lucjan Wencel. This young physicist and entrepreneur was a trusted envoy of Jack Tramiel (Kosman 2015, p. 15), who was the then CEO of Atari and, perhaps even most importantly, was born in Łódź, Poland. Since the Atari family was the only computer sold via legal distribution, it had a great advantage over its competition—it was sold with a warranty (Wasiak 2014, p. 135). By the end of the decade, the Atari XL/XE computer

[3] Pewex was a hard-currency shop (see Wasiak 2014, pp. 134–135).

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family[4] had a dominant market share, overshadowing the previously popular Sinclair machines. The *status quo* continued even after the transition to a capitalist economy, when Polish gamers were flooded with old gaming machines from the West. But these statistics were not uniform across other socialist countries in Central and Eastern Europe. Just across the Carpathian Mountains, in the former Czechoslovakia, the ZX Spectrum scene was still relevant, with the other dominant platform the Commodore 64 (Švelch 2017).

Transition from a state-controlled socialism to a capitalist market economy legally started on 1 January 1989 with the so-called Wilczek's Act, "proposed by Mieczysław Wilczek (then the Minister of Industry) liberalised the law on private business and introduced a laissez-faire system which led to an explosion of small businesses" (Garda forthcoming). The economic difficulties of the system transition (e.g. low income), the dominance of the Atari 8-bit platform and the lack of new Atari software (even though there was still a high demand for it) resulted in an economic niche which was quickly exploited by newly created software companies. As a result, Poland—as the only country of the Eastern bloc where Atari was popular—became what Kluska and Rozwadowski (2011) called the *Last Fortress of the Little Atari*,[5] because at this point Poland was Atari's biggest market (Lendino 2017, p. 104). From a historiographical standpoint, this framing of the Polish 8-bit era may evoke well-known narratives, such as Hesiod's so-called Golden Age (see Rosenmeyer 1957, p. 260) or Gibbon's works on the decline of the Roman Empire (see Bowersock et al. 1977). But the actual motivation of the Polish users of the era was to close the technocultural distance between Poland and the West (Budziszewski 2015, p. 399).

Budziszewski (Ibid., p. 406) states that "[t]he end of the 1980s also marks the beginnings of a renaissance for the 8-bit Atari machines [in Poland]". However, this is not an accurate statement. It was not a renaissance as the 8-bit machines were only experiencing their first commercial lifecycle in Poland—the cycle was shifted as it started and ended much later than it did in the West. This has caused interesting overlaps in the temporality of 8-bit and 16-bit platforms. The transition was uneven as

[4] The most popular models were Atari 800 XL, Atari 65 XE and (to a lesser extent) Atari 130XE.

[5] "Little Atari" (pol. *Małe Atari*) was a popular nickname of the 8-bit series of Atari computers which differentiated it from the 16-bit ST/STE series.

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officially available 8-bit platforms co-existed with unofficially imported 16-bit computers that could be purchased by citizens who had significant purchase power. On top of that, computer magazines started to publish materials on 16-bit computers based on Western publications.

Even though such overlaps are hardly uncommon in the video game industry,[6] the aforementioned shift of commercial cycles of 8-bit platforms in the West and in Poland makes it unique. If we look at hardware transitions within a single economic context, you will see that it is typically accompanied by "transition software"—games which appear on both platforms (in separate versions). Since Western companies producing software for 8-bit computers did not support these platforms anymore, they did not produce either scaled-down versions of their 16-bit games or scaled-up versions of their 8-bit games. Instead, these companies completely abandoned the 8-bit market. This resulted in interestingly disjointed libraries of overlapping hardware platforms: new games for 8-bit computers were produced almost exclusively by Polish developers and new 16-bit games were produced practically exclusively by Western developers. This pattern repeated itself in later contexts. For example, with the release of the Sony Playstation console for international markets in 1995, some proclaimed the death of the floppy disc, as the machine was using a CD-ROM. However, at the same time, games were still being published on cassette tape for 8-bit platforms. This overlap of different gaming platforms, and as a result media storage technologies, is perhaps hard to understand from the present perspective of digital distribution. However, at the computer fair[7] in Poland in the mid-1990s, one could see all of the technologies in one place co-existing with each other: an 8-bit machine stand next to a PC stand (Fig. 3.1).

