

# AN EXPLORATION OF THE HISTORICAL CONTEXTS OF NU, POGODI!, A SOVIET ERA LCD GAME

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## PLAYING *NU, POGODI!*

In *Nu, Pogodi!*, the player takes on the role of The Wolf who is attempting to collect eggs from four different hens, each located in a corner of the display. Whenever a hen releases an egg, the egg rolls down a ramp and must be caught by the wolf before it hits the ground. Although the game has no win condition, the player's goal is to catch as many eggs as possible. Eggs that are missed by the wolf will hatch, bringing the player closer to the game's end state, which occurs when the player has missed a total of four eggs.

This section investigates how this play takes form, exploring its hardware and gameplay. It will examine the scoring system and other feedback mechanisms, in relation to player skill and performance, in order to better understand the experience of actually playing the game. Finally, this section delves into the use of modern emulation to play the game—the original console's rarity makes it difficult to obtain, while emulators are plentiful. As such, emulation is likely to be the primary way a modern

player would encounter the game, especially outside of nations in the former USSR.

## HARDWARE

*Nu, Pogodi!* Is played on a handheld console (Figure 1) that features a display and seven buttons. Four buttons are used for actual gameplay and allow the player to move the wolf to one of four different egg ramps. The buttons are aligned to each other in the same manner as the egg ramp (e.g., the top left button corresponds to the top left egg ramp). This not only provides an equal distribution of stress between both hands (two buttons on each side of the console means each thumb is responsible for two buttons), but also facilitates learning the controls for new players; if the buttons were all aligned vertically, the player would likely have a more difficult time identifying and remembering which button corresponds to which position on screen. Instead, the game features a low barrier to entry and is relatively easy to pick up and play.



Figure 1. The *Nu, Pogodi!* Console

Consistent with other handheld games of its time, *Nu, Pogodi!*

relies on an LCD display to present visual stimuli. As a result, the animations are simply a series of static images with preset locations on the screen that are turned on and off in sequence to produce the appearance of motion. In other words, the possible positions of graphics are fixed and not continuous, providing a somewhat unrefined visual animation experience. The wolf, for example, can only appear in four fixed positions; each egg appears in exactly the same four spots; and each egg can travel in only one fixed path after it is spawned. While this is a hardware limitation that reduced the possible scenarios of play, it was a useful technology at the time which enabled the existence of handheld gaming.

## GAMEPLAY

The hardware's ease of use lends itself to *Nu, Pogodi's* gameplay. During a gaming session, eggs are sporadically released from each of the four hens. As a result of the LCD display, each egg will progress through 5 different positions before falling to the ground and hatching into a chick, providing a consistent number of representations each time an egg is released, aiding the player's ability to predict the amount of time remaining until the egg reaches the end of the ramp; *Nu, Pogodi!* is, foremost, a game of speed and timing. Importantly, two eggs will never simultaneously release from two different hen houses—simultaneously releasing eggs from two different hens would mean the player must choose between the eggs, leaving one to inevitably drop. Such a situation would undermine player skill by incorporating a persistent chance of inevitable failure (i.e., if the situation arises, an egg *will* drop to the ground). Furthermore, this scenario would disregard player agency and would likely be demotivational to the player, reducing the game's appeal (Klimmpt, 2005).

The allowance for skill to affect gameplay is an important provision of any game (Adams, 2014). In *Nu, Pogodi!* skill does

not manifest as much as manual agility or mental strategy as it does as judgment, timing, and decision-making. This allocation of skill is driven by the game's difficulty mechanism—randomization of location and speed of eggs. When an egg is released into its first animation position, the player must mentally classify that egg's ramp as active and deserving of attention. Then, she must prioritize the catching of all eggs currently on screen by forecasting when each egg should reach the end of its corresponding ramp. Eggs that will reach the end of the ramp first will need to be caught first.

However, the player cannot simply make note of which eggs were released first in order to tell which eggs need to be caught first. Instead, the player's judgment may need to be adjusted as she observes the speed of the eggs. It is true that each egg will animate through the same number of positions, but it may animate faster or slower than other eggs. Therefore, if one egg is only one animation position behind another, but is moving much faster, it is possible that egg will fall first, even though the other egg was released at an earlier time. The player must notice this in the span of just a few animation positions in order to make an appropriate judgment and prioritize which egg should be caught first, else she will miss the egg and will come one step closer to ending the game.

