

Historyka. Studia Metodologiczne, XLIII, 2013, ss. 91–114

POSSIBLE TOOLS TO RESEARCH POSSIBILITY. ABOUT ENTERTAINING “WAR GAMES” AND THE VALUE THEY CAN BRING TO THE DEVELOPMENT OF THE HISTORICAL SCIENCES

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Abstract

Philip Sabin points out that modern wargames not only contain substantial amounts of historical information but also arrange it into interactive models which depict historical processes in a simplified manner. Such models can be used in historical research as well, complementing the discourse through more holistic and mathematically strict accounts, and providing tools that impose some discipline on counter-factual speculation.

Key words: games, wargaming, modelling of history, counterfactualism, military history

What are these boxes seemingly of lead, that I see in that glass case? Are they not witnesses to that terror and beauty, that desire for a lovely death, which could not be excluded even from the immortality of Eden? Do not despise the lead soldiers,
Mr Turnbull.

I don't! — said Mr. Turnbull of the toy-shop, shortly, but with great emphasis.

G.K. Chesterton, *The Napoleon of Notting Hill*¹

THE ROUND-ABOUT HISTORY OF “ENTERTAINING WAR GAMES”

Amusement and war are two seemingly opposing spheres of human activity. The first is associated with safety and carefreeness; the second seems to be the exact opposite. Yet, there exists a certain factor linking these two phenomena — fun with war games. A surprising light is shed on this through research conducted over recent years by naturalists on wild chimpanzees. It is apparent that these closest living creatures to *homo sapiens*

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¹ G.K. Chesterton, *The Napoleon of Notting Hill*, London–New York 1904, p. 153.

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conduct real, bloody, and at the same time characterized by a surprisingly “human” cleverness military expeditions aimed at banishing competing groups from rich fruit trees on the border of their territory.² At the same time, young male chimpanzees passionately indulge in everyday play-fighting.³ Of course, one must be very careful when forming such similarities. In this case, it is difficult to resist the impression that both “war” and “war as game” are not the proverbial “dawn of mankind” but appeared at a much earlier stage of development — a proposal no doubt annoying for all proponents of the exclusivity of the human species in the natural world (though a monopoly on the conduct of war would not seem to be something that mankind should be especially proud of).

In this context, Johan Huizinga’s conclusion is very valid: “ever since words existed for fighting and playing, men have been wont to call war a game”⁴ More recently, a group of English-speaking scholars have pointed to a few examples of the prevalence that is common in different eras and different, isolated cultures — the phenomenon of “war games.”⁵ A specific form of play is the “game”, the real war combines both the element of competition, struggle (Greek *agon*) and surrendering to specific rules which should be followed. Even if the struggle is considered the essence of the “real war” and the rules as features of game, it is difficult to find examples where war is totally devoid of rules and games totally devoid of agonistic elements.⁶

More than one hundred years before the author of “Homo ludens,” the similarities of war to game were recognised by the outstanding military theorist Carl von Clausewitz, who wrote that in the whole range of human

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2 J.C. Mitani, D.P. Watts, S.J. Amsler, “Lethal Intergroup Aggression Leads to Territorial Expansion in Wild Chimpanzees”, *Current Biology* 20.12 (2010), pp. 507–508. An excellent illustration is from the BBC popular science film “Planet Earth” episode 8 entitled “Rainforests” with commentary by David Attenborough (directed by A. Forthergill, A. Byatt and others. BBC Bristol 1996, Polish version, Warszawa [2012], min. 43–47).

3 S.M. Kahlenberg, R.W. Wrangham, “Sex Differences in Chimpanzees’ Use of Sticks as Play Objects Resemble Those of Children”, *Current Biology* 20.24 (2010), pp. 1067–1068.

4 Translated from: J. Huizinga, *Homo Ludens. A Study of the Play-Element in Culture*, London–Boston–Henley 1949, p.89.

5 T.J. Cornell, T.B. Allen (eds.), *War and Games*, Rochester, NY 2002. Individual authors deal with war games in ancient Greece and Rome, the Middle Ages, Byzantium and Western Europe, in the world of the Aztecs and the Papuans and the tribes of southern Ethiopia.

6 Huizinga, *op. cit.*, pp. 89–91 indicates that the tendency to deprive war “rules” inevitably connects not only with the dehumanisation of the enemy but with the rejection of the war “code of honour.”, which constitute the identity of war waging side.

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activities, war most closely resembles a game of cards.⁷ This ingenious intuition would have appeared paradoxical to most contemporaries even though that era witnessed the dawn of a new type of “war” game that helped the military to prepare better for future wars. It is a paradox that the development between the art of war and war games happened parallel to one another.

The origins of “wars fought on a board” are lost in the mists of time. It is difficult to find a basis for the adoption of Peter Perla’s assumptions that Sumerian and Egyptian soldier figurines were in fact pawns in some unknown war games.⁸ Undisputed, however, are the beginnings of the most respected board game — chess. A prototype of chess was the Indian *Chaturanga*, originally a war game representing warring armies equipped with elephants, chariots, cavalry and infantry. Over time, chess clearly lost this unique, warlike characteristic. *Wei Chai* a prototype of *Go*, intended to reflect a way of overcoming the enemy army by surrounding it, with no direct clash — anyone who has ever encountered rules of *Go* easily recognises this strategy.⁹

Although at their inception board games were a kind of “model for war”, over the next centuries this concept moved towards abstraction, which found its culmination of the mediaeval *Numeromachia* — a game played on a chessboard where each pawn is assigned a numerical value while a victory is decided by strategically setting them according to one of the three proportions: arithmetic, geometric or harmonic.¹⁰ The modern era has witnessed inept attempts to return to the basic orientation; through giving pawns military ranks and specific features to battle fields (a distant descendant of this “war chess” is the currently popular game “Stratego”).¹¹

By the end of the 18th century, modelling sea battles with miniature ships contributed to the first major success in military history. In this way, Scotsman John Clerk developed the linear tactics of breaking ships, successfully used by Admirals Rodney and Nelson. It should be noted, however,

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 7 C. von Clausewitz, *On war*, edited and translated by M. Howard and P. Paret, Princeton 1976, p. 86.