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[6] For example, think of a recent transition period between Playstation 3 and Playstation 4 as an example of this.

[7] Another term used to describe this phenomenon is "computer bazaar" (Wasiak 2014). However, we have decided to use the term "computer fair", as the notion of a bazaar, even though it might be good for the description of the biggest market of that sort (Persian Bazaar or even Grzybowska), it doesn't work well with the smaller computer fairs (e.g. in Łódź or Wrocław).

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Fig. 3.1 The computer bazaar at Grzybowska Street in Warsaw (March 1993). (Source: PAP/Teodor Walczak)

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On Cassettes and Gamers (the Magnetic Charm of Cassettes)

It can be argued that the "cassette era" was for many Polish gamers a generational experience, just as it was for listeners of popular music (Kilpiö 2016). This often-romanticized birth of the Polish gaming industry was also a time of great political, economic and social change, as the so-called post-communist transformation affected all aspects of life.

What we know today as the dominant cassette tape format of the twentieth century was developed by Philips in 1962 in Belgium.[8] In the following decades, it became very popular, as Andriessen (1999) reports: "between 1980 and 1990 only the Japanese consumer electronics industry produced some 160 million cassette-containing equipment per year" (p. 11). The compact cassette became a common media storage for digital games with the ascendance of microcomputers. Cassette's peak popularity

[8] On the format wars and the development of magnetic tape data storage, see Andriessen (1999).

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was in the mid-1980s when not only many new games were released on tapes, but also "classic" arcade games and console games (e.g. made for Atari 2600) were ported to microcomputers.

But cassette tape had one serious problem: limited piracy protection capabilities (Aycock 2006, pp. 154–55). As Wasiak (2014) puts it, one of the main cultural scripts of gaming culture in communist Poland was the practice of "playing and copying", as gamers "built up networks to exchange tapes and disks with software, so-called Sneakernets" (p. 141). An essential part of that script was the cassette tape. The sneakernets transitioned into computer fairs. The sellers would go on Saturday morning by train to Warsaw, to obtain new games, which they copied very quickly so they could be sold in local computer fairs on Sunday (Doros 2015).

Copying times of the cassette tape were critical to the success of this software distribution system. The access time of cassettes was their main drawback even when it came to regular consumers, as loading times were often several minutes. Indeed, realtime length of the programmes stored on cassettes might have even been considered a form of copy protection in itself. Any imperfection in a copy resulted in a loading error, interrupting the whole process. Because of this, length added to the difficulty of copying a programme, as every minute added to the probability that errors would be introduced. The copying itself was conducted in two ways. Either the user facilitated the process using specialized copying software (so called copiers),[9] or she tried her luck using standard hi-fi equipment and copied the cassette as if it were a regular audio recording, a technique that was prone to errors but which required practically no technical knowledge.

One crucial invention which helped illegal cassette distribution in a significant way was the so-called turbo systems. Produced by different local developers, turbo systems allowed for the data to be loaded (and saved) much more quickly. The technique condensed data by using much faster alternating signals which encoded the signal on the cassette. This method was well suited to piracy because it allowed sellers to create collections of many games stored on a single tape, a packaging innovation that made much less sense from a software company's perspective. For users, turbo systems had only two downsides. First, they demanded the tape deck be modified as the original machine was not capable of registering alternating signals at this frequency. Similar to the chips used to modify

[9] For example, a German programme "CDT Copierer" was created in 1988.

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later consoles which enabled them to read pirated software, the installation of turbo chips was typically a service provided by pirate sellers at bazaars. Second, due to their condensed nature, turbo programmes were more prone to having copy errors, though use of the aforementioned specified copiers mitigated this to an extent.

It is worth noting that prior to 4 February 1994, copyright in Poland did not explicitly include software, so copying games was technically legal. However, some of the anti-piracy advocates of the era argue that the existing law protected games developed locally (Borkowski 2016). After 1989, some of the "computer studios" (see Wasiak unpublished), that in practice distributed pirated games, became interested in publishing games produced by local developers.

