

SKOOL DAZE

A Plea for Dissentience

Abstract

The historic sandbox computer game SKOOL DAZE, released by Microsphere for ZX Spectrum in 1984, is analyzed in the context of its importance for the game development industry, with conceptual parallels extended into the domains of natural science and arts. The ability to accomplish the game only by displaying rebelliousness in an inherently cruel academic system is connected with a similar principle applying to innovation in science and art. Both science and art are exercises in imagination that require mischievous playfulness, a point that is intrinsic to SKOOL DAZE. The article also makes the case for this game as a potential source of inspiration for the creation of conceptual art or science when viewed in a historical context. A sense of nostalgia about the early days of computer games pervades the paper, which ends on a confessional but high-spirited note.

Keywords

SKOOL DAZE, Abandonware, Academia, Animation, Cognition, Creativity, Education, Indie, Metamessage, Nostalgia, Paradise Lost, Retro

Biography

Vuk Uskoković, PhD, is a cofounder of the biotech startup TardigradeNano and a lecturer in engineering at San Diego State University. He was the founder and the director of *Wolfline, Inc.*, a demo design and software trade subsidiary to *Gremlinsoft*, a largest library of programs and games for Commodore 64 and Amiga in Yugoslavia in the 1980s and the 1990s. In the 1990s, he was in a Belgrade underground band *Tišina kod poluzvezde* as the lead guitarist and a songwriter. In the 2000s, he was a scientist at various educational and research institutions, including Serbian Academy of Sciences and Arts, Jožef Stefan Institute in Slovenia, Clarkson University in New York, and University of California San Francisco. In the 2010s, he was a professor in the departments of bio-engineering, pharmaceutical and biomedical sciences, and mechanical and aerospace engineering at University of Illinois in Chicago, Chapman University and University of California Irvine, where he taught graduate and undergraduate courses on materials chemistry, physics of nanotechnologies, biopharmaceuticals, medical devices, and other subjects. He has authored over 200 peer-reviewed scientific articles and a dozen books. Alongside his dedication to research in natural sciences, he has published studies from multiple fields of arts and humanities (vuk.uskokovic@tardigradenano.com).

You ever felt so far gone you couldn't be sought?

During this journey there were some things I had to learn that couldn't be taught.

The flux from boy to man and how to be one, with questions to be answered like will I live to see one?

Jon Deaux, 2016, Skool Daze, 131

Introduction: The Gateways to Science

Videogames can be gateways to worlds of meaning extending far beyond the relevance colloquially ascribed to them. One such world of particular interest to this author is that of the natural sciences, specifically those evolving within the confines of academia. In what follows I will weave threads of thought around different aspects of the development and graphic interface of a videogame of historical importance, namely SKOOL DAZE (Microsphere, UK 1984). In the process I will derive remarks of significance for the evolution of science and its spiritual roots.

Discoveries in natural sciences clearly prepare the ground for developments in the videogame industry. In turn, approaching science as a game can have innumerable positive effects on research creativity, as is evident from the discovery of scientific processes and products when researchers began to treat research as a game.¹ This is to say that not only does science form the bedrock on which videogames are built, but these games can also have a pronounced effect on science. The products of the videogame industry are rarely discussed, however, from the standpoint of their reverse influence on the creative process in the sciences to which they owe their existence. In this article I attempt to show that such connections can be inspirational and instructive for scientists from all disciplines. As a prelude to this argumentation, the historical events leading up to and following the development and release of SKOOL DAZE will be elaborated in the context of the importance of this game for the videogame culture of the 1980s and beyond. Still, the main focus will be on discussing the broader relevance of this game to numerous fields of human inquiry, ranging from natural sciences, to arts, to humanities. A particular emphasis will be placed on the analysis of the implicitness of dissentient, antiauthoritarian stances, explored here

1 Uskoković/Uskoković/Wu/Uskoković 2020.

in the context of immersion in the academic environment represented by the game. Last but not least, the text follows the structure of the Bible, starting off with historical remarks, then moving on to the elaboration of the merits of minuteness, modesty and rebellious newness, which leads to crucifixion and expulsion from the reigning ecclesiastical order, confession, the tumult of the dark night preceding the dawn of revelation and, finally, emersion in the sunlit meadows of “a new heaven and a new earth” (Revelation 21:1, KJV), of childhood rediscovered once and for all.

SKOOL DAZE: How It All Began

Imagine. It is 1983 and the first crash of the electronic game market has just begun.² The reason? The market is saturated with unimaginative games, most based on a few similar concepts, be they platform games in the style of *DONKEY KONG* (Nintendo, JP 1981), *POPEYE* (Nintendo, JP 1982), *BAGMAN* (Valadon Automation, FR 1982) or *MINER 2049ER* (Big Five Software, US 1982), shoot 'em up arcades à la *SPACE INVADERS* (Taito, JP 1978) or *GALAXIAN* (Namco, JP 1979), racing games of the *SUPER BUG* (Atari, US 1977) or *LE MANS* (HAL Laboratory, JP 1982) kind, or maze chases as in *PAC-MAN* (Namco, JP 1980) or *WIZARD OF WOR* (Midway, US 1980). Meanwhile, most adventure games are stylistic derivatives of *MYSTERY HOUSE* (On-Line Systems, US 1980), with more intricate plots but also a purely textual interface and no animated graphics. At this very time, in a rented apartment at 72 Rosebury Road in London, a husband and wife, David and Helen Reidy, run *Microsphere*, a mom-and-pop startup computer game development company with the Reidys its only employees. They had started a consulting firm a year earlier, but by 1983 had moved fully into videogame development. At around that time, the Reidys came up with the idea for a game that would prove unprecedentedly innovative for its times. The recession in the videogame market, which had become more profitable than the film industry or the music industry but would not begin to recover until 1985,³ would harbor extraordinary opportunities for the Reidys.

But first, to implement the idea in a stylish manner, they needed a graphic artist. In search of one, Helen Reidy's mother connected with Keith

² Wolf 2012.

³ Wallach 2020.

Warrington, the unemployed artist and son of a friend, who was training to become a schoolteacher, a profession Helen had also practiced at times.⁴ With Keith's drawing input, the Reidys would go on to create one of the most beloved videogames on the 8-bit platforms: SKOOL DAZE.

We might think the married couple were motivated in their endeavors by a desire to save the videogame world from drowning in the mud of monotony, but this would be far from truth. As David Reidy pointed out two decades later, "I never really thought about how to make it unique or special. It was just a game."⁵ And so, as centuries of innovation in science also testify, the simple and unpretentious play can lead to stunningly novel forms of expression even if no assault on an existing paradigm was intended. Here we begin to see how a game such as SKOOL DAZE can be considered inspiration for artistic or scientific expression, the principal focus of this article.

An example from the realm of science is helpful here.⁶ In the 1930s, young researchers at DuPont were working on the production of artificial silk. When Wallace Carothers and their other supervisors were absent, they were horsing around and running along the long hallways of the research facility, drawing threads of polyester with straws and sticks. At one point, they figured out that stretching the polymer impelled the molecules to adopt an oriented structure with an increased strength. They returned to a polyamide substance they had previously discarded as it seemed unable to adopt a solid form due to a low melting point and repeated their "cold drawing" game. This is how they created Nylon, a material that would go on to revolutionize the textile industry. And the discovery, as we see, was owing to the discoverers' epitomizing one of young Wittgenstein's key maxims: "If people did not sometimes do silly things, nothing intelligent would ever get done."⁷ This is an immediate reminder that the relationship between science and games, including computer games, can be mutual. Science lies at the heart of videogames, while videogames can be excellent facilitators of scientific education and discovery, as rare, albeit outstanding, research on this topic has demonstrated.⁸

4 Mason 2019.

5 Green 2010.

6 Uskoković 2019a.

7 WITTGENSTEIN (Derek Jarman, UK 1993), 00:00:20.

8 Uskoković 2020a; An/Haynes/D'Alba/Chumney 2016; Orloff/Truong/Cira/Koo/Hamilton/Coj/Wu/Riedel-Kruse 2014; Das/Keep/Washington/Riedel-Kruse 2019.