The narrative that underlies failure (i.e., egg drops and chick hatches) in *Nu, Pogodi!*'s gameplay is interesting. In many ways it runs counter to the premise that the narrative should support the player in accepting the fantasy world of a game (Murray, 1999). It seems the wolf only wants to collect eggs, and has no interest in hatched chicks. If the player assumes gameplay is based on the premise that the wolf is hungry and collecting food for a future meal, she might wonder why eating a chick does not also support this goal. Not only does a hatched chick fail to add points, but also an egg that has hatched into a chick is seen as a failure by the wolf and punishes the player. Thus, the

design choice of using chicks can be confusing. Why, instead, didn't the designers decide to use yolks that may have been seen as unsavory or uncollectable once they had fallen and split into the grassy ground? The answer is unclear. As a result, the player must suspend her disbelief, spawned by the game's narrative, and enjoy the game.

While most of the game is intuitive, there are a few features that aren't quite apparent without prior instruction or extensive thought. At the top left of the screen, The Hare seems to randomly appear and disappear out of a house's window and ring a bell. It can be difficult to understand the purpose of The Hare, at first, and is never indicated within the game. If an egg falls while The Hare is present, The Wolf only loses half of a life, instead of a full life (indicated by a blinking hatched chick image as opposed to a solid one). Additionally, *Nu, Pogodi!* allows players to choose between two different game modes, mode A or mode B. The use of letters to distinguish between the two modes provides little description to the player, again forcing them to have prior knowledge or tease out the differences over time.

## PERFORMANCE AND SCORING

As the player proceeds through a session of gameplay, *Nu, Pogodi!* maintains two statistics to help her understand her performance—eggs caught and eggs dropped. These are simple calculations – whenever an egg is caught, an unlabeled numerical indicator of score in the top right of the screen is increased by one. When an egg is dropped, a pictorial representation of a hatching chick is added to the screen, just below the score. Every time an egg is dropped, another one of these pictures is added to the screen, until the player reaches the maximum of three eggs dropped. If another egg is dropped after three hatching chicks appear on screen, a fourth image will not be added; instead, the game will end.

These statistics serve two primary purposes. First, they both serve as indicators of progress within a single play session. By observing the eggs dropped indicators, the player can see how close they are to losing the game, which may affect the player's mental state (Juul, 2009). A player who has not dropped any eggs is more likely to be in a calm state, while a player that has three eggs dropped indicators is likely to feel more anxious in fear of dropping one more egg and losing the game. Or, depending on the individual, the player who is near the point of losing the game may feel more focused as she realizes the importance of her actions and the heightened stakes of dropping one more egg.

Second, scoring systems are useful for improving motivation (Mekler, Tuch, Bruhlmann, & Opwis, 2013), and also serve as a method for comparing performance within the current play session to performance within previous sessions. A player can self-set goals to either improve upon their previous best score, or to improve upon the score of a peer. This is not a novel instance of design. The use of points-based scores to compare current performance to previous performances is consistent with other games of the 80s, where high score tables could be found in nearly all arcade games. *Nu, Pogodi!* thus leveraged pre-existing gaming norms in their assessment of player performance. This practice likely bolstered longevity of play, as players continued to play in an attempt to get ever higher scores, or to outscore their friends.

The score was displayed in the same element that the clock was displayed on. This is notable, because the clock provides a three-digit seven-segment display allowing for numbers 0-9 and a single two-segment digit allowing for the number one or nothing (i.e., turn these segments off). While this theoretically allows for scores between 0 and 999, the system resets the score on the 1,000th point. Resetting the scoring system probably became a skill-based goal for players who learned of this mechanic. Interestingly, there was a rumor among Soviet children that the

game would show the cartoon at 1000 points (ArtOn, 2014). However, sources suggest that the score would simply reset and play faster when a player reached that score (Komyagin, 2016).

## EMULATION

In modern times, experiencing *Nu, Pogodi!*'s gameplay on an original handheld console, may be challenging, especially outside of the nations from the former USSR, where the console is fairly rare. Instead, modern players are likely to experience *Nu, Pogodi!* via emulation. It has been recreated numerous times, with different versions available for PC, Android, and iOS. Though, these emulations are mostly true to the game's original form (depending upon the specific emulation), emulators change the feel dramatically. Gone are the physical buttons, replaced with images of the original case. The weight of a smart phone, mouse, or keyboard is surely different from the weight of an LCD console from the 1980s, and the player has a greater number of available games to play on their phone. Why play *Nu, Pogodi!*, when *Clash of Clans* is available?