The standard cultural scripts of obtaining and sharing software were only one of the factors that contributed to the romanticized image of cassettes. One especially interesting way to obtain new software was a radio show "Radiokomputer" broadcasted on the Polish Radio Channel 4. Like every radio channel in the 1980s, it belonged to the state. The unique feature of this programme was that half of it was devoted to broadcasting the sound wave of games which the listeners (if we can call them that) could then record on cassette tapes and load into their computers (typically ZX Spectrum or Atari). It can be thus argued that from the functional point of view, the experience of Polish cassette users did not differ from later online piracy on PC computers, as they were able to easily share, copy and "download" new software (on similar or related technologies of early file sharing, see Skågeby 2015; Stachniak 2014).

One last aspect of the operation of cassettes that is worth mentioning is that the loading process itself was often considered to be something of an art. First of all, it was common for games not to load properly because the magnetic header of the user's tape deck was aligned differently to the magnetic header of the person who recorded the tape. Note that this could also happen to a single user if she happened to regulate the header after saving a programme to tape. And there was no way for her not to do it from time to time in order to load software coming from different sources. In order to regulate the alignment, users had to use a small screwdriver to turn the screw of the header (conveniently accessible through a special hole in the tape deck). In principle, users could regulate the header while listening to the sound, but more often than not, they used specialized programmes which helped in the process.

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It is also crucial to remember that some of the technical aspects of the cassette co-determined the types of games which were released on this medium. Polish programmers had to produce games only in selected genres. Disk drives and cartridges were not common enough, so they had to produce games for tapes. This limited their options regarding the choice of game genres. To understand this, we have to say a few words about the peculiarities of the tape medium. The best way of looking at cassette tape from this point of view is to consider it as an interesting intermediary between cartridges (both 8-bit Atari computers and C64 gave the developers the possibility of using this medium) and floppy disks (which could have been used for all popular 8-bit systems of the era). Contrary to cartridges, cassettes did not constrain games as much in terms of the size of their assets or chunks (e.g. levels). Creating complex, multipart games was possible (they would have been terribly expensive on cartridges due to storage limitations) and even game saves could be implemented.[10] Still, contrary to floppy disks, creating non-linear complex games stored on cassettes was a very difficult task. The reason for it was that cassettes worked best if the string of chunks that needed to be loaded to memory was fixed. Racing games, such as *Test Drive* (Distinctive Software 1987)—which had a C64 tape version—is a good example of this. But if predicting the chunk that needed to be loaded was not possible, cassette became a very inconvenient medium as the player would have to fast forward and rewind the tape all the time (in order to simulate random access possible on floppy disks). This limitation of the medium restricted the number of types or genres of games released for cassettes. For example, more complex adventure games were rather rare (all of the Infocom classics from the 1980 have been released only on disks). All of these unique aspects of cassettes (sociocultural, economic and technical) suggest that tapes should not be treated simply as one of the possible media, but rather as a platform in its own right.

It is difficult to estimate the scale of the cassette tape market in Poland in the early 1990s, especially given the reusable nature of the cassette itself. Indeed, in Poland, many distributors in the early 1990s were reusing tapes previously recorded for other purposes, such as music or language learning (see Garda forthcoming). Waldemar Czajkowski, one of the main distributors of that era, says he circulated about one million copies of cassette tapes with various software, the majority of these being video games (Czajkowski 2016).

[10] See *Elite* (Braben and Bell 1985) or Polish adventure game *Mózgprcesor* (Computer Adventure Studio 1990) as good examples of this.

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The compact cassette is recently experiencing a revival, with a 76% surge in sales (Caulfield 2016), that can be associated with the 1980s nostalgia. However, the approach to this media storage is different in the retromusic and retrogames scenes, as the classic 8-bit titles are re-released on tapes only for collecting purposes and more likely on other storage media. Contemporary retro-8-bit games (Garda 2013) are usually published online as an image file (*.tap). For this reason, cassette tape will never become to the gaming industry what vinyl is to the music industry. But back in the day, the cassette tape technology was important to the relationship gamers had with the microcomputer technology of the 8-bit era, just as it was crucial for listeners of music (Kilpiö 2016), even more so in countries like Poland where access to the latest technology was limited.