Rules of the Game: To Live By or Not

SKOOL DAZE was released for ZX Spectrum in December 1984, less than a year after its development had begun, and it became an instant hit. In October 1985, the game was released for Commodore 64, the home computer platform around which my gaming and hacking experience in the 1980s almost entirely revolved. In its default version, the game puts the player in the shoes of a character called Eric, who is a schoolboy, a troubled one too, as it is revealed to the player by the game description. Eric needs to find a way to recover a derogatory report locked in a safe in the headmaster's office. Why Eric's report is bad and must be stolen is never made clear, but this information is enough for the player to enter the game with the premise that Eric is a troublemaker and a hero at the same time. This simultaneity of being a hero and a troublemaker in an academic setting will resonate all through this essay, from the first of its lines to the last.

Each time Eric breaches the exceptionally rigid rules of the school, he gets assigned a certain number of lines to write as a form of punishment. Once he reaches ten thousand lines, he is sent home to write them and the game is over. In the only sequel to SKOOL DAZE, released a year later and called BACK TO SKOOL (Microsphere, UK 1985), lines could be erased by kissing a girl, Hayley, but here, the line attribution is irreversible. Each time Eric is given lines, the player is also punished, with a characteristic screeching, high-pitch two-note fourth interval. The same interval that produced Bill Evans' meditative melody in "Flamenco Sketches" played by Miles Davis' trumpet⁹ here takes the form of a uniquely unpleasant and ear-piercing ostinato.

The game requires the player to guide Eric through one or more school days, with the ultimate goal of lighting up all the little shields on the walls and ceilings of the school to unlock the safe in the headmaster's office, then stealing the report and shutting down all the lighted shields. Shields that could be reached by the hand are switched on or off by jumping and hitting them. Other shields must be hit with a rock, either directly, from the nearest staircase, or, more commonly, by knocking down a teacher with a catapult first and then using that same tool to bounce another rock off the teacher's head and into the shield.

Eric's inevitable mischievousness aside, the game depicts schools as sites of tragicomic callousness and cruelty. In the school, pupils are exposed to

9 "Flamenco Sketches", by Bill Evans and Miles Davis (*Kind of Blue*, Columbia, New York, 1959).

constant conditioning via admonition from the authoritarian administrative figures. Eric, like all other students, is expected to be present in the right classroom for each assigned class and if he happens to be absent, the teacher will search for him through the school and penalize him with lines if he finds him before the bell rings. In-between the classes, the headmaster and three teachers roam the school to ensure order and discipline are maintained. Students are often punished for someone else's wrongdoings, an injustice only too familiar to us who have abided in various educational institutions for long enough. At the same time, however, the pupils, Eric included, are being constantly threatened by other schoolboys, including the punching bully Angelface, the nefarious, oft-catapult-firing Boy Wander, the swot and tattletale called Einstein, and a herd of smaller boys who occasionally trample over Eric in the hallway. Hence, the hero, like so many academic dwellers of the present and past, finds himself squeezed between the sordidness of the students and the corruptness of the administrative order, and he must find a way out.

That situation is familiar to academic appointees of all ages, from the cradle to the grave, save the silver-spooned few who have attended posh private schools or those who have been to democratic schools modeled after Alexander S. Neill's Summerhill, in Suffolk¹⁰ or Mosse Jørgensen's Forsøks-gymnaset, in Oslo.¹¹ SKOOL DAZE, clearly, does not resonate with school systems of this latter type, which are alternatives to today's obsolete scions of the occidental educational systems of the industrial age, but provides instead a cartoonish parody of English public schools of the 1980s. During this unique time, pupils were perhaps sandwiched tighter than ever before or after between the top-down oppression of conservative authoritarianism and the bottom-up exhibitions of hooliganism from the days predating the Heysel tragedy, that is, prior to the methodical curbing of both.

In 1986, less than two years since the release of SKOOL DAZE, a videogame development company launched by British Telecom put out an even more frightening portrayal of schools. In this game, ironically called THE HAPPIEST DAYS OF YOUR LIFE (Firebird Software, UK 1986), not only was the school located on Road to Ruin, which led to Dolesville, but it also took the form of an empty edifice inhabited only by deadly objects that float in space and drain the schoolboy's energy. In addition to the more innovative graphic and

10 Neill 1960.

11 Jørgensen 1977.

character design employed in SKOOL DAZE, as well as its greater playability and more immersive experience, one essential component that has made this game stand out over THE HAPPIEST DAYS OF YOUR LIFE lies in its rootedness in realism and freeness from any supernatural elements, meaning that any criticism of the schooling system in it was guaranteed to be taken for its face value more readily. Putting the player in the shoes of a schoolboy attending one class after another while being bullied by classmates and punished endlessly by the school authorities was, simply, a more direct way of conveying the idea that there is something wrong with the end of the pipeline of the educational system.

In this rather bleak context, the major solace and source of amusement for the player and the schoolboy protagonist of SKOOL DAZE is lighting up the shields on the walls and ceilings. As it happens to many dreamers confined in cruel educational systems, the only way out is to look up and beyond their walls, evoking Socrates' musing, "He would like to fly away, but he cannot; he is like a bird fluttering and looking upward and careless of the world below; and he is therefore thought to be mad."¹² In Terrence Davies' THE LONG DAY CLOSES (UK 1992), a schoolboy's looking out the window and into the sky from a school somewhere in Liverpool transforms into a symphonic daydream and a source of elation more conducive to the genuine growth of his soul and intellect than is provided by hours grinding away in class and bending to the authorities and the peers. In any case, messing up with lights hanging from the wall and the ceiling leaves the teachers indifferent so long as they do not get to be direct witnesses of Eric's mischievous activity, in which case he gets punished with lines. Each teacher, however, except the history teacher, Mr. Creak, does get mesmerized once all the shields are lit and lured into revealing one letter of the combination to the school safe when hit with a rock. Mr. Creak, in turn, must reveal the year he was born in by assigning a historic battle to this year in his class. Like the letters revealed by other teachers, the year of birth of Mr. Creak changes each time the game is restarted. Moreover, because he is apparently very forgetful, Eric must write down the year of this battle on the blackboard for Mr. Creak to see it and only then would he utter the fourth and the final letter of the combination unlocking the safe.

The need to attend to history has resonances beyond this specific instance. Namely, the retro gaming experience, when put into a historical context, can provide inspiration for other domains in which we engage

12 Plato 1984, 456.

our creativity. Which other domains or disciplines we might revolutionize by opening them out at many different levels, this game may prompt us to ask ourselves. These questions are particularly worth asking during today's epidemics of illiteracy in the history and philosophy of science and arts. Decades in academia have convinced me that such illiteracy can turn even talented and hardworking individuals into generations of copycats and bandwagon opportunists.

Now, the link between the shields and the safe is odd and deserves our attention. As we have heard, for the safe containing the problematic report to be unlocked, Eric must light up all the shields on the school's walls and ceilings. In *BACK TO SKOOL*, a similar shooting of objects on the walls of the school unlocks the playground bicycle, a causal connection far harder to grasp, which is not even to mention that the bicycle is further needed to leap across the fence, enter the girls' school, release a mouse, steal sherry, use the sherry to get teachers back in the boys' school drunk, enter the now-open science lab storeroom, find a frog there, put it in a cup and drop it on the headmistress's head and thus acquire a key to the headmaster's safe containing the problematic report, a string of events that, as per my experience, makes the eyes of little ones light up with wonder, as if graced by an act of magic. Nevertheless, even the comparatively modest correlation between the shields and the safe in *SKOOL DAZE* is sufficiently ludicrous in itself, so much that it is justifiable only by the analogy of protection that both types of objects provide. I may even go as far as to muse over whether this cryptic connection can inspire us to observe it as a hats-off to analogical thinking, a big no-no in today's academia in spite of the fact that the most creative of ideas dawn on thinkers via strange passageways of analogies.¹³ Whatever the answer, such childish connections between impossible things can be a key to creative reasoning, to magic born out of these neuronal apparatuses.

Modest Means Can Lead to Great Outcomes

One of the magical aspects of *SKOOL DAZE* for the current generation of gamers is that it was squeezed within 48 kB of memory space, just a bit larger than the average email message today.¹⁴ Even its plethora of bugs became a

13 Uskoković 2020b.

14 Alldridge 2013.

source of amusement, typical of a work whose innovative nature is so pronounced that it has the liberty to eclipse many of its technical and content-related shortcomings. Neither are the limited lines of classroom dialogue a big source of distraction because they veritably portray the monotony and boredom of school life. Even the gawkiness of the character movements, incomparably less sophisticated than, say, Dennis Caswell's somersaults and robot turns in *IMPOSSIBLE MISSION* (Epyx, US 1984) from earlier that year, can be said to have a certain charm to it, matching the constrictive atmosphere in the school, where mechanization of the intellect and the physique is the goal.