8 P. Perla, *The Art of Wargaming*, Annapolis 1990, p. 15.

9 P. Perla, *op. cit.*, p. 16.

10 D. Ilmer, N. Gädeke, E. Henge, H. Pfeiffer, M. Spicker-Beck, *Rhytmomachia*, München 1987; Ph. von Hilgers, *War Games. A History of War on Paper*, transl. R. Benjamin, Cambridge–London 2012, pp. 1–10.

11 P. Perla, *op. cit.*, pp. 17–19.

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that it was not a game but a single-handedly built model for the development of new concepts of naval tactics.¹² In the times of the greatest Napoleonic triumphs, influential groups of young Prussian officers attempted to oppose the genius of the French Emperor by cleverly constructing war games.¹³ However, lasting success was achieved through the civilian work of Wrocław (Breslau) officer Georg Leopold von Reisswitz and enhanced by his son, a lieutenant of the Prussian army. This *Kriegsspiel* delighted Prince William (later Kaiser Wilhelm I) and the initially sceptical Chief of Staff Karl von Muffling who was the first to shout “This is not a game! This is training for war” and instructed it to be used as a training tool for officers.¹⁴ This demonstration contained all the elements of war games used in the modern military — two hierarchical groups of players separating the third group of “umpires” who adjudicated the results of battles (later, the role of these “umpires” became the simple transmission of isolated information from players on both sides).

Although the road to invention was bumpy (young von Reisswitz, worried with his conservatively minded superiors, committed suicide), the Prussian Army’s successes in the battles of Sadowa and Sedan ultimately convinced other general staffs of the usefulness of “war games.” Used in all armies, these games have a long history of spectacular successes and failures but it is hard to imagine them without modern warfare planning.¹⁵ However, the “war games” of the 20th century survived another adventure — the return to the world of entertainment.

Probably a surprise to many is the fact that the father of entertainment “wargaming” was a pacifist and one of the most prolific minds of the early twentieth century — Herbert George Wells. The declared goals were also pacifist — on the eve of the First World War (*Little Wars* was released in 1913) Wells offered his compatriots who did not know war new entertainment that was to satisfy their “agonistic” instincts without unloading them in the real world. The idea was ingeniously straightforward — Wells took advantage of the growing manufacture of miniature toy soldier industry by creating rules of war for them.¹⁶ The further fate of the idea may, paradoxically, have confirmed the intuitions of this British pacifist. Generations

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12 P. Perla, *op. cit.*, pp. 19–21.13 Ph. von Hilgers, *op. cit.*, pp. 33–39.14 P. Perla, *op. cit.*, pp. 23–30 and Ph. von Hilgers, *op. cit.*, pp. 43–53.15 P. Perla, *op. cit.*, pp. 30–34, 40 (footnote).16 P. Perla, *op. cit.*, pp. 3, 34–36.

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engaged in mutual slaughter proved to be of very modest interest in it. Only the 1950s and 1960s brought about a rapid development in “wargaming” directed, interestingly enough, towards past historical conflicts. Researchers combine it with the generation brought up in the cult of heroism of soldiers fighting against Nazi Germany, while in disgust relating to modern warfare, be it real, as the war in Vietnam, or the potential threat of nuclear annihilation.¹⁷

The popular “wargaming” of the 1950s split into two branches. The British heirs of Wells developed the “model making” element, focusing on the spectacular, aesthetic aspects of soldier-figures and military equipment. The Americans instead sought to develop a more abstract board game, sacrificing the aesthetics of miniature models for the rules, modelling events on the battlefield.¹⁸ A schism is visible in the majority of countries and communities, the honourable exception and example of cooperation is France with its magazine *Vae Victis*¹⁹ and Poland’s internet forum “Strategie,” bringing together some hobbyists from both groups.²⁰

While the direction of the UK can be called “art,” the course of the U.S. went far in the direction of historical research on past conflicts. A significant step was the development in 1964 of the Battle of Midway game in which interviews with the hero of the battle Admiral McClusky led to a revision in the creator’s vision.²¹ Without losing their entertainment aspect, commercial war games endeavoured to model games more ambitiously on historical events. The military was the first to appreciate these efforts, citing many game developers and entertainment experts, designing “serious” war games intended for the army. It turned out that a hobbyist was able to develop models that simulated reality better than professional soldiers.²²

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17 P. Sabin, “Playing at War: The Modern Hobby of Wargaming”, in: T.J. Cornell, T.B. Allen (eds.), *War and Games*, Rochester, NY 2002, p. 201.

18 P. Sabin, *op. cit.*, pp. 200–202.

19 <http://vaevictis.histoireetcollections.com/> (accessed on 26.07.2012).

20 <http://www.strategie.net.pl/> (accessed on 26.07.2012).

21 P. Perla, *op. cit.*, pp. 118–119.

22 P. Perla, *op. cit.*, pp. 147–150. Mark Herman, one of the greatest creators of “entertainment war games” and also the designer of “serious” games for the military, presented himself as follows: “The majority of my career has been spent either as a full time wargame designer with a sideline in Defense consulting or vice versa” (M. Herman, *Card Driven Games: A False Choice?*, “Against the Odds” 21 (2008), p. 26). It is worth noting that Herman is the co-author of a book which helps forge a “strategic” experience of war games as a useful tool for business and economics (M. Herman, M. Frost, R. Kurz, *Wargaming for Leaders. Strategic Decision Making from the Battlefield to the Boardroom*, New York 2009).

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However, valuable recognition in the world of academic science still seems too early.