While *Nu, Pogodi!* may have difficulty measuring up to modern games, it can still be an enjoyable experience for a time, even in emulation. There is something nostalgic that maintains player interest, even if the player did not experience this particular game as a child the whole genre brings back thoughts of the old games that came before. Modern game designers borrow the aesthetics of Game & Watch today, including Team Meat's Super Meat Boy Handheld. A throwback version of the Super Meat Boy designed for iPhone (Rose, 2010).

This is a game designed before game designers thought about player progression, downloadable content, or monetization. The player cannot buy hats for the wolf, or pay to win. Yet, there is a respectable core game loop that produces satisfying interaction and is likely to bring the player back for more, even if the modern

player may be initially dismissive of the outdated technology and simple mechanics (Swink, 2008). Of course, it is likely that the historical and cultural context of the time period in which the game was released had a strong influence on the game's success and enjoyability. Now that *Nu, Pogodi!*'s gameplay has been examined, this article will now progress to identify how it fits within its historical and cultural contexts.

## HISTORICAL AND CULTURAL CONTEXT

*Nu, Pogodi!*'s premise and proliferation is perhaps best understood in relation to its historical and cultural context. It was, at once, a knockoff of the popular Game & Watch games, *Egg* and *Mickey Mouse*, and the translation of a popular Soviet cartoon into an interactive format – an international copycat that remains reflective of Soviet culture. This section will discuss its ties to the USSR, The Game & Watch games from which it drew its inspiration, and the Soviet cartoon, *Nu, Pogodi!*, that both provided the subject matter for the game and likely created large scale interest amongst Soviet youths.

## TECHNOLOGY

Before examining the games themselves, it is important to understand the technology that was supporting these games. *Nu, Pogodi!*, which sold for 25 rubles (iPress, 2014), ran on its own hardware, which was very similar to Nintendo's Game & Watch games, with some minor, yet significant differences.

### **Game & Watch**

Legendary toy and game designer, Gunpei Yokoi, is responsible for many of Nintendo's successes over the years including the Game Boy, and Virtual Boy (Voskuil & Okada, 2014). As a toy designer he had the idea for the Game & Watch series of games while observing a man who was passing the time by using an electronic calculator on a commuter train on his way home from

work (Brown, 2016). All Game & Watch games at that time used a segmented LCD that allowed for various segments to be activated to simulate animations and gameplay, on an otherwise simple piece of hardware. This screen design has been largely replaced by matrix LCD screens, but can still be found in calculators, thermostats and even some car display panels. The use of this technology exemplifies Gunpei Yokoi's general philosophy of incorporating lateral thinking in game design, which involves leveraging existing (and even worn out) technologies and using them in creative new ways to create surprising results (Yokoi, 1997). While segmented LCD technology has largely been replaced in handheld electronic games, it paved the way for handheld electronic games to exist and remains useful in other applications today.

*Game & Watch* games were incredibly popular with nearly 60 titles over a 10 year span, and their impact can still be felt in nearly every popular game console today. The iconic directional pad shaped like a plus sign found on every Nintendo game controller, the A and B buttons, and even the iconic dual screen design of the Nintendo 3DS was first attempted in a game and watch game. What seemed like simple design choices would lend themselves to games for decades to come. The games themselves have also stood the test of time, with rereleases happening on future Nintendo handhelds, and a VR version of the popular game *Fire*, which asked players to bounce a baby falling from a burning building to safety in a fire truck. Although he never had a name on Game & Watch, Mr. Game & Watch is a popular character in the Super Smash Bros. series that pits characters across Nintendo's library against each other. These *Game & Watch* consoles paved the way for the *Elektronika* brand of handheld games.

## **Elektronika**

Nintendo did not sell games in the USSR in the 1980s due to

the difficulty of importing Japanese products as a result of the hostile relations between the USSR and Japan during the USSR's communist rule (Hara, 1998). Yet, there was a full line of Game & Watch style games sold in the USSR at this time, but under the brand name of *Elektronika*, which was also used for a number of other electronic devices, including calculators and computers. While the games were all sold under this moniker, they were produced by a number of different manufactures around the USSR (Shayevich, 2010), and were labeled with model numbers in the form of "ИМ-##", or in Russian, "ИМ", the Russian acronym for Игра Микропроцессорная, or Microprocessor game.