Despite the modest means with which the game was created, it stands today as one of the landmarks of videogame computing. It demonstrates how “so much can be done with so little”,¹⁵ that is, how limitations in computational power due to a single 8-bit microprocessor on ZX Spectrum, only 48 kB of working memory, bitmap graphics, only about a dozen available colors and the infamous “color clash” limitation could be harnessed to produce a game that is more captivating than most games on today’s 64-bit computers with multiple processors, caches, registers and processing nearly a million times faster. This intrinsic minimalism of *SKOOL DAZE* invites us to consider how in any science or art, poverty can facilitate the derivation of groundbreaking concepts and principles. It would be, of course, overly simplistic to state that poverty *per se* drives the discovery of original concepts, let alone their testing and implementation in reality. Besides, as a former refugee and a survivor of the Yugoslav civil war of the 1990s, I know from direct experience how economic pressures can crush people’s dreams to gift something creative to the world. However, what is by no means preposterous is the idea that a lack of resources can force the creative mind to think outside the methodical norms of a resource-driven discipline. Very often, such deviations from the mainstream mental path can allow completely new solutions to existing challenges to be sighted, while, in contrast, an overabundance of resources can put the creative mind to sleep and turn it into an inert spinner of stale, paradigmatic ideas.¹⁶ In natural sciences and popular arts alike, substantial funding and access to expensive tools and a massive workforce may well lead to the perfection of old, proven concepts; however, it is not a coincidence that big companies and big studios often reach out to small, in-

15 Sharopolis 2019, <https://www.youtube.com/watch?v=EqAUWkoAKxl&t=479s> [accessed 7 January 2022].

16 Wu/Uskoković 2019.

timate settings working under dire resource limitations for ideas that may revolutionize their professions. Therefore, one of the key points that the immersive experience and conceptual innovativeness of SKOOL DAZE can instruct us about is the idea that meager resources necessitating economical approaches often turn out to be the drivers of innovative thought, whereas indulgence in wealth tends to put the brain behind the wheels of progress to sleep.¹⁷ This idea forms the crux of a broader philosophy of life from which this discourse has emerged.¹⁸

A few examples illustrating the benefit of poverty for the derivation of revolutionarily novel ideas can be mentioned here. Impressionists, for one, painting hastily, in a heartbeat, using sketchy brushstrokes and spontaneous composition, in tune with their meager resources, brought down the stronghold of the lofty academic realism of their times. In turn, however, once socially recognized, their artistic movement was abridged by their focus on painting the gatherings of rich people who had embraced the movement and quickly formed tight and exclusive social circles around it. This was not conducive to the flow of creative novelty and broader social propagation and it directly contributed to the downfall of the movement, which proceeded equally rapidly as its former rise. We might also think of how the headlong writing style of modernists, which was adjusted to the goal of “acquiring elevation in the destitution of modern man”,¹⁹ knocked down the house of cards of belletristic prose built in cozy Victorian clubrooms by the bourgeois social order and the gloved hands of wealthy writers and snooty rationalists. And so on. Which brings me back to my major scientific goal of demonstrating, as if through a magic trick of a kind, how immense the wealth of poverty can be, and how poor, deep down, riches truly are.

The Antiauthoritarian Metamessage

Although hermeneutics of text rooted in the decipherment of secret messages and metamessages woven into it can be considered archaic and outdated for the last half a century at least, revisiting abandonware games calls

17 Uskoković 2020c.

18 Uskoković 2019b.

19 The Nobel Prize in Literature 1969, NobelPrize.org, <https://tinyurl.com/mnda5v5r> [accessed 7 January 2022]. The quote was used to describe the literary style of Samuel Beckett.

for abandoned approaches in their semantic analysis. Metamessages, here, are particularly interesting for the analyst, not only because they transmit holistic views of the overall present and past of the genre to which the relevant work belongs, but also because they can be more powerful than the messages atop of which they are built and disseminated. The message may sometimes be trivial even as its corresponding metamessage touches the greatest depths of the human psyche. In art, this can be said of Duchamp's urinal, of James Joyce's *Ulysses*, of Jackson Pollock's drip paintings, of Charlie Parker's sax solos, of Serge Gainsbourg's early seeds of trip hop and of Schoenberg's seminal atonal pieces. Jean-Luc Godard also exemplifies an auteur whose work owes its greatness primarily to serving as a critique of cinema rather than to its ability to immerse the viewer in a captivating cinematic experience. In other words, the metamessages of his movies have been far more significant than their direct messages.²⁰ Works conveying a powerful metamessage may not deliver to their consumers and interpreters as momentous empathetic content as mainstream art does, but they do embody resonant critiques of the art of their times and can for this reason be classified as major pieces of art.

Classroom teaching also sends out sundry metamessages in addition to the explicit messages pertaining directly to the content of the lecture. Gregory Bateson has pointed out that "Professor X gets up at the blackboard and lectures about the higher mathematics to his students, and what he is saying all the time is 'dominance, dominance, dominance', and Professor Y stands up and covers the same material, and what he is saying is 'nurturance, nurturance' or maybe even 'dependency, dependency', as he coaxes the students to follow his argument."²¹ Thus, sadly, new generations who will demand the same obedience to authority as was demanded of them are crafted, even as, normally, they are unaware of these demands because they are emitted and absorbed by the subconscious spheres of their psyches.

SKOOL DAZE abounds with metamessages, which is not to say that any of them were deliberately incorporated into its semantic substratum by the game developers. Rather, it should be obvious to anyone who has ever created any art that the best art is art that surprises even the artist, not just the audience, with messages discoverable therein. As a result, the hermeneutic structure of every work of art is multifaceted, with different meanings ap-

20 Uskoković 2018.

21 Bateson/Bateson 1987, 33-34.

pearing to different interpreters inspecting it from different angles and using different tools for its dissection. As videogames are a subset of the visual arts, this principle applies to them too. The role-playing, open-world nature of games such as SKOOL DAZE is another factor contributing to the multiplicities of meanings discoverable during their interpretation, for depending on how the game is played, different perspectives on the meaning of the game will be revealed to the player.

A key metamessage conveyed to me by SKOOL DAZE is that rebelliousness is necessary – unjust laws of schooling must be broken if a member of the academic order is to walk through its hallowed halls and be deemed a success. The need for rebellion is evident when we consider that for the progress in a system or body of knowledge to be fostered, its deficiencies must first be recognized and a means of fixing them proposed²². From this elementary standpoint, any innovative stance constitutes a form of rebellion against the old state of affairs. Conversely, rebelliousness can be proposed as basic grounds for innovation in science and art. This explains why the more innovative the people, the greater the barriers placed before them by the guardians of the old order. In advancing humanity proactively, however, a high price may have to be paid in the form of repeated penalization by the authorities, a fate not so far from Eric's in this game.

Additionally, every act aimed at increasing the physical order in the universe is an act of rebellion against the second law of thermodynamics, a fundamental law of nature. Indeed, for any perceptual detail to be recognized by our senses, it must counter the anticipation of our constructivist sensual apparatuses²³. On top of this, creative behavior can be said to be all about ceaselessly breaking habitual anticipation of the performer's next move. In fact, what the world, locked in the states of exorbitant conformism and engrossed by the spirit of followers rather than groundbreaking innovators, needs today is spirits who'd shake off this intrinsic lethargy and somnambulism by urging all to revisit the devastating effect that our socially predisposed propensity to act in accordance with our habits has on the creativity of our being in the world. Every communication, be it gestural, aural, sensual or verbal, has to rely on convention to convey its meanings, and yet it must break these very same rules of convention if it is to be inspirational and creative. Hence, not only may it not be a coincidence that the words

22 Uskoković 2019c.

23 Uskoković 2011.

“evolution” and “revolution” are lexically similar, given that revolution of one form or another stands at the root of every evolution, but we may now also ponder the move “from revolution to revelation”, as Neil Tennant of the Pet Shop Boys sang with his characteristic ballroom solemnity,²⁴ for an upheaval in the mental realm paves the way for inventive insights and ideas.