Of interest may be the activity of Philip Sabin, a professor of war studies at Kings College in London (as well as an expert on the UK's Royal Air Force).²³ Sabin is a distinguished scholar of both recent and ancient military history (his theory of the ancient land battle makes a significant contribution to our knowledge of the era²⁴) and also a designer of historical board games. In the last decade, he dared to combine both lines of interest and citing the life course in which participants examine historical conflicts by playing them out on a board. The final project is to create a game for modelling a specific historical conflict and a classical narrative work examining its course. The course achieved undoubted success — resulting in not only the popularity for developed games but also the, very positively evaluated, corresponding narratives, analysing the source material in a way that differs from established routines.²⁵ This success emboldened Sabin to write a book which, in my opinion, in the history of science may play a similar role, which in military history was played by the show, commanded by Lieutenant Georg Heinrich von Reisswitz before Field-Marshal von Muffling, co-author of the victory at Waterloo.²⁶ It carries the significant title “Studying conflict through simulation games.”²⁷

CONSTRUCTING THE “ENTERTAINING WAR GAME”

The structure of Sabin's work, a transition from general considerations to increasingly detailed ones, may arouse controversy. In the first part, he discusses his reflections on the nature of war games, the possibility of their use in teaching and historical research. In the second part, he breaks the game into prime factors: the board and pieces, the rules, and finally the

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23 <http://www.kcl.ac.uk/sspp/departments/warstudies/people/professors/sabin/index.aspx> (accessed 26.07.2012).

24 Ph. Sabin, "The Face of Roman Battle", *Journal of Roman Studies* 110 (2000), pp. 1–17; Ph. Sabin, *Land Battles*, in:]Ph. Sabin, H. van Wees, M. Whitby (eds.), *The Cambridge History of Greek and Roman Warfare*, Cambridge 2007, vol. I, pp. 399–433.

25 P. Sabin, *Simulating War. Studying conflict through simulation games*, London–New York 2012, pp. 40–43.

26 Here should be mentioned the role of von Muffling as the Prussian officer at the headquarters of Wellington in 1815, it is clear that his contribution to the cooperation between Wellington and Blücher's armies was decisive to the defeat of Napoleon at Waterloo.

27 P. Sabin, *op. cit.*, p. XXI.

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dynamics of the testing process. In the third part, he presents his own game, one used in class. He encourages everyone to copy and use this game, especially in teaching. However, he is aware that not every reader will be patient, docile, and obedient enough to break through the first two theoretical parts. Therefore he urges others to jump to the practical examples of the third part and after their rethinking (and playing) to return to the interrupted reading.²⁸ In the background is the pessimistic assumption (very dangerous for the reception of this article) that someone who has never played a war-game will not be able to understand more abstract reflections on its topic.

Aware of these risks, I will begin the presentation of the author's thesis formulated by him with the analytical definition of "wargaming." According to him, this is a phenomenon that combines three spheres of human activity: knowledge of the history of wars, game and simulation (modelling).²⁹ It is easiest for one to extract from this amalgam the first factor: the interest in military history. "War game" is a type of game to which is added a certain resource of historical knowledge. What then, does it mean that it is both a game and a simulation? To answer this, some examples of phenomena that do not satisfy any of the conditions must be considered. The mock-medieval town certainly is a model that contains a huge amount of data flowing from historical research but it is not in the slightest a game. Playing with soldiers of past epochs according to the rules which, however, are not led out from our historical knowledge is a game with a historical basis but there are no modelling ambitions or accurate mapping of the past. A game progressing in a fantastic world whose rules of functioning we are trying to determine is undoubtedly a simulation game but there is no reference to the historical reality. However, if we replace the fantastic world by historical reality, in an attempt to render our historical knowledge with the mechanisms of the game, we get what we are used to call a "war game." Of course, it is worth noting that the term "war" is misleadingly restrictive; Sabin's definition meets every properly constructed game modelling historical reality, not just those of a strictly military nature.

Moving to the level of abstraction one can say that the conditions of a "simulation game" (fantastical or historical) are met in a game, which on the one hand contains a certain closed, reflecting ("simulating") mathematical-reality model and on the other does not lose the agonistic nature of the

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28 P. Sabin, *op. cit.*, pp. XXI–XXIII.

29 P. Sabin, *Playing at War, op. cit.*, pp. 194–196; Ph. Sabin, *Simulating War, op. cit.*, pp. 3–4.

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game as a rivalry between human decisions to “win” as defined under the rules. The author points out that the game theory discussed the very possibility of the existence of such a hybrid.³⁰ But in the late 1970s it was noted that this type of creation, which is something between isomorphic models of the real world and devoid of ambition in mapping reality games, can become great tools to develop theory and for hypothesis testing.³¹ Thus, is it not worthwhile to inquire about the usefulness of these “simulation models” for historical research? The author answers this question in the affirmative by showing its advantage over other tools used for this purpose in military history, from the mathematical model of Frederick Lanchester, estimating the losses of clashing armies by a simple mathematical algorithm and ending with the attempt to build a counterfactual narrative.³² These are, it is worth noting, two extreme examples of model-free element decision making and decision analysis, devoid of element modelling. This topic is a guiding thought throughout the book, a detailed enumeration of the benefits that such a “simulation game” can bring to historical research which takes place in the fourth chapter.³³

Before we discuss them, it is worth presenting the the structure of the modern “entertaining war game” to the reader, not so much based on a specific example as moving in the spectrum used by some types of games. One must consider not only the role of the individual elements in the process of playing but also in the modelling of historical reality.

The most visible, yet seemingly “frivolous” component of the game is its “hard core” — game board, counters, other kinds of mobile elements. and cards. In this way, they are hard historical data that are introduced into the model. The board reflects the importance of the model data on historical geography. There are a number of ways of modelling terrain — from a regular grid of square or hexagonal fields to selecting only the nodal points of roads on the boards in a point-to-point style. The common feature of these solutions is the treatment of position in space as discrete values which can be always clearly defined. This is a basic, from the point of view of the needs of mathematical modelling, prevalence of these types of mock-up board games, after which the figures move normally. An unambiguous definition

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30 P. Sabin, *op. cit.*, p. 5.