It is important to note that the *Elektronika* versions of the *Game & Watch* games were not pure imitations, but were strongly influenced by the *Game & Watch* brand and were modified, where necessary. They were manufactured for the Soviet market with their own branding, logos, hardware, and original box art. These *Elektronika* units were slightly heavier than their Japanese counterparts, and had air vents on the back of their cases, with slightly modified art to better cater to the Soviet market. In the case of *Nu, Pogodi!*, the first *Elektronika* game, they were modified to take advantage of a successful pre-existing media phenomenon, the *Nu, Pogodi!* cartoon, probably to bring existing fans to the handheld gaming realm.

## MEDIA INFLUENCE

It is important to understand the influence the *Nu, Pogodi!* brand had on the new game of the same name to better understand how players at the time would have understood and received the game. Additionally, another precursor game, *Mickey Mouse*, served as something of a missing link between *Egg* and *Nu, Pogodi!*, easing the transition from Nintendo's original product to the final game that would feel more familiar to Soviet citizens. This section examines the cartoon and *Game & Watch's* *Mickey*

*Mouse*, to better understand how the *Nu, Pogodi!* game came to exist as it did.

### ***Nu, Pogodi!*, the Soviet Cartoon**

The *Nu, Pogodi!* cartoon (1969-1986) was a favorite of Soviet children (Vigule, 2013). It follows the comedic rivalry between The Wolf and The Hare, a rivalry that is continuously represented across Russian folklore and literature (Beumers, 2010). The cartoon's plot is similar in many ways to the U.S. cartoon *Tom & Jerry*, where similarities can be drawn between The Wolf and The Hare and the characters Tom and Jerry, respectively, where The Wolf is constantly trying to catch The Hare (Blackledge, 2010). Very little dialogue is present in the cartoon, save for a few interjections and The Wolf's most common line which he frequently says when his plan fails, "Nu, pogodi!" or, "Well, just you wait!" in English.

The show was developed in the USSR with The Hare representing the ideal Soviet citizen and The Wolf representing a less refined enemy. Try as he might, The Wolf's attempt to catch the hare would never succeed; this is thought to represent how communism would always triumph (Kapkov, 2007). While the show is similar to the western hit *Tom & Jerry*, the show may not have influenced the creation of the *Nu, Pogodi!* cartoon. In an interview, the creator's son stated that his father was unaware of *Tom & Jerry* until 1987, when he first got a VCR (Kapkov, 2007). Regardless, a viewing of both shows provides many similarities, just like those between *Egg* and the *Nu, Pogodi!* game.

### ***Mickey Mouse* the American Icon**

Like *Nu, Pogodi*, *Mickey Mouse* (1981) played very similarly to *Egg*. It featured the popular Disney character, Mickey Mouse, in a hen house catching eggs before they fell to the ground. In contrast to *Nu, Pogodi!*, *Mickey Mouse* was an international phenomenon, not

limited to one country, and was well-known around most of the world. In 1981 Nintendo licensed Mickey Mouse from Disney for a *Game & Watch* game. It was Mickey Mouse's first electronic game, sold over 1,200,000 copies and is considered one of the bestselling *Game & Watch* games ever made. However, due to licensing restrictions, the game could not be sold in Australia and some Asian countries (Gschmeidler, 2014). In these regions Mickey Mouse was replaced by an unnamed wolf, and this game was released under the name *Egg*. This unnamed wolf would become the perfect vehicle for *Elektronika* to inject the Soviet wolf from the *Nu, Pogodi!* cartoon.

### ***Egg vs. Nu, Pogodi!***

The contrast between *Nu, Pogodi!* and *Egg* are quite extreme, especially considering they are essentially clones of one another. *Egg* remains one of the rarest *Game & Watch* games ever made (Gschmeidler & Meyer, 2014) and sold for \$20 USD, while *Nu, Pogodi!* sold for 25 rubles, which was substantially less, but not insignificant for the average Soviet citizen. To place this in context, in 1985, just over 50% of the population had a per capita income of less than 200 rubles per month, with nearly 20% of the population at less than 100 rubles per month (Alexeev & Gaddy, 1993). It is important to note that while the *Elektronika* devices could be afforded by a large portion of the population, many Soviet citizens would have found the cost to be substantial.

*Egg* was essentially a clone in and of itself to sell the Mickey Mouse game in other regions. Nintendo made a number of branded *Game & Watch* games, and finding a way to sell those games in regions where they did not have the rights made good business sense. They replace Mickey with a generic unnamed wolf character, and replaced Minnie Mouse with a rooster. The consumers in Australia would never know the difference, and gameplay would not be affected. Of course, The Wolf happened to look almost identical to The Wolf in the *Nu, Pogodi!* cartoon.