The game discussed here, however, has many aspects, and this multifaceted nature of it is one of the reasons for the immenseness of its importance, if not influence, on the videogame culture in its formative years. It is at once a graphical adventure, an interactive role-playing game and a partial open-world life simulation with the elements of an arcade and a trivia. It has a goal, but it need not have it, as it can absorb the player into playing for the play’s sake; hence its sandbox game character. One might play to fulfill the objective, which is to retrieve the problematic report from the safe and then shut down all the flashing shields, but one can equally play to achieve a high score or to survive a day without receiving more than ten thousand lines. Or one might simply play for the pleasure of immersion in a virtual reality. That is, you are “able to ignore the main goal and simply entertain yourself by just moving around the school messing around and causing trouble.”²⁵ One user noted, “What’s interesting is that it was still one of my absolute favourite games, despite me clearly having no idea what I was supposed to be doing. That’s kind of brilliant, really. To create a gameworld that is so immersive and entertaining that the actual gameplay objective is literally irrelevant.”²⁶ Here, randomization of the side character movements and of the sequence of events in the school has been a key factor in rendering the game playable from this immersive life simulation standpoint, once again accentuating the merits of chaos and entropy for producing a lifelike animation that does not easily get boringly repetitive and predictable.

Further, as expected from a game descriptive of an educational setting, SKOOL DAZE does have an educational side to it as well. In addition to the rather sparse textbook information aired didactically during the classes, the game provides an opportunity for children at the elementary school level, who usually have their entire curriculum within a year delivered by a single teacher, to learn what it feels like to attend middle schools and high schools, where one must move back and forth between different classrooms and

24 “My October Symphony”, by Pet Shop Boys (*Behaviour*, Parlophone, UK 1990).

25 Retro-Sanctuary, <https://tinyurl.com/2vvpryar> [accessed 2 January 2022].

26 Whitehead 2011a.

each subject is taught by a different teacher. For example, when SKOOL DAZE came out in 1984, I was an elementary school student and playing this game was a unique way of learning how daily school life was structured for older children. In that sense, SKOOL DAZE reminds of a notable game released a year later, in 1985, VERKEERSRALLY (Radarsoft, NL 1985), which puts the player in control of a car driver who must drive around a large city in search of missing transmitters and is simultaneously being taught the rules of traffic.

This plurality of meanings, characteristic of all great works of art, is also evident from the fact that in many respects SKOOL DAZE is a game for children that is not really for children. On one hand, with emanations of violence lurking behind each corner, I consider SKOOL DAZE to be an authentic portrayal of the experience of attending elementary schools in the 1980s in my hometown of Belgrade, Yugoslavia. On the other hand, as a parent playing this game nearly four decades later with two youngsters of elementary school age, I find the brutality of the teacher and classmate characters in the game unbearable for their little brains. Playing the game with them brings about a worry that they would pick some behavioral cues from it, which solidifies my conviction that no parent today would want their children to attend a school like this. All the while, however, I have known that this contrast between affinity and aversion can cause great affection in the player, just as music that simultaneously shocks and soothes can uplift the listener much more than its one-dimensional counterparts can.

Graphic Innovation and Open-world Experience

Another aspect where the game was unprecedentedly innovative for its time comes from its simultaneous portrayal of different events in the school by allowing for a cross-sectional view of the building, so that the player can see what goes on in multiple classrooms at once. Not only did the game offer a relatively smooth side-scrolling experience, but the perspective at any given spot resembled that of a comic strip where action could be observed in multiple frames at once. Sometimes the events in rooms other than that occupied by the protagonist need the player's attention, as is the case with Mr. Creak's potentially revealing his birth year, and sometimes they might directly affect the fate of the hero, as, for example, in the case of Boy Wander's accidentally lighting up a shield, Einstein's heading over to the headmaster to reveal Eric's plans or the headmaster's discussing Eric's fate

with another teacher in a remote office. This placing of multiple events into a single view without artificially splitting the screen, as in *SPY VS. SPY* (First Star Software, US 1984), *ALL RISKS* (Radarsoft, NL 1986), or *THE YOUNG ONES* (Orpheus, UK 1986), resembles the revolution introduced to the world of cinema by Jean Renoir in *THE RULES OF THE GAME* (FR 1939). It should be noted that the invention of this style, based on deepened perspective, was also owed to a spirit of rebellion, specifically to Jean Renoir's rebelling, implicitly, against his father's, the famous painter August Renoir's, obliteration of the depth of field in his late paintings.²⁷ This graphic aspect of the game was, in fact, so innovative that it would be some time before it was replicated, first in a game such as *THE GOONIES* (Datasoft, US 1985) and later in strategies such as *LEMMINGS* (DMA Design, UK 1991) or *WARCRAFT: ORCS & HUMANS* (Blizzard Entertainment, US 1994), although it is still not often encountered in mainstream games, especially not in the indie role-playing genre. *SKOOL DAZE* also preceded David Crane's *LITTLE COMPUTER PEOPLE* (Activision, US 1985) as the seminal virtual-dollhouse life simulation game, by providing a cross-sectional view of a building where all the action took place. Primitive cross-sectional views of a house where the character moves were used in some earlier games, such as *BRISTLES* (First Star Software, US 1983), *GHOST CHASER* (Artworx Software, US 1984) and *MABEL'S MANSION* (Datamost, US 1984), but with its 3D perspective, fully furnished rooms and realistically drawn stairs, where one could even sit, *SKOOL DAZE* made it unmistakably clear to the player that that player is inside a house rather than in a random platform setting.

The game thus presented a giant leap in terms of game composition and graphic structuring compared to earlier prototypes of so-called nongame games, not only the simplistic ones such as *ALIEN GARDEN* (Epyx, US 1982), *WORMS?* (Electronic Arts, US 1983) or *LIFE* (Stack Computer Services, UK 1983), but also the more objective-driven role-playing ones such as *ULTIMA* (California Pacific, US 1981), *SWORD OF FARGOAL* (Epyx, US 1983), or *MURDER ON THE ZINDERNEUF* (Electronic Arts, US 1983). With the simultaneous focus on multiple characters and their comparatively elaborate interaction, the game was a step up from the less technically sophisticated role-playing games of its day, including *BELOW THE ROOT* (Windham Classics, US 1984) and *ALICE IN WONDERLAND* (US 1985) as the two sole interactive adventures by

27 *VOYAGE À TRAVERS LE CINÉMA FRANÇAIS* (MY JOURNEY THROUGH FRENCH CINEMA, Bertrand Tavernier, FR 2016).

Windham Classics, MAD DOCTOR (Sparklers, UK 1985), FRANKIE GOES TO HOLLYWOOD (Denton Designs, UK 1985), RAGS TO RICHES (Melody Hall, US 1985), THE ROCKY HORROR SHOW (CRL, UK 1985) and Chris Hinsley's Wally Week series, including PYJAMARAMA (Micro-gen, UK 1984) and EVERYONE'S A WALLY (Micro-gen, UK 1985). Given this innovation in character multitasking embellished with an underground culture caricature, SKOOL DAZE can be even considered a bridge between these old-school role-playing adventures and the LucasFilm point 'n' click gems whose production was well underway and would take off a few years down the road with the nonlinear SCUMM masterworks of MANIAC MANSION in 1987 and ZAK MCKRACKEN AND THE ALIEN MINDBENDERS in 1988. For the latter, a particularly obvious allusion to SKOOL DAZE came in the form of a series of airplane scenes where the stewardess repeatedly tries to put Zak back in his seat, but he must clog the toilet sink, flood the restroom, blow up an egg in a microwave oven and rob the overhead bins to complete the task. Still, what separates SKOOL DAZE from all these various adventures is the sense of monotony and spatiotemporal confinement, which authentically portrays school life and thus serves as a witty criticism of it. In fact, in engaging the player in the tedious daily task of sitting in a classroom and listening to teachers' tirades, the game can be considered a precursor of the first massively popular life simulation game, namely THE SIMS (Electronic Arts, US 2000).