31 B.R. Schlenker, T.V. Bonoma, "Fun and Games: The Validity of Games for the Study of Conflict", *Journal of Conflict Resolution*, 22.1 (1978), p. 32.

32 P. Sabin, *op. cit.*, pp. 6–15.

33 P. Sabin, *op. cit.*, pp. 59–63.

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of the subject is not only the characteristics of the place (field) but also the conditions for moving between fields.

The timeframe of the game is also divided among stable intervals called stages. These typically correspond to a time period specified in the real world. The fundamental dilemma faced by a game developer is to determine the order of moves players can make on the stage or board. The two basic options are alternating and simultaneous moves. The latter seem intuitively closer to the actual ordering of actions in the world but their application brings a far from intuitive result. It mechanically presupposes decisions while any opportunity to respond to the opponents currently observed action is absent. That is why modern board games typically use alternate action models, approaching simultaneity by dividing the stage into a number of smaller units, alternating moves in the Anglo-Saxon terminology of “impulses” in which players can perform only a few or only one decision at a time.³⁴

Counters, risers, blocks, sometimes even figurines (gaming miniatures used on the board) represent the selected agents whose actions are being modelled. In war games, these are among other things troops and units, but also their commanders. The obverse and reverse of the counters or auxiliary markers help to define the current state of the military unit or person. It is necessary to tell apart counters, representing units or persons from other markers, which help to define the variable field properties on the board. Some war games use cards, the principal or even the only material element of the game. Having cards simulates the range of decisions that lie within the player’s field of play. Often, one card can be played in many ways, such as having a specific number of “action points” that allow the player to move troops as well as a specific event, changing the situation on the board in a more complicated way. Events independent of the will of the players are simulated (or at least should be) by randomly drawing cards from a common deck or cards that one is forced to play.

The intangible skeleton of the games are their rules. Although generally given in descriptive form, they give a mathematically rigorous form to decisions making by the players and the determination of the interaction between them. Typical examples are movement and fighting, but historical games tend to ambitiously add other dimensions of reality (even in purely military games there come into play initiatives by commanders, supply, and

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34 P. Sabin, *op. cit.*, p. 106.

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beyond-battle losses).³⁵ Here, mathematics can take either a deterministic or probabilistic form. The classic way of introducing the probability factor into the game is to use dice, but a random distribution of cards is also an option.

All the elements described above make up a model that can be described mathematically and thereby be further analysed by a computer. This is not, however, the object of the game, but the commitment to a “service” model for two or more players who will seek to achieve the “victory”, as it is described by the model. Of course, the decision-making mechanisms can also be analysed mathematically, namely using game theory.

The method of entering human decision-making into the model of action is a key factor, from which difference between a game and just an interactive illustration arises. It is assumed that players will strive to win, but in multiplayer games the achievable goal is often to prevent victory by any of the other players. Here, players’ behaviour can be subtly controlled by appropriately designating the victory conditions, for example by collecting the right amount of “victory points.” These points can serve to cast some non-rational considerations which are subject to real-life scenes by historical actors, for example by punishing players for not taking offensive moves, forced by political factors.³⁶ It is certainly less drastic than a simple order placed in the rules and places the player before the dilemma of whether to take the risk of suboptimal actions or incur certain costs or consequences.³⁷

An apparent drawback of board games is that they give the player a full view of the situation on the board. This seems contrary to Clausewitz’s maxim that three-quarters of the relevant information for the decision-maker during war is not available.³⁸ War games played with the “fog of war” military factor are marked by “arbiters” who alone have full insight into the situation and provide relevant information to the two isolated groups

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³⁵ Examples might include the very popular games created by Ed Beach, *Here I Stand*, Hanford CA, GMT Games, 2006 and *Virgin Queen*, Hanford CA, GMT Games, 2012, simulating the competition of sixteenth-century Europe powers, not only in the military but also religious field, dynastic politics and cultural patronage.

³⁶ P. Sabin, *op. cit.*, p. 124. See the game of T.S. Raicer, *Grand Illusion. Mirage of Glory*, 1914, Hanford CF, GMT Games, 2004, which rewards the players not for the implementation of an optimal strategy but for the execution of the plans of staff developed before the start of World War I.

³⁷ P. Sabin, *op. cit.*, p. 122.

³⁸ “Three quarters of the factors on which action in war is based are wrapped in fog of greater or lesser uncertainty” (Von Clausewitz, *op. cit.*, p. 101).

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of players. The board game can be output by masking chips or ignorance of enemy cards (and cards that the player himself will receive in future hands). However, the basic intentions are unknown to the opponent and often the very fact of its existence fully compensates for the lack of other mechanisms to create a “fog of war.”³⁹

The problem of “fog of war” is related to a more fundamental issue — the place, which is attributed to the player in the historical reality being modelled. Typically, game authors themselves perceive them as simulations, in which players “fall” into the role of chief commanders. Mark Herman, creator of game ‘For the People’⁴⁰ recreating American Civil War, believes that players take on the roles here of Abraham Lincoln and Jefferson Davis, or maybe their political offices.⁴¹ It should be clear that the intention was largely unsuccessful. The game not only simulates the conditions in which decisions were taken (even limited access to information) but allows players to take those that were certainly beyond the reach of offices, for example by playing cards by the Confederate command, which represents poor decision undertaken by Union generals. It seems that Sabin has made some great insight — the player simulates no one but is an element introduced to the model as a decision-making factor, such as a die used to cast a randomness and rules to give a deterministic factor.⁴² This position allows you to understand how one player can make better decisions at different levels of their own command structures and even adverse decisions made in the camp of the enemy. In some games, the player is secondarily limited by the ability of their employees — for example, the proper ratio of the initiative or stating the cost of their decisions in accordance with the will of the player.