Changing the rooster to a hare would not take much additional effort. So, somewhat ironically, *Egg* was created to get around the restrictions created by branding (i.e., Disney's Mickey Mouse), but in doing so, they created a wolf that would lend itself perfectly to the use of the *Nu, Pogodi!* brand in *Elektronika's* knockoff.

The first *Elektronika* game the USSR made was *IM-02 Nu, Pogodi!* a clone of Nintendo's *EG-26 Egg*. The games even cloned the naming convention. The Wolf from *Egg* is wearing different clothes in *Nu, Pogodi!*, the cock that replaced Minnie Mouse in *Egg* was replaced with The Hare from *Nu, Pogodi!* and even the green grass that was painted behind the LCD was present, although it did have a slightly different pattern.

While *Nu, Pogodi!* was still an obvious clone by anyone's measure, it and the other *Elektronika* games were not impacting the market in which the other Game & Watch games were created for, and for all intents and purposes were original games for their market. Restrictions on communication and trade beyond the USSR (Broadman, 2006) would have meant Soviet citizens would likely have had no knowledge of the *Game & Watch* brand, making all of the *Elektronika* games appear to be original concepts. Thus, Soviet citizens likely viewed *Nu, Pogodi!* as a simple extension of the cartoon.

The *Nu, Pogodi!* game was released late in the life of the cartoon, which ended its run in 1986. Similar to the game, the cartoon was no stranger to copyright violation. It explicitly used popular international music as its soundtrack seemingly without permission (STRAS, 2014). With this in mind, it is not difficult to believe they would use other copyrighted work (i.e., Game & Watch games) as the foundation for the video game. Regardless of its ethical implications, *Nu, Pogodi!* became one the first successful TV-based computer merchandising efforts in the USSR (CHM, 2016).

## CONCLUSION

*Nu, Pogodi!* is an interesting case in the history of games. As is the case with history in general, the perspective on *Nu, Pogodi!* will likely depend on the role played by the perspective taker. For some, it is evidence of the failures of the USSR to assimilate into the free market economy of the new world order after World War II, an example of blatant cloning of original works of art at the expense of their creators, and an example of how cheaper knockoffs provide a less than ideal experience compared to the original game. Although the game was developed as a way to unbrand the the Mickey Mouse game, and was in and of itself a reskinned game, the fact that the Nu Pogodi! handheld exists as a blatant clone is an affront to the hard-working developers at Nintendo. That, or the fact that Egg happened to feature a similar protagonist to the Nu, Pogodi Wolf, does not give the USSR permission to rebrand or knockoff the game. The effort to remove this branding did, ironically, create the first branded game in the USSR.

However, to a former Soviet child, *Nu, Pogodi* is likely an example of extending a brand through transmedia storytelling, a fond first memory of handheld gaming, and a great way to have fun on a long road trip with family. The perspective of the player is unique as a game that is, at best, a derivative product of a popular American branded game with a nameless wolf and is possibly the only recognizably wholly Russian gaming experience available in the USSR at the time, beside the more internationally famous *Tetris*, which was developed in the same year (Brown, 2016).

A modern player, if not wholly concerned with international copyright law, is likely to yield yet another perspective. *Nu, Pogodi!*'s gameplay was not revolutionary. However, it was, and remains, a quite playable, if unrefined, piece of video game history. Nintendo's international prominence in the 1980's is likely to have given many the opportunity to play games that

had similar mechanics and gameplay requirements to *Nu, Pogodi!*, whether or not they were direct siblings, like *Egg* or *Mickey Mouse*. For this reason, any player who was a child during this time will likely find the familiar gameplay to be nostalgic, even if they never before encountered this particular game. With the use of modern emulation, the game is perhaps more accessible than ever; while it may be more difficult for players to acquire an original LCD console, *Nu, Pogodi!* is available for free through numerous sources, so long as the player has an internet connection.

*Nu, Pogodi!*'s roles as transmedia phenomenon and international copycat during the time of the rise of Nintendo makes *Nu, Pogodi!* a fascinating case study. Unfortunately, the literature shows that the game has not been well-documented. While it is easy to experience the gameplay through modern emulation, scholarly research surrounding the game is somewhat rare, especially in the English language, and outside of informal personal websites. Thus, this article examines and documents the gameplay and historical and cultural contexts surrounding *Nu, Pogodi!* in order to better document its place in international video game history.