One of the most interesting ways in which the game revolutionized the concept of the videogame was by providing a partially open-world experience portraying an everyday setting for many users. Not only could characters be renamed, a new feature at the time, but one could also write on the blackboard at will and thus direct one's fate. One example of this is when Eric must test different combinations of letters by writing them on the blackboard to unlock the safe, which he either succeeds in or gets to be snatched on by Einstein for this misdeed and then penalized by the teachers. All of this provided some of the earliest instances of user-generated content in videogames, albeit rudimentarily. The choice of a school as the environment for this open-world concept is particularly interesting, as schools and educational institutions in general can be counted as traditionally amongst the most closed social systems, and in need of opening. This setting makes this pioneering effort to create an open world in a computer game extraordinary, especially because of its emphasizing the need for resistance to and rebellion against everything bad that schools epitomize: the authority of the teachers, the frustration of the child in confinement, the imposition of

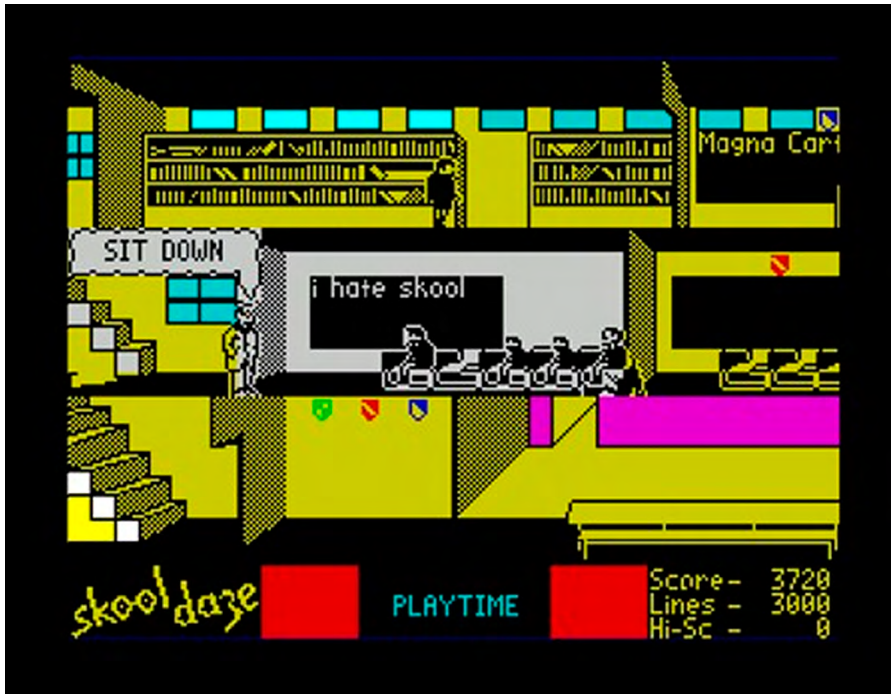


Fig. 1. A screenshot from SKOOL DAZE, showing Eric in class, sitting below a typical blackboard sign. The bell has just rung for playtime and the class is over. Eric, who had been told to sit down, is about to stand up. The science teacher, Mr. Rockitt, need not be listened to anymore.

creativity-draining behavioral norms, the enforced uncritical thought, the rewarded sycophancy, and so on. Even more importantly, however, going back to the overarching metamessage that tackles the state in which the videogame industry of the time found itself, it is of special importance for the discussion of conceptualism in science and art to note that SKOOL DAZE is a demonstration of the merits of mischievousness underscored by the grand mischievousness of its creators. In other words, an overt act of rebellion against the trends in game-making of their time is woven into the fabric of this particular game. As with the best works of art, therefore, the message, in this case the necessity of rebellion, makes itself apparent at different structural levels of the virtual world, both explicit and implicit, cognizant and subliminal.

In light of these subliminal messages, I have wondered if a boy who played this game in his pre-teenage years might have been influenced by it

later in life, without necessarily recognizing the source of his dislike of academic authority (Fig.1). Could SKOOL DAZE, with its technically sophisticated depiction of the troublemaker as a hero in an academic setting, be held responsible for his inclination for anarchist philosophies as an academician and for launching him on an academic career marked by repeated struggles with authority? Whether the answer to this question is affirmative or whether the game simply reflected sentiments the boy already harbored in those pre-teenage days is impossible to untangle.

Lo-Tech Aesthetics and Its Failings in Real Life

The development of SKOOL DAZE started off small and ended in the same lo-tech spirit. David Reidy wrote the code on paper, “using the raw numbers of machine code rather than the friendlier assembler language [*sic*]”, and Helen Reidy typed it into the computer. Meanwhile, Keith Warrington, who did not have a computer at the time and did not even know what pixel was,²⁸ drew the black-and-white graphics on paper too; only later would they be transformed into a pixelated space. However, like many ideas unprecedentedly advanced for their times, the indie graphic adventures, like SKOOL DAZE, were destined for economic failure, a fate shared by the Reidys. Around the same time, across the Atlantic, in Boston, another short-lived company that was focused on innovation in the role-playing genre, Windham Classics, became defunct, a year or so after releasing its first game, the highly novel graphic adventure BELOW THE ROOT. These fiascos reflected the sentiment aired by Chris Crawford in November 1984, only a month before the release of SKOOL DAZE, soon after he had been laid off by Atari in the wake of the aforementioned videogame recession of 1983: “I will point out the sad truth. We have pretty much passed the period where hobbyists could put together a game that would have commercial prospect”²⁹.

And so, thwarted by the poor proceeds from the game and with hopes of a career in videogame design dwindling away, the Reidys would soon move to rural Shropshire and Keith would buy a second-hand motorbike from the proceeds from the game.³⁰ The material for the second sequel, ERIC AND HAY-

28 Green 2010.

29 Darling 1985.

30 Green 2010.

LEY'S DECATHLON, was lost in the move, just the way Ryan Best's LGBT classic GAYBLADE (US 1992) disappeared too, like a bean in a Bunco Booth sideshow. They would get "real jobs", as David pointed out later. We need to chew over the tough idea that hobbies and small-scale settings may be the best ground for the discovery of new concepts, but their schemes rarely prove commercially viable. For, the dilemma of whether opting for research and development exploring totally new paths is by default going to lead to financial failure is likely to remain ciphered for as far as we could see. Whatever the answer, small settings will continue to be the best incubators of new directions in almost everything. As Steve Albini noted, "I don't think that there's anything holy about bands being small and inexperienced, but that's obviously where new ideas are going to come from, from people who have never played music before",³¹ a rule of thumb that could be readily translated from the musical domain to science, art and videogame industries without losing any of its veracity.

However, if a new and original concept is to expand in popularity and hit the mainstream, it must resonate with a critical mass of creatively capable followers, who will coalesce around its nucleus and help it crystallize into a whole new movement. We can recognize today that SKOOL DAZE was a prime role-playing adventure that emerged from the defiant postpunk counter-culture of the early 1980s and carried a subliminal political message, which was unprecedented for the videogames of its day, but it did not form the nucleus for the creation of a corresponding new game genre. The inability of its creators to achieve this transition confirms the premise that as per one of the key metamessages of the game, creativity is antiauthoritarian *per se* and seldom associated with the management skills needed to facilitate the expansion of an idea into mainstream territories. Simultaneously with this failure to deliver an impactful cultural momentum, the whole videogame industry and programming world began their long slide from antiestablishment and subversive to submissive and compliant with the neoliberal economic principles where "the public gets what the public wants"³². And yet, SKOOL DAZE marks a unique moment in the timeline of the development of the videogame industry, when gaming could have taken a different turn and instead of becoming a bleak commercialized venue satisfying the tastes

31 Smith-Lahrman 1993.

32 "Going Underground", by the Jam (*Going Underground / Dreams of Children*, Polydor, UK 1980).