A “war game” is always a model; however, it can be modelled in a fantastic or historical reality. The choice is not always the same. Only some creators of games and entertainment on historic titles consciously seek to model the historical reality, and even here the main purpose of the game is “entertainment.” However, if conducted fairly, research designers of “war games” are not limited to just facts. On the contrary, the medium of the game, much stronger than the development of the narrative, forces consideration of the relationship between facts, statistics, etc. The regular view of

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39 P. Sabin, *op. cit.*, p. 111.

40 M. Herman, *For the People. The American Civil War 1861–1865*, Hanford CF, GMT Games, 2006.

41 M. Herman, *Card Driven Games*, p. 28.

42 P. Sabin, *op. cit.*, pp. 102–103.

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the game designer must be wider than the creator of the historical narrative, focusing on the choice by the thread of history. It must constantly ask itself about possible versions of events and seek information to allow for an analysis of such counterfactual versions of history. In contrast to the creator of the historical narrative he cannot, in the event of failure, just abandon the transmission of information but must in the best possible manner reasonably “estimate” missing data.

Unfortunately, the kindness of board games publishers does not extend so far as to allow their authors to publish a critical apparatus to defend their research.⁴³ This situation makes it impossible, unfortunately, yet easy to distinguish the game, behind which stands many months of historical studies from the game based on very superficial over-thinking a subject. The main problem is the tension between the desire to accurately model the historical reality and the necessary simplicity of the model. This stems from the very essence of the concept of “model”, which is not a copy of reality but one of its simplifications that can be understood by the human mind. The problem is that while the historical narrative does not create a coherent model and can afford a very detailed treatment of some of its aspects at the expense of others, the modelling of reality by the game forces one to undertake a far-reaching simplification of all completion relationships. Hence, even with the most detailed games there can be claims regarding the unacceptable way it simplifies the modelled reality. One quality that stands in the way of the growing complexity of the model is the so-called “playability.” The game must play in a certain way, without causing fatigue over time (although for experienced hobbyists the norm is to play a game for many hours, and the most persistent are not deterred by playing for a number of days) or contain clear instructions so that players do not have to constantly reach for the rule book. The game should run smoothly enough to deliver gamers satisfaction and thus encourage their maximum mental effort and potential.⁴⁴ Given these demands, the creator of the game, even though he

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43 How it might look, shows Sabin’s work revealing only one of his systems, which is devised by him for a very simple modelling of land battle of the ancient world — it has 250 pages, of which roughly 40% is devoted to the way of analysis of the sources to build the model and the remainder discusses its application to 30 individual battles (P. Sabin, *Lost Battles. Reconstructing the Great Clashes of the Ancient World*, London–New York 2009).

44 To those who first come into contact with the world of war board games, they may be amazed at how far game developers are ready to depart from the requirements of “playability” for historical realism. Perhaps the era of monumental games that even the designers never managed to play in full (a good example is R.H. Berg, *The Campaign for North Africa*, New

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is aware of the complexity of factors influencing the course of events modelled, must focus on those few which, in his view, play the most important role and treat the others to very simple mathematical relations of statistical rules (roll of the dice) or even reducing them completely (treating them as irrelevant at the level at which the game is played). In fact, as indicated by Sabin, the effectiveness of the model in the study determines the multiplicity of tests, so a simple game played often will have an advantage over more complex games played out occasionally.⁴⁵ Therefore, he advises to focus a game on one level of historical reality, and its multi-level character giving by multiplicity of games — he himself developed five sample games about ancient warfare, coming down to lower and lower levels of detail, from a cross-cutting struggle for dominance in the ancient world to the clash between individual warriors.⁴⁶

The process of creating the game of war is prolonged. Drawn by the author of the model, it is subject to multiple tests, aimed at, in the case of gaming history, not only developing balance and achieving satisfactory “playability” but also checking how possible it is to repeat the historical decision-making in the historical course of events. A paradox of successful war games is the fact that this process does not end with publication. The creator remains in contact with the players, who ask him questions, pointing out, for example, gaps in the rules or imperfections in the modelling of historical facts, sometimes forcing the author to prepare a new version of the rules.⁴⁷ As we shall see, testing and discussions are also essential models for research applications.

RESEARCH BENEFITS FROM BUILDING “SIMULATION MODELS”

Philip Sabin shared the benefits that constructing “simulation models” can bring to history, particularly “education” and “research.” Regarding the former, the matter does not seem controversial.⁴⁸ The use of games and

York, Simulation Publications Incorporated, 1979) is nearing an end but still games are considered moderately challenging if you can play them in six hours, and the manual does not exceed 20 pages.

45 Sabin, *Simulating War*, *op. cit.*, p. 30.

46 Sabin, *op. cit.*, pp. 135–137.

47 P. Sabin, *op. cit.*, pp. 128–130.

48 P. Perla, p. 9, P. Rohrbaugh, "Class Warfare. Simulation Games and Learning", *Against the Odds* 21 (2008), pp. 31–33, P. Sabin, *op. cit.*, pp. 41–42.

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simulations in the teaching process has long since ceased to be a novelty. “War games” are not classified as an easy medium to use in this role because of their time and intellectual demands. However, their benefits are visible at a glance: transmission in a very accessible way of knowledge comparable to that conveyed by popularising books, forcing independent considerations on the relationship between facts, encouraging experiments with counterfactual history, not to mention the inspiration to seek further information on a specific topic. Sabin’s academic experience clearly shows how beneficially the study of games affects the final result of the work of students. Of course, the question of whether these realities would be feasible to use in Polish universities should be asked. but this is a completely separate issue.

What is most fascinating and most controversial is the requirement to use “simulation games” in historical research. Sabin outlines six weighty arguments in favour of this idea. The first four point in various ways to the fact that building a model reality game may contribute to ordering a result of historical research.⁴⁹ The last two show how this activity can be part of the research itself, increasing our knowledge of the past.⁵⁰

Consider the first issue. In the previous section, “war games” were laid out according to their components. We see that there is a place for facts, “hard data,” represented by the clear definition of space and time, agents and events. The rules of the game, in turn, define the relationship between facts, determining both deterministic and probabilistic regularities. With their help, we can give agents necessity and chance in history. Finally, the players bring to the model those decisive factors shaping the role of human will in history. All of these factors must be related to one another in a closed, internally consistent system — tests sooner or later mercilessly expose its vulnerability.