## REFERENCES

Adams, E. (2014). *Fundamentals of Game Design (Third Edition)*. New Riders. Indianapolis IN.

Alexeev, M.V. & Gaddy, C.G. (1993). Income distribution in the U.S.S.R. in the 1980s. *Review of Income & Wealth*, 39(1), 23-36.

ArtOn. (2014). As the soviet union was stealing from the west. *ArtOn*. Retrieved from <http://art-on.ru/rubric/technology/65238.html/>

Beumers, B. (2010). Comforting creatures in children's cartoons. In M. Balina & L. Rudova (Eds.),

*Russian Children's Literature and Culture* (153-205). Location: Publisher.

Blackledge, O. (2010). Violence, chases and the construction of bodies in American and Soviet

animated series. *Animation: An Interdisciplinary Journal*, 5(1), 41-56.

Broadman, H.G. (2006). From Disintegration to Reintegration: Eastern Europe and the Former Soviet

Union in International Trade. World Bank Publications. Washington D.C., USA.

Brown, B. (2016). Tetris: The Games People Play. First Second. New York, NY.

Computer History Museum (CHM). (2016). Nu, Pogodi! (Just you Wait!, Elektronika IM 02 electronic

Game. Catalog Item Number 102741207. Computer History Museum. Available Online At: <http://www.computerhistory.org/collections/catalog/102741207>

Gschmeidler, D., Meyer, G. (2014). The Unofficial Game & Watch Collectors Guide: LCD Handheld

Games from 1980 to 1991. Self Published.

Hara, K. (1998). Japanese-Soviet/Russian relations since 1945: A difficult peace. Routledge. New York, NY.

iPress. (2014). Where "electronics" in the USSR had copied their electronic products (Google, Trans.). iPress.ua. Retrieved from

[http://ipress.ua/ru/ljlive/s\\_chego\\_elektronyka\\_v\\_ssr\\_skopyrovala\\_svoy\\_elektronnie\\_yzdelyya\\_647](http://ipress.ua/ru/ljlive/s_chego_elektronyka_v_ssr_skopyrovala_svoy_elektronnie_yzdelyya_647)

Juul, J. (2009). Fear of failing? the many meanings of difficulty in video games. *The video game theory reader*, 2, 237-252.

Kapkov, S. (2007). Interview with son of Vyacheslav Kotenochkin. *The Daily Telegraph*. Available Online at: <http://gzt.ru/culture/2007/06/19/220001.html>

Klimmt, C., & Hartmann, T. (2006). Effectance, self-efficacy, and the motivation to play video games. *Playing video games: Motives, responses, and consequences*, 133-145.

Komyagin, O. (2016). Toys 80: "Well, wait a minute!", Caps and Paper Dolls. *Komsomolskaya Pravda*. Available Online At: <https://translate.google.com/translate?hl=en&sl=ru&u=http://www.kp.by/daily/26270.5/3148051%3Fgeoid%3D1&prev=search>

Mekler, E.D., Tuch A.N., Bruhlmann, F., & Opwis, K. (2013). Disassembling gamification: The effects

of points and meaning on user motivation and performance. In *CHI'13 Extended Abstracts on Human Factors in Computing Systems*, 1137-1142.

Murray, J. H. (2016). *Hamlet on the Holodeck*. Simon and Schuster.

Rose, Mike (2010) Developer plays a joke on Apple with Super Meat Boy Handheld. *Pocket Gamer UK*. Available Online At: <http://www.pocketgamer.co.uk/r/iPhone/Super+Meat+Boy+Handheld/news.asp?c=19682>

Shayevich, B. (2010). *Made in Russia: Unsung Icons of Soviet Design*. Rizzoli International

Publications. New York, NY.

Slash. (2014). G&W Clones FAQ. Game & Watch FAQ. Available Online At: <https://www.gameandwatch.ch/en/faq-questions-answers/game-watch-clones.html>

STRAS STUDENTS. (2014). The Making of Nu, Pogodi!. Art in Russia. Available Online At: <http://artinrussia.org/making-history-nu-pogodi/>

Swink, S. (2009). *Game feel. A Game Designer's Guide to Virtual Sensation*. Burlington, MA, 1.

Vigule, D. (2013). Significance of toys in socialization process of pre-school child. *Proceedings of the*

*International Scientific Conference*. Latvia University of Agriculture.

Voskuil, E. Okada, S. (2014). *Before Mario*. Omake Books, Spain.

Yokoi, G. Makino, T. (1997). *Yokoi Gunpei Game House*. ASCII. Japan.