of politically brainwashed mainstreamers who would want ever more of the Great Giana Sisters, Pooyans and Turricans, the public could have been graced with more Frankies wanting to become film stars (FRANKIE GOES TO HOLLYWOOD) or be on the top of the chart list (TO BE ON TOP, Rainbow Arts, GE 1987); more Gonches and Hollos listening to Walkman during class (GRANGE HILL, Binary Design, UK 1987) and Rockin' Rodneys looking for the lost cassette tapes (GHETTO BLASTER, Taskset, UK 1985); more Wallies walking in their sleep in search of alarm clocks that they forgot to wind before going to bed (PYJAMARAMA); more patients having to connect dreams with reality to escape mental hospitals (THE INSTITUTE, Med Systems Software, US 1981); more poster gluers fighting off gnomish hallucinations from inhaling paint vapors (POSTER PASTER, Taskset, UK 1984); more graffiti artists evading flowerpots thrown on their heads (GRAFFITI MAN, reLINE Software, GE 1987); more tappers hitting pub-crawlers with pints (TAPPER, Marvin Glass and Associates, US 1983) and stooges tossing pies at posh diners (THE THREE STOOGES, Cinemaware, US 1987); more Bozos staggering through the night and seeing pink elephants after visits to Gibbo's Joint (BOZO'S NIGHT OUT, Taskset, US 1984); more Andy Capps on a search for booze and kisses (ANDY CAPP: THE GAME, Blitter Animations, UK 1987); more Hoagies using toilet bowls as time machine conveyor belts (DAY OF THE TENTACLE, LucasArts, US 1993); more bastards rating high on their weeeometers, fartometers, drunkometers and smellometers (HOW TO BE A COMPLETE BASTARD, Sentient Software, US 1987); more Biff Barfs for TV hosts and physics department chairs and Barbara Bimbos from Airhead, California with computer programming as a hobby for guests (LEISURE SUIT LARRY GOES LOOKING FOR LOVE, Sierra On-Line, US 1988); more Basildon Bonds typing jokes into a computer while steering clear from flying Blunderwomen (THE ADVENTURES OF BOND... BASILDON BOND, Probe Software, UK 1986); more bar-patron-chased paparazzi taking photos of flirtatious models detained by Mr. Angrys (MR. ANGRY, Addictive Games, UK 1985); more Dustys flashing eyebrows in Lizard Breaths (IT CAME FROM THE DESERT, Cinemaware, US 1989); more Daglets playing in Tonetowns (TASS TIMES IN TONETOWN, Interplay & Brainwave Creations, US 1986); more jobseekers skating on leaves on their ways to interviews (INTERVIEW, Andromeda Software, UK 1984); more Willy Beamishes pulling down the school principal's wigs with their pet frogs (THE ADVENTURES OF WILLY BEAMISH, Dynamix, US 1991) and Mikies dodging the teachers' flying fake teeth (MIKIE, Konami, JP 1984); and, last but not least, more friars helping others find objects they have lost, from carrots to clarets, to find, symbolically, the object

they, themselves, have lost, that is, the Bible (FATHER TUCK, Mawhinney & Flynn, UK 1996). But this did not happen and what lies inscribed at the heart of this seminal videogame may help us understand why.

Parallels with Academic Multiverse

This real-life story of the development of SKOOL DAZE, from lo-tech enthusiasm to commercial failure and professional slump, resonates with the adventures of a boy, who had played this game as a child, as he moved through academic hallways, classrooms and labs for the past four decades, during a time when he was not only a student and a scholar, but also an instructor and a mentor at a number of private and public universities. Like the Reidys' project, the lab for this boy's work was a mom's and pop's operation that churned out scientific *piatti poveri*, i. e., poor man's dishes, with means that were sometimes modest and sometimes sumptuous. At its best, the focus of this science for the soul has been on the creation of new concepts, whenever possible; hence its being inspired by conceptual arts. Alas, in this age of the increased industrialization of academic science, where the scientist has become an entrepreneur and derivative approaches that merely confirm the paradigmatic worldviews and augment the efficacy of methods already in place are prioritized over the exploration of fundamental new ideas, this has led to a failure and the closure of the lab. Caught in the dirty web of politics, which is these days prioritized over the quality of the science and teaching, the innovator is excommunicated, dismissed from this edifice where toeing the line is all that counts while rebels against the corruptness of this order are being ruthlessly weeded out.

If the reader thinks this discussion is already too confessional, be prepared for an even harder catapulting of rocks at the walls of academia,³³ like Eric's hitting of the school shields. The boy remained true to his desire to stay away from the departmental and collegial micropolitics because all he ever wanted in academia was to remain free like a bird, unattached to petty clashes of ego and living for praise from the heavens above, expecting instead no accolades or rewards from human magistrates or committees. Of course, basing one's professional stances and methods on unconditional, infinite love in a system run on hierarchy, stringency, conditioning, exploitation and fear can

33 Uskoković 2019d.

only result in one's reliving the fate of that good old miser, all along with His persecution, trial and liquidation (John 18; 19), in the midst of which one may find oneself spinning a string of thoughts that chimes with the words of the comic extraterrestrial character ALF: "I came from a distant galaxy on a special mission, to study your species and perform experiments. They sent me out in a space capsule. Now I live in a trashcan by your garage."³⁴

It did not take the boy long to conclude that being in academia is not so different from playing Eric in a game of SKOOL DAZE: one can play by the rules and respect everyone, but bullies, tearaways and tattletales will gradually drag one down and have one expelled, so the only way to succeed is to be a rebel and fight, as Bhagavad-Gita would instruct (Gita 2:18; 2:37–38). A similar message is contained in a later open-world ZX Spectrum classic, THE GREAT ESCAPE (Denton Designs, UK 1986), where the prisoner-playing protagonist loses his morale regardless of whether he breaks the rigid rules of the concentration camp and is sent into solitary confinement for doing so or chooses to play safely and obediently, as if on autopilot; the only way for the protagonist to retain his morale is to contrive an escape from this life stockade. However, while in this later game morale could be restored when something useful is discovered or performed, the lines with which the authority punishes the player in SKOOL DAZE cannot be erased; it is only a matter of time, whether the boy plays it safe or plays it well, until he is excommunicated. The boy knew that sooner or later, he would be struck by a fate similar to that of a Montenegrin political dissident fond of "romantic rebelliousness", who cited "his romanticism, his honesty and his lack of personal ambition"³⁵ as reasons for his expulsion from Yugoslav politics, imprisonment for almost a decade and the prevention of the public dissemination of his views for almost four decades. The boy also stepped on the toes of oh-so-many Titoesque autocrats and members of the new breed of academic mobsters; their revenge for independence in action and thought has been brutal. Even as he knew what sort of punishment lay in store for him, he could not but justify his will to speak truth. Long ago he had resolved that he would be always a poet and never a politician; that he would always look up to prophets, not presidents;³⁶ and that he would speak truth

34 ALF S01/E26 (US 1986).

35 Russell 1995.

36 "Birdland", by Patti Smith, in SONG TO SONG (Terence Malick, US 2017), 01:26:20. Smith sings different lyrics than in the version of the song from *Horses* (Arista Records, US 1975): "The cross is just the true sign of a tortured woman standing there in the doorway,

and truth only and never turn to a cunning can that acts for the personal benefit alone. And since “poets, who have always been hated and feared by tyrants because they alone dare to freely say what is true, are sent down from heaven by the Gods to relieve the sufferings of mortals”,³⁷ he vowed that he would always, regardless of the consequences, disseminate truth and beauty across the parched podia of academia, with religious zeal and fanaticism. In these efforts, he knew he would always be, deep down and like Eric, alone, finding comfort in the words of the Bar-Kays saxophonist Harvey Henderson in Mel Stuart’s movie *WATTSTAX* (US 1973), later sampled in a Public Enemy song: “Freedom is the road seldom traveled by the multitude.”³⁸ The making of *SKOOL DAZE* epitomizes one such search for freedom, within the “desolation row”³⁹ of a small and intimate social setting rather than through massive corporate boards and commissions.

The attitude of the creators of *SKOOL DAZE*, evident in every detail of the game as well as in its overall spirit, has nested inside me ever since I played that game obsessively and ruminated about it endlessly in my spare time as a child. Still, through many a restless night, I wonder why I continue to be fascinated with this classic game and why “skooling” in terms of teaching students the merits of breaking the rules – be they of language, of communication, or of any other form of conduct or mental routine – remains inscribed on my own abstract classroom blackboard. Is it because neither I nor presumably greater old-school gaming enthusiasts than me⁴⁰ were ever able to shut down all of the flashing stars, pardon shields, and come to the end of this classic sandbox game? Is it because this exceeding level of difficulty of the game provided a subliminal impetus to make the tests I set as a teacher impossible to get a perfect score on, which irked today’s gamers, who require everything be playable and easily accomplishable, to such an extent that they catapulted me into a trashcan rather than to the apex of the academic pyramid? Is it because during those skool daze my eyes flashed with an honest resentment at an educational system wherein “the

dreaming of, dreaming of the prophet. They don’t want their children to be presidents but prophets, prophets, they’re dreaming of their children as prophets. They’re gonna come in, run through the fields, dreaming of animation”.