As demonstrated by Sabin’s teaching experiment, the construction of such a system may in itself be a research process.⁵¹ In fact, describing the history through a narrative text in a way models a reality, too. A model in the form of a game, however, has the advantage of not abolishing the gaps, and requires a lot more discipline from developers. The necessity of hypotheses in a place where the source does not give us a definite answer may a first glance be considered a doubtful blessing, but one can also say that the

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49 P. Sabin, *op. cit.*, pp. 59–62.50 P. Sabin, *op. cit.*, pp. 62–63.51 P. Sabin, *op. cit.*, p. 43.

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model itself is a sort of tool to check these hypotheses, forcing logical consistency among the assumed facts of the whole. Discipline is imposed on the historian's thoughts, which seems to communicate that even the best studies are often lacking. This prevents the skipping of questions which in published books are neatly removed at the margin by the author's stylistic abilities. Finally, it moves to the fore the relationship between the events that easily replace the purely descriptive approach. It is entirely devoid of ideological baggage that causes more modern historiographical trends to invent new, trendy categories for the description of historical reality without checking what the consequences of their adoption outside the described slice of history may be.

All these benefits can be considered not sufficient to justify the use of "simulation games" in historical research. Accordingly, a careful, analytical mind could gain similar results without the use of a prosthesis in the form of the game. In itself, the game does not seem to extend our knowledge of its modelled reality. Analytical study can only lead to a deeper knowledge of the model and the assumptions made by the creator. The game, like a computer model, can be used to check the logical consistency of these assumptions. Such an attempt however, would lock us in a vicious circle.⁵² Of course, in the case of the model that is a game, we have to deal with a variable in the form of players' decisions. Undoubtedly, game play as well as analytical comparison of the results is the proper way to use it. How then, as a comparison of the mass of "alternative histories", can this serve our knowledge?

Sabin's last two arguments indicate the usefulness of the game in the "spectrum of possibilities" of events in the past and provide experiences to build models aimed at future events, at anticipating what was yet to come, and making the right decisions. Note that in both of these cases the object of knowledge is not a reality but a possibility. Although the ambition of "simulation games" is to model reality, each game is a realisation of hidden possibilities in the model, an alternative "scenario of events". Players reflections in post-game discussions (debates distinguishing "wargaming" from

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52 P.E. Tetlock, A. Belkin, "Counterfactual Thought Experiments in World Politics: Logical, Methodological and Psychological Perspectives", in: P.E. Tetlock, A. Belkin (eds.), *Counterfactual Thought Experiments in World Politics: Logical, Methodological and Psychological Perspectives*, Princeton 1996, pp. 12–13.

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other types of games) relate primarily to the impact of decisions taken and a random factor to the game play.⁵³

Sabin compares the game to tools that make possible, even in an imperfect way, to predict the weather.⁵⁴ This metaphor, however, raises a fundamental question — why do we need weather forecasts of the past? Games can be useful for generals as a way to prepare them for a future war, and for managers as a way to prepare them for decisions to be undertaken in the future, but is their developed knowledge of the past useful to someone who knows these realities? In response, one can first raise the value of the model to predict the past weather to better construct a model to predict the future. Its advantage is the ability to correct errors in design by knowing the actual course of events. Regarding war games centred on the past, the American military recognised this role, giving experienced designers of these historical, entertaining games the task of constructing other games to simulate future conflicts.

What values can a reflection on “possible history” have for a historian? Deterministically, directions of historiography, for better or worse, hide such considerations as the expression of assigning a significant role to the events of human will.⁵⁵ The counterfactual reflection in history moreover, often discredits itself, renouncing even the semblance of accuracy and replacing “What if?” with the nostalgic “If only ...”⁵⁶ On the other hand, denying the counterfactual method of any scientific value is a total misconception. Any question about the cause is essentially counterfactual (what would happen if you removed, weakened or strengthened a factor) and this fact is recognised as evident by both the natural and social sciences.⁵⁷ Without a counterfactual thought experiment there is no way to distinguish causation from

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53 P. Perla, *op. cit.*, p. 167.

54 P. Sabin, *op. cit.*, p. 63.

55 J. Black, *What if? Counterfactualism and the Problem of History*, London 2008, spp 5–10, 40–41. Charges against historical counterfactualism are referenced in A. Demandt, *Historia niebyła. Co by było, gdyby...? [Ungeschehene Geschichte. Ein Traktat über die Frage: Was wäre geschehen, wenn ...?]*, trans. M. Skalska, Warszawa 1999, pp. 11–16.

56 J. Black, *op. cit.*, p. 5. Aleksander Demandt cites a number of counterfactual scenarios in history constructed by the “big names” of history; he inadvertently provides examples of the wildest imagination that the only value is to reveal the longings and ideological prejudices of authors (A. Demandt, *op. cit.*, pp. 83–128).