The Decline of the 8-bit Video Games

To define the end of an era can be just as challenging as finding its starting date. In both cases, it is important to acknowledge that there is no single date, as Garda's extraction and analysis of games on tape from the MobyGames database illustrates.[11] Table 3.1 shows a steady decline of

Table 3.1 Video games published on a cassette tape (1977–1999) based on the data collected by MobyGames' users (22 July 2016)

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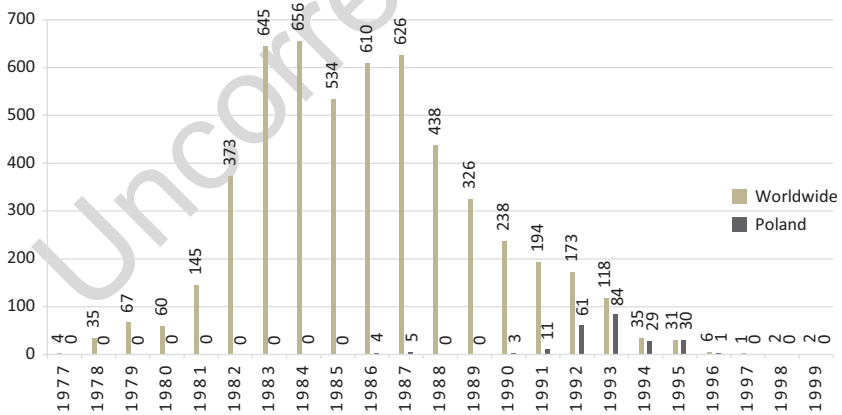

[11] The data set consists of a list of games extracted from the MobyGames database on 22 July 2016. The original list was created by selecting—from the view of all games for all platforms, catalogued at the time—only the titles marked by the attribute "Media Type: Cassette

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games published on cassettes after 1987, in light grey. This correlates with a decline in the number of games published for all 8-bit platforms, regardless of medium.

The peak of cassette tape usage occurred in the mid-1980s. We can also observe a smaller peak in the Polish data set, shown in black in Table 3.1. The graph suggests that the 8-bit era reached its peak in Poland in 1993. In this year, according to the MobyGames data, a total of 84 games were published in Poland, including 71 for the 8-bit Atari, 15 for Commodore 64 and only 1 for the ZX Spectrum platform. But perhaps the most interesting year is 1995 when all but one of the commercial titles for 8-bit platforms were published in Poland. The only other title was *Lunar Blitz* (Cosine Systems 1995), which featured in an early British retrogaming[12] magazine *Commodore zone*. What follows is the "long tail" of the Polish tape publishing.

Supplementary archival evidence from the L.K. Avalon[13] (n.d.) order form[14] confirms the MobyGames data from Poland, revealing that until the mid-1990s, the company produced 89 games and distributed 31 third-party games for Atari XL/XE, and 142 and 31 third-party games for Commodore 64 (not including collections). However, it seems that the company's definition of production might have been a bit different from the way we think about it today, as it most likely meant producing the material copy of the game, not necessarily developing or publishing it.

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Tape". The selection of media storage type resulted in narrowing the platform's range to 45 models of 8-bit microcomputers, as only these catalogued platforms were using cassette tapes. The initial data set included 5360 games published worldwide on a cassette tape, for the 8-bit machines, between 1977 and 2016. In the next step, we have focused on the titles released between 1977 and 1999. Subsequently, we have separated a list of games published in Poland. For the years between 1990 and 1999, we have manually checked the country of release as it is listed in the "Release info" section of the MobyGames entries. For the period between 1977 and 1989, we have cross-checked the initial data set with the list of entries added by two most active Polish users (Karsa Orlong and JudgeDeadd) and then supplemented the list based on recurring titles and author's own expertise.

[12] This might be an anachronism, as the retrogaming movement was only gaining self-consciousness.

[13] L.K. Avalon and, to a lesser extent, Mirage were two main publishers and distributors of video games in the early 1990s in Poland. Apart from these two key players, there were a couple of smaller publishing companies and numerous development studios.

[14] Possibly from the year 1996 or early 1997.