37 Wigglesworth 1999.

38 “Show ‘Em Whatcha Got”, by Public Enemy (*It Takes a Nation of Millions to Hold Us Back*, Def Jam, US 1988).

39 “Desolation Row”, by Bob Dylan (*Highway 61 Revisited*, Columbia, US 1965).

40 Alldridge 2013.

pupil is 'schooled' to confuse teaching with learning, grade advancement with education, a diploma with competence, and fluency with the ability to say something new; his imagination is 'schooled' to accept service in place of value... for most men the right to learn is curtailed by the obligation to attend school",⁴¹ as Ivan Illich pointed out? Is it because my aim in schooling is, like Illich's, to deschool others, to liberate them from the shackles of dogmas that stifle the spirit, to erase all the knowns and musts and certainties and install infinite wonder in their place and then spray-paint a question mark all over it? All these questions and more remain, to make sure that this wheel of inventive ideas churning inside me does not stop spinning.

Regardless of it all, the walls that institutionalized knowledge builds around itself must be crushed. The Ivory Tower must be toppled and a more humane order erected on its former foundations. All the teachers training archers with arrows aiming for the heart, lined up as on the cover of 10,000 Maniacs' *In My Tribe*, should fall from the turrets of this castle and into the stockade, to make room for undefiled spirits, like Prince's Cynthia Rose, a schoolgirl who wore "different colored socks", who slurped "butterscotch clouds" for breakfast and who "had a happy face, just like the one she'd draw on every wall in every school".⁴² If this eagerness to shake things up and break them down, calmly and benevolently, explains my fondness for the plethora of metaphors discoverable in this gem of the early-day computer games that SKOOL DAZE is, so be it. For now, in the name of the wall-crushing ambitions aired here, lest this essay on SKOOL DAZE, a game where almost every utterance on the blackboard is grammatically incorrect, remain incomplete, I will let my own kin tell a story in preschool language fitting the occasion. It will take us for a moment beyond the grimness of the world of SKOOL DAZE and into brighter and more innocent semantic spaces:

Skool daze was canceled and then it was school day and then the teacher comed and she was school and said hey I so happy I here kids and she gave you happy card and then the teacher sat on the chair and then he slept and he slept daytime and nighttime and even sunset and every day and he was too, too tired and went to sleep again and he transformed to a clock and children were doing fine and teacher was still sleeping and then he slept all night until daytime and then he transformed into a nothing and to you

41 Illich 1972, 2-3.

42 "Starfish and Coffee", by Prince (*Sign o' the Times*, Paisley Park Records, US 1987).

and to two teachers and then to skool kid and nobody was her teacher and then the teacher said school is canceled yeah but it was not canceled and there was a meteor and he tried to save the world but he couldn't and meteor was trying to destroy the whole universe and whole earth and ice-cream stores and houses and cars and city and plants and houses and cars and flowers and then children saw meteor and it was crashing and was covered with rocks and with purple slime in it but then there was friends there was family there was hope and there was heart that is the end.⁴³

Lest the earth tilt from its axis and this paper fall into the stratosphere, here is a simpler story by her brother, too, on the same topic of skooling and its ordeals:

I'm near the swing. Stories are always happy.

Somewhere in the midst of these lines, I know, lies the key that unlocks the heavily guarded gates of the academic mansion run by maniacs. This is how the boy departed, with this key in his hands and a fresh kiss on his inquisitor's lips⁴⁴, having drifted into a dark night, way beyond the dungeons and arrow slits of the Kafkaesque fortress of academia, vowing to find brighter study halls and homerooms in playgrounds⁴⁵, nature⁴⁶ and dreams⁴⁷. He has been free ever since.

Puny Is the Way Leading Back, to a Paradise Lost

One final reminder from SKOOL DAZE, related to the ideology of poverty touched upon earlier, concerns the merits of minimalism. Compared to modern operating systems and videogames, which strike the users with stu-

43 Evangelina W. Uskoković, personal correspondence, 2020. Evangelina's story is a mélange of impressions from her own school days and from playing two of the arguably greatest games released originally for ZX Spectrum and Commodore 64, respectively, namely SKOOL DAZE and MANIAC MANSION.

44 Dostoyevsky 1880, Part II, Book V: The Grand Inquisitor, 322–344; von Foerster 1972. von Foerster retells the story of the Grand Inquisitor at the end of his paper on the nature of perception and puts it in a pedagogic context.

45 Uskoković/Uskoković/Uskoković 2022a.

46 Uskoković/Uskoković/Uskoković 2022b.

47 Uskoković/Uskoković/Wu/Uskoković 2023.

pefying showers of stimuli and provide colossal spectacles for the senses, SKOOL DAZE and many of its minimalistic brethren from the pre-ELECTRIC DREAMS (Virgin Films, 1984) era of computer games, such as IN SEARCH OF THE MOST AMAZING THING (Tom Snyder Productions, US 1983), LAZY JONES (Terminal Software, UK 1984), BELOW THE ROOT, ON-COURT TENNIS (Activision, US 1984), ONE ON ONE (Electronic Arts, US 1984), DUCKS AHOY! (CBS Software, US 1984), DONALD DUCK'S PLAYGROUND (Sierra, US 1984), PYJAMARAMA OR ELITE (Braben & Bell, UK 1984), to mention but a few favorites, show how much more can be accomplished with so little. That a simple change to the static picture on the screen after hours or days spent playing a textual adventure such as THE HOBBIT (Beam Software, AU 1982) and trying desperately to make strides in it can to this day produce a thrill that instantly colors the room with the shades of mystery may seem unbelievable to a younger generation of gamers, but there is an incredible richness, a treasure worth retrieving, buried within these impressions.

In fact, the thrill of finding out that beneath the surface appearances on the screen a whole world of codes and symbols lies hidden and awaits discovery, shimmering before a child's eyes like a sunken treasure, can be classified as an authentic religious experience. In a game such as HACKER (Activision, US 1985), therefore, the protagonist's harnessing a mysterious perceptual unit subject to constant malfunctioning in order to navigate subterranean channels in search of pieces of a document that, assembled, may help save the world represents an apt analogy between the hacking experience and the workings of a religious mind. After all, when we descend into the realities beyond the surface appearances, be they virtual or corporeal, is when we encounter the metaphysics of mystery, at the doorstep of which all the world's religiosities come alive. This is when the cognizance of God, that synonym for the mysterious depth dimension in our lives, may enter the juvenile mind, notwithstanding that the traces of the videogame's contribution to this grand awakening of a religious mind will likely disappear as the child grows older. Although interest in this connection between videogames and spirituality has hibernated for a very long time, almost disproportionately to the proliferation of ethereal, supernatural and godlike characters in games, a wave of curiosity about this topic has swept through academic literature in recent years,⁴⁸ giving hope of a new day in a new world nearing. Exactly four decades since the idea about SKOOL DAZE was

48 Heidbrink/Knoll/Wysocki 2015; Storey/Storey 2019; Bosman 2018.

born and since Mark E. Smith “became a recluse and bought a computer, set it up in the home, elusive big one, on the screen saw the Holy Ghost”⁴⁹, pieces of the puzzle portraying the link between religion and videogames seem to be starting to fall into place.

And yet, the child who once delved into this serene world of über-simplicity, dancing mously between games to Rob Hubbard’s minimal chip-tunes such as the high score sequence from *MONTY ON THE RUN* (Gremlin Graphics, UK 1985)⁵⁰ or the themes from *CHIMERA* (Bits Studios, UK 1985)⁵¹ and *TRANS-ATLANTIC BALLOON CHALLENGE* (Maxwell Technology, UK 1987)⁵², became lost in the thicket of codes and symbols, and now the child finds itself in the “shadowed forest”⁵³ of complexities that require endless clarifying, ordering, classifying and rearranging. The child has turned into a man, or is that indeed the case, the man asks, when he is a child in front of the computer screen, which brings us back to the words of Jon Deaux in the opening quote. Still, is a return to the wondrous simplicity of childhood what is required to save the world? What if children were to instruct their teachers how to relearn the art of play, so that the teachers might approach life as if it was a game instead of numbing children by imposing adult norms upon them? Just as children and animals learn about life by playing with creatures and objects around them, so too should our attempts to unravel the mysterious threads drawn all through the physical reality, not known to man yet or buried deep within the dust of the past, be savored with the spirit of a child. We may have lost sight of this holy stance because we inhabited for too long the dry terrain of prestige-driven adulthood, but could it be reinstalled in us by computer games?