57 P. E. Tetlock, A. Belkin, *op. cit.*, pp. 3–4, A. Demandt, *op. cit.*, pp. 18, 23–27, J. Black, *op. cit.*, p. 16.

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mere coincidence.⁵⁸ Departure from counterfactualism leads to a purely descriptive history, scouring the ambition of understanding the reality described.⁵⁹ On the contrary, counterfactualism brings history closer to the operational experiments of science.⁶⁰

It is necessary to distinguish between counterfactual methods for verifying hypotheses with methods of determining the “spectrum of possibilities”⁶¹. The former relies on the mental manipulation of a specific factor in the total abstraction from the category of “opportunities”. The prominent, though controversial, work by Robert Fogel, a Nobel laureate in economics was able to assess the impact on the development of the U.S. economy through the hypothetical elimination of this factor with a total indifference to the question of whether railroads in the United States could not arise.⁶² The second type of counterfactualism is the attempt to answer the question of what was possible. Of course, there is the controversial transfer of category opportunities in the past. It can be argued that these occurred possibilities are not more or less likely, but, as they have not happened, they are all equally false.⁶³ Note, however, that a similar status is the ability of the future to the fact of the future — the difference lies only in the random position of the observer at the time. Augustine already showed, however, that the existence of an observer external to the time, for whom all the facts are equally real does not rule out the freedom of the decision taken in the time or the reasonableness of considering their possible consequences.⁶⁴

Designating an objective “spectrum of possibilities” is not intended to build “alternative worlds” but to analyse the real situation of decision-making.⁶⁵ The fundamental domain of “simulation games” is exactly this kind of

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58 G. King, R.O. Keohane, S. Verba, *Designing Social Inquiry*, Princeton 1994, pp. 75–114.

59 A. Demandt, *op. cit.*, p. 48.

60 J. Black, *op. cit.*, p. 31.

61 In Tetlock and Belkin’s intricate classification it would correspond to the division on nomothetic and idiographic counterfactualism. (P. E. Tetlock, A. Belkin, *op. cit.*, pp. 6–10).

62 R. Fogel, *Railroads and American Economic Growth: Essays in Econometric History*, Baltimore 1964.

63 These are probably the metaphysical foundations of the opinion that all counterfactual considerations “are equally absurd, because they are equally hypothetical” (D.H. Fisher, *Historians’ fallacies: Toward a logic of historical thought*, New York 1970, p. 19).

64 Augustine, *De Libero Arbitro* III.18. The Augustinian doctrine of predestination had no roots in the concept of timelessness of God but (in the theological aspect) in the concept of Grace and (in the philosophical aspect) in the concept of God’s omnipotence.

65 A. Demandt, *op. cit.*, pp. 20–23.

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counterfactualism, though of course they can also become a tool for testing hypotheses.⁶⁶

In fact, in both cases, the lack of proper tools was by far the main obstacle in making counterfactual speculations in the field of history. Historians can point to a useful, thought-provoking and disciplinary tools for speculation but far too much depended on the own arbitrary decision of the researcher, in which direction to run his fantasies.⁶⁷ There was also no way to check the consistency of the resulting alternative vision of events. In this role “simulation games” may be difficult to replace, under the condition, of course, that the construction of these games will include demands placed on “counterfactual thought experiment”⁶⁸. The spectrum of “alternative history” in the game is limited to those possible within the model, which, as we recall, make the most of putting our knowledge of the actual conditions of a given decision-making. While this may be the subject of a dispute if discipline, which the game imposes, is useful in the description of events that actually happened, in the description of events that could happened it is hard to replace with anything. Repeatedly played “simulation games” have the ability to show us the range of possible, more or less probable scenarios and determine within it the place of real course of events, thereby estimating the importance of actual decisions.

In contrast to counterfactual thought experiments the accuracy of “simulation games” can be verified and this is their advantage. It is worth mentioning here a concrete example. Philip Sabin developed the “simulation model” of the ancient land battle in which one of the scenarios reflects the battle of Cannae. In this scenario, he assumed that the leader’s initiative, expressed by a number of orders possible to be given, is much higher on the side of the Carthaginians than the Romans. Introduction to this particular

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 66 P. Sabin, *op. cit.*, pp. 55–56. Jeremy Black, a leading counterfactual theorist, is fully aware of the role of “war games” but unfortunately, devotes only three paragraphs to a phenomenon known to him only from the period of his youth (Black, *op. cit.*, pp. 23–24).

67 P.E. Tetlock, A. Belki, *op. cit.*, pp. 16–31, A. Demandt, *op. cit.*, pp. 50–81, R.N. Lebow, “What’s So Different about a Counterfactual?”, *World Politics* 52/4 (2000), pp. 550–585.

68 Among the postulates proposed by Tetlock and Belkin, the most telling and applicable here seem to be the reconciliation between reflection with well studied statistical regularities and well established scientific theories, and of course support of the known historical facts (P. E. Tetlock, A. Belkin, *op. cit.*, pp. 23–30). Three further postulates (the possibility to observe the effects of the change in one variable, logical coherence, and the possibility to project conclusions onto similar cases, *ibid.*, pp. 19–23, 30–31) seem to be fulfilled in any properly constructed game in an obvious manner.

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mechanism proved to induce the Romans to tactics which historically led to disaster — trying to break up the Carthaginian centre with the mass infantry. All the other decisions undertaken by the Roman player turns out to be, under given assumptions, a further exposure of his army to defeat.⁶⁹ Can this explanation be adopted by ancient military historians? Probably not all. But in the case of Sabin's experiment they are able to identify what mistakes he made in the construction of the model (a construction which is explained in his 250 page work "Lost Battles"). Thus, the counterfactual speculations of the British historian become verifiable and so fulfil the condition faced by the scientific theory of Karl Popper.⁷⁰

As a tool, the counterfactual "simulation game" experiment still contains one considerable advantage — it is a model possible to describe by mathematical language.⁷¹ Thus, the experiments carried out with the help of this tool bring the history closer to the natural sciences. One must remember the pivotal role in the transition of biology from a descriptive knowledge to science, played by the discovery of the possibility of mathematical description of biological processes!⁷² Of course, one can peremptorily argue that the mathematical description of the conditions of human decisions is impossible in its very essence and the difference in relation to the natural world here is impassable. It is certainly not a coincidence that simulation games have proven themselves in a field in which choices are relatively simple — the vast majority of generals seek victory in any way possible. The appearance of religious rivalries certainly requires more subtle mechanisms.

Of course, we must remember that "simulation games" do not answer all possible questions, and in cases when they do it, the answers are subject to a greater or lesser risk of error. If we return to the metaphor of weather forecasts then Sabin rightly points out that they are the more certain the less distant time is concerned. Distance is not only time — the less the alternative course of events in the game differs from the real one, the less arbitrary assumptions imposed on the model charges its outcome.⁷³ Finally,

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69 P. Sabin, *op. cit.*, pp. 78–79.