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Even though Commodore 64 had a longer mainstream presence (until 1996), as it had a bigger game library to offer, the games published in Poland were mostly developed in the West. On the contrary, Atari ended its mainstream existence in 1993, but the number of games produced for the platform decreased much earlier—at the end of 1980s. This resulted in a niche that could be exploited by local creators. Creating games for the C64 was much more difficult as they had to compete with Western games developed at the time.

According to MobyGames, the last 8-bit game to be published on cassette in the UK was *Mayhem in Monsterland* (Apex Computer Productions 1993). After that, the 8-bit games published in the UK were mostly collections (i.e. re-editions) and games featured in newspapers, such as *Commodore Format* (1990–95).

The commercial death of cassette in Poland came later. Until 1995, many game designers created their projects for outdated platforms and still found their audience (e.g. *Miecze Valdgira* series). These so-called Polish late 8-bit games (Garda and Grabarczyk 2014) were hits on the local market up until the mid-1990s. In 1996, the new 8-bit game *Knoorkie: The Pig* (Ossowski and Maroński 1997) had difficulty finding a publisher (Kluska 2015). According to the L.K. Avalon records (Pazdan 2016), the last title published by L.K. Avalon for the Atari 8-bit platform was the game *Włóczykij* [Vagrant] (ECS 1993) and for the Commodore 64 a turn-based strategy game, *Gwiezdny kupiec* [Star Merchant] (Skowroński 1996).

Pazdan (2016) suggests that the longer life of Commodore was related to the temporality of the company in the Polish market. It entered the market later than Atari but also stayed longer. Furthermore, as Pazdan accurately observes, even if the 8-bit micro wars in Poland were a rather even race between Atari and Commodore, the 16-bit competition was a clear win for the Commodore Amiga over the Atari ST. Pazdan recalls that in the early days of L.K. Avalon's history as a publisher, less than one-third of the submitted games ended up in development; later, it was only one-tenth. It suggests that even more games were written, their quality suffered as more experienced programmers moved to different platforms.

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Sikor Soft and the Last Cassette

Our research suggests that the last video game published on a cassette tape in the first commercial lifecycle of the 8-bit platforms in Poland, was *Tekblast* (Skrzypek and Lepkowski 1998). It is a conversion or a "demake", as we would call it today, of an installation in the *Bomberman* franchise, known in Europe as *Dyna Blaster* (Hudson Soft 1991). It does not mean that *Tekblast* is just a clone, a derivative work that lacks innovation. Rather, it is an effect of what Švelch (2017) calls the long platform utilization progress. As a platform grows old, the users learn more and more on how to transcend its limitations and are able to create more and more technologically advanced games. Furthermore, we would say that this process is not solely about platform users existing in a niche but also about the designers looking for inspiration in the libraries of other platforms. Thus, in the case of *Tekblast*, the creator's goal was to show that what can be done on a 16-bit computer, can also be achieved on a "Little Atari". Unofficial conversions of this type filled the void of transgenerational software which players who were not able to make the leap to 16-bit, demanded. The main designer and programmer of *Tekblast* was a member of a demoscene group called Excellent, and aesthetically the game resembles the group's demos—for example, *Vengeance* (1997), especially in the menu section. It is a rare example of an Atari XL/XE title that allows up to three players (i.e. two are using joysticks and one is using the keyboard). The connection with demoscene developers is not coincidental. As can be seen in the records of demoscene database Pouet, creators of demos typically stayed with their chosen platform long after its commercial cycle had ended. Additionally, they are highly skilled in the technical side of development. This makes them perfect choices for developers of ports or conversions of games released for more advanced platforms as the job does not require game design skills and presents an interesting intellectual challenge.

The publisher of *Tekblast*, Sikor Soft, was established in 1994 by Piotr "Sikor" Sikorski. Sikorski was a typical representative of what we can call the Polish 8-bit generation. He was born in the 1970s and introduced to microcomputer technology in the 1980s. Sikorski's youth coincides with the microcomputer revolution in Poland and the rise of computer game fairs. He was first introduced to computer technology through a programming class (Atari Basic) at the local community centre, and in 1987, his

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parents bought him his first machine (Atari) at a hard-currency retail store (Pewex).