Mine is the privilege of being the first generation able to replay early computer games with a sense of nostalgia that is completely new to humanity. In this process, millions of neurons can be switched on and their firing patterns may replicate those that they danced to when I was a child and magic would happen in my mental microcosm in an instant. One thing about the future that I am prompted to observe impromptu, on the fly, by this abstract immersion in the past is that future videogames will be a

49 “Eat Y’self Fitter”, by The Fall (*Perverved by Language*, Rough Trade, London, 1983).

50 Pixel Retro 2017, <https://youtube.com/watch?v=Q2EK5DGdDMU> [accessed 9 March 2023], 03:21:50.

51 Pixel Retro 2017, <https://youtube.com/watch?v=Q2EK5DGdDMU> [accessed 9 March 2023], 00:49:36.

52 Pixel Retro 2017, <https://youtube.com/watch?v=Q2EK5DGdDMU> [accessed 9 March 2023], 04:54:36.

53 Alighieri 1971, canto I, verse 2.

great opportunity to marry science and art, a linking to which I have been dedicated since reading Hermann Hesse's *Glass Bead Game* as a 17 year old. Mind you, I still dream of a future where the layman would be literate in natural sciences and technologies and arts and humanities all at once and where news from disciplines merging them in the most unthinkable ways would provide the major content for the mass media. The core of my academic work today is directed toward driving humanity in this direction and I see computer games as an indispensable medium for achieving this goal.

We know well that videogames integrate science, at the levels of both hardware and software, for which they can act as a superb testing device. However, their artistic potential is often ignored or disputed, usually because of a little interest by the designers to provoke empathy in the players.⁵⁴ Yet, games, which could be defined as structured entwinements of contest and play, often do exhibit artistic value. The paradigmatic example is chess, possibly the closest thing that humans have to the elusive combination of science and art that is the Glass Bead Game, but also the game that an artist such as Marcel Duchamp considered more aesthetic than the visual arts.⁵⁵ Should collaborative art forms increase in prominence and should human consciousness evolve away from seeking triumph for the ego and toward broader, more holistic and selfless perspectives, games of the future could increasingly be endowed with features of the arts – not the purely expressive only, but also the classical and the romantic, all along with their traditional emphases on beauty and harmony. If I have spent a lifetime pursuing the dream of sailing the vessel of science closer to the coasts of arts, then lying this boat ashore, sowing a seed from which a whole new kingdom of knowledge would sprout and leaving the scene beforehand, it is logical that I sympathize with the dream of videogames as “a viable medium for artistic expression”⁵⁶ with all my heart. The dire cost of having to exit the reigns of mainstream R&D to pursue these dreams pales in comparison with the faith that, lived out rightly, they will shape our spirits into something unsuspectedly beautiful.

In summary, games can be art and games can be our guide. Not only does a game like SKOOL DAZE capture a unique zeitgeist as “a quaint combination

54 Ebert 2005.

55 Fuchs 2013.

56 Crawford 2003, 260.

of post-war schooling and post-punk anarchy that flourished, briefly and brilliantly, in the parochial backwash of pop culture that was the 1980s⁵⁷, and not only is it a punch in the face of the neo-Thatcherist conservatism in schooling, politics and elsewhere, but it can also serve as inspiration for creative endeavors in countless other disciplines. Musing over this game over the past half a thousand lines or so of this article, still enough to be erased by Hayley's kiss, took us on a ride on which you and I got acquainted with a plenty of systemic insights relevant for any domain where creative forces can be expressed. Any day, we could use this and similar videogames as memory lanes to slide down, sentimentally, and capture the stardust of inspiration emanating from them before using it as a source of analogical connections with other disciplines and realms of thought.

Life begins with staggering simplicity, continues with adventurous journeys through convoluted realms pervaded with challenging complexities and returns to serene simplicities towards the end. Maybe the story of how personal computers develop will take this cyclical shape too, and in a distant future, after the current obsession with aggressive displays of sheer energetics is over, we will witness a return to an appreciation of the ideals of minimalism. Maybe retro gaming paves the way to a brighter future.

The computer screen before me blinkingly invites me into a game that softens the heart and elates the brain. May the time come when a screen like this will enlighten the heart of each and every one of us. Ready?

READY.

Conclusion: The Gateways to Religion

As we look back at the beginnings of this paper and the quote that spoke of “the flux from boy to man”, the permanent question of the fall, which has been lighting up the psyches of religious scholars for centuries now, can be evoked. This question is often supplemented with an image of a child exiting a state of prime virtue and entering the dark forest of adulthood. Videogames, however, as I have proposed, can help the child in us remain a child for life, which is exactly where the entry of these games into the realm of religiousness begins. For, a pivotal and penultimate⁵⁸ aim of religious thought

57 Whitehead 2011b.

58 Becoming a child is a means to an end on the spiritual path, but not an end in itself.

is to trace a way back, to that primordial state of mind devoid of the tragic defilements that pile up in the heads of grownups with no end in sight.

During his sermon on the Mount of Beatitudes, the Christ, that rebel against the reigning religious order, which was built on superficial rules and regulations, said that “except ye be converted, and become as little children, ye shall not enter into the kingdom of heaven” (Matthew 18:3). But Christianity is not the only religious doctrine that equates an enlightened state of mind and a childlike state of mind. There is Zen Buddhism, of course, as when Bashō says, “‘I do not like children’, for him who says this no flowers bloom”,⁵⁹ or when the famous parable invokes a child who “thought that a tree was just a tree and a mountain just a mountain”, an adult who “thought that a tree was not a tree and a mountain not a mountain”, and an enlightened one who knows that “a tree is simply a tree and a mountain simply a mountain”. And in the Talmud, Elijah’s “holy one, blessed be he, smiled and said: My children have triumphed over me; My children have triumphed over me” (Bava Metzia 59b:5) – is this not an inversion of the pyramid of life, with the children lifted to the top and the adults slumped to the bottom? Or, when Shinto theologians advocate for pursuance of the way to the fundamental source on the basis of the notion of *aru ga mama no aru*, that is, “existence in suchness”, a primal state dwelled in by infants, aren’t they also calling for restoration of a childlike consciousness?⁶⁰ In Hinduism, Upanishads contain references to children as the road worth following, as when it is stated that “the sage should desire to be with child-like nature, which is unattached, faultless” (Subala Upanishad 11:1), for “having mastered both Brahma-knowledge and childlikeness, the sage possesses the Self” (Annapurna Upanishad 4:38). In the Sufi tradition of Islam, children have also been occasionally looked upon as destinations on the religious road, as in poems of Hafiz, such as where he asserts that “every child has known God, not the God of names, not the God of don’ts, not the God who ever does Anything weird, but the God who knows only four words, and keeps repeating them, saying: ‘Come dance with Me, come dance’”.⁶¹ And when Morrissey sang about “a punctured bicycle on a hillside desolate”,⁶² around the time SKOOL DAZE was being made, wasn’t that the cry of a boy

59 Dumoulin 1963, 240.

60 Suzuki 1944, 105.

61 Mundahl 2008, 55.

62 “This Charming Man”, by The Smiths (*The Smiths*, Rough Trade, UK 1984).

who wishes to leave the Garden of Eden for the luster of limelight and a sign of darker things to come?

However, for this literal rejuvenation of the human spirit to occur, it may not be enough to play the videogames *per se*. Rather, it pays off to also understand the subliminal messages that the videogames feed the human consciousness with. One such elucidation of a line after line of subtext intrinsic to one particular videogame, namely SKOOL DAZE, was performed here, in a manner that was general in relevance, but also personal and confessional to the bone. It was concluded that creation is good, but so too, I have proposed, is the razing of reigning orders, paradigms and principles alike. This demolition of the establishment helped clear a way which has been followed to the end.

That road has proved to be a road back, to the Paradise Lost of a child's mind, shining with purity and innocence. Traced line by line, Eric's lines as it were, it has led us to a blinking cursor, to a symbol of new beginnings, of infinite possibilities, of life and science as play. There are no more words to say. Only a winking and infinity beyond it.

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