As he was born and raised in Warsaw, Sikorski was exposed to the early adopter's circles in the capital, which often had access to the new technology before other parts of the country. The main hub for that community was the Polish computer game fair, with the most famous operating during the weekends in a school building on Grzybowska Street in the Warsaw city centre. As he recalls: "At that time, [L.K.] Avalon and Mirage were already multiplatform [moving away from 8-bit – MBG]. (…) You could already feel that there are less [8-bit] releases but still a lot of people willing to code" (Sikorski 2016).

In the first two years (1994–95) of operation, Sikor Soft published over a dozen games, selling around 500 copies each, but later the numbers dropped to circa 250 copies per title. The games were distributed in cooperation with the two main players on the market: L. K. Avalon and Mirage Software. According to Sikorski, these companies forced smaller studios to publish on cassette tape. The reason for the pressure was economic: the disk games were just too expensive for Atari 8-bit users, and if the company wanted to maintain a revenue, they would have to sell the cassette tape version. Unfortunately, many people preferred to have a pirated version than the original, as it was cheaper. The insistence on distributing via cassette tape limited programmers' capabilities (Sikorski 2016). Disks offered more options, not only in regard to space but also in the sense of non-linear gameplay development.

In the four years between 1994 and 1998, Sikor Soft published a total of 18 games,[15] most of which were developed by members of the Polish demoscene. Interestingly enough, two titles were Polish editions of games developed by a Slovak demoscene group, called Satantronic. Sikor Soft was interested in all kinds of genres, from the then popular erotic puzzle games (*Sexy Six*, 1995)[16] to football managers (e.g. *Liga Polska* [Polish League], 1995) and action games (e.g. *Nexus*, 1996). However, puzzles and strategy games—which offered rather slow gameplay—were dominant in the company's portfolio.

[15] Not including game editors and data disks for already existing titles.

[16] *Sexy Six* (Sikor Soft 1995) was allegedly the only 256-colour game published for the 8-bit Atari in Poland, and in addition to that, the only game to be published on no less the four disks.

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Why was *Tekblast* the last game? Eventually, because of shrinking revenues, Sikor Soft was unable to meet the salary expectations of developers, as they could find better jobs in the growing IT sector. Furthermore, the demoscene was experiencing an aesthetic shift towards the PC (Reunanen 2017) and the interest in the 8-bit platform faded away (with some noticeable exceptions), at least for several years until its resurgence in the service of retrogaming and nostalgia.

When *Tekblast* came out in 1998, the mainstream death of the 8-bit platform in Poland was a fact. Game magazines were no longer reviewing 8-bit titles. The computer fairs as a hub for the 8-bit community were fading into the past. Small distributors potentially still interested in 8-bit production were losing the fight against supermarkets and big players, such as CD Projekt, the future developer of the *Witcher* series. The first commercial cycle of the "Little Atari" was coming to an end.

Conclusions

In 1995, early retrogaming magazines such as "Commodore Zone" from the UK, a spiritual successor to "Zzzap!64" (1985–1992), were publishing new Commodore 64 games. Beginning in 1995, tapes were added as covermounts. The retrogaming community was emerging (see Suominen et al. 2015). For that reason, one could argue that the 8-bit era is not over, and as a matter of fact, it will never be, because new 8-bit video games are still being developed. For example, Psytronik Software is still publishing new productions. However, in our chapter, we wanted to take a better look at the late stages of the 8-bit scene in Poland. We are aware that at the same time in other countries, another period was already starting. When Waldemar Czajkowski's software distribution company filed for bankruptcy in 2000, the liquidator decided to segregate remaining games into two groups, namely "8-bit" and "others". The stock of 8-bit cassettes was to be sent to waste, as in the eyes of the liquidator it had no market value (Czajkowski 2016). Only 10 years later, this "trash" would become valuable again and started to circulate on Polish and international online auction websites. Games published by Sikor Soft might have been the swan song of the commercial era of the 8-bit generation, but they were also the dawn of a different phenomenon. The final act of the first lifecycle of the 8-bit generation in Poland overlapped with the ascent of retrogaming internationally.

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