70 K.R. Popper, *The Logic of Scientific Discovery*, New York 1968, p.252.

71 Carl von Clausewitz protested against the "mathematical" comprehending of war, noting that the role of chance and human decision (Clausewitz, *op. cit.*, p. 86), however, he did not foresee that both of these factors can also be described mathematically.

72 H. Füller, *Das Bild der modernen Biologie*, Leipzig–Jena–Berlin 1981, p. 17.

73 P. Sabin, *op. cit.*, p. 63.

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we must reiterate that the details of the “alternative history” are of interest to the researcher only in so far as they help him understand the importance of the decisions actually taken.

THE FUTURE OF “SIMULATION GAMES”

Observing with concern the growing tendency of complications of war games in 1977, American hobbyists outlined a satirical picture: “the ultimate wargame”, in which every soldier of World War II will be marked by a separate piece.⁷⁴ Fortunately, the publishing market forced the game designers to moderation when it came to increasing complexity and size (and price), and although the duration and length of the rules of today’s most popular titles can scare laymen, the efforts of designers are more in the direction to simplify more and more accurate the modelled reality. As pointed out by Sabin, the amount of information does not determine the success of the model. In fact, similar requirements can be put before it as before a book — it must be possible for the user to understand it. Whether the models offered by the British researcher are optimal in terms of complexity can be discussed.⁷⁵ But it is hard not to share his alarm when he speaks of the monumental project at the University of Birmingham. The team of historians and computer scientists, working there on a fateful computer model for the history of the Byzantine Emperor Romanos Diogenes’ campaign in the year 1071, are attempting to define every single soldier and to track their behaviour.⁷⁶ The scant information provided by the University does not allow a clear assessment of the reasonableness of the cognitive project to be made, assuming a large commitment of resources and computing power. In contrast to such monumental computer illustrations, the Sabin’s paper games may seem ridiculous, but it is easy to see that they have one, at first glance, apparent advantage — they do not a substitute for the decision-making element with the mathematical calculation.

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 74 C. Starks, “The Ultimate Wargame”, *The General* 13/6 (1979), pp. 23–25.

75 More so since the important parameter was not scientific, but practical — the game was to have the appropriate duration, so that it could be played in the ongoing 150 minutes of academic classes (P. Sabin, p. 42).

76 P. Sabin, *op. cit.*, p. 135. The project, initiated by Vince Gaffney and John Haldon, is entitled MWGrid: Medieval Warfare on the Grid (<http://www.cs.bham.ac.uk/research/projects/mwgrid/>, accessed on 26.07.2012).

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The role of computer technology in the development of “wargaming” is certainly worthy of attention. A dubious merit of computers is the “democratisation” in the wargames market which took place at the expense of a drastic reduction in the cognitive and intellectual requirements. Although in the 1990s a number of successful computer “war games” were created, eventually the market was flooded by “battle simulators” which — from the military point of view, indicates Sabin — usually in no way simulate battlefield dilemmas and merely encourage fun in spectacular slaughter.⁷⁷ Other sins of computer wargame creators include their one-sided focus on the fantastic possibilities of computer animation, and even the best game’s desire to reclaim the insight into the essence of the rules combined with back-filling it with hundreds of unnecessary details. The tendency to conceal information, for the sake of the above-mentioned “fog of war” factor, may be at first glance beneficial. However, it deprives the user of a more complete insight into the current state of the model — necessary for the preservation of the cognitive value. Finally, a very apparent blessing is to replace one of the players with computer programs. This can be checked and devoid of the psychological dimension as in the game of chess; however, in war games in which a huge role meets such factors as imagination, the ability to anticipate, bluff and counter-bluff, emotions, and the ability to interact with it, the computer program turns out to be helpless.⁷⁸

The computer has undoubtedly improved the design possibilities of war games — it is not only about the material elements of the design itself, but also the collection and analysis of data, especially the use of computer power to estimate the mathematical regularities that we want to introduce into the model. The computer also streamlines the process of communication between players as well as to players from the creator, and even allows virtual games at a distance through such modules as Vassal or Cyberboard.⁷⁹ In contrast, a further step is the transformation of the classic game into a computer version, but this carries a serious threat. Between the creator and the model there is also a third person — a programmer who “translates” it into programmic language. This, however, entails a loss of contact

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77 P. Sabin, *op. cit.*, pp. 23–24.

78 It is true that players often play games “with themselves” — companies produce games to even determine the factor of “solitaire suitability” for them (P. Sabin, *op. cit.*, pp. 20–21, 114–115), but in this case the role of the opponent is one’s own imagination, not an unimagi-native program.

79 P. Sabin, *op. cit.*, pp. 275–280.

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between both the creator and future players.⁸⁰ And yet, as I mentioned above, a simulation game is never a finished product — the process of testing it is not a logical conclusion and at the same time it must be understood as an appropriate cognitive process. Undoubtedly, computer technology allows the construction of more subtle models, provides more closely balanced mathematical relationships, enables simultaneous movements of troops, more sophisticated techniques of bluffing and concealing information — all this, however, cannot take place at the expense of the transparency of the model. If, contrary to the demands of the mass audience, computer games meeting the conditions of “simulation game” appear on the market, to a degree similar to modern board games, these games will be designed by programmers with great understanding not only of the history but also of the creation of board war games.

Even when it will happen in the future, the simulation “war games” will probably remain a niche form of entertainment for a small group of “over-educated” people. In a study of American environmental enthusiasts of the hobby, it was found that more than half of them have had at least 16 years of education.⁸¹ The opinion of the average person on the subject is and probably will remain extremely different. The term “game” for a person, who parted with similar visual forms of entertainment in kindergarten, suggests withdrawal of the players to childhood in intellectual and emotional development. The term “war game” suggests, worse, the transformation into entertainment of the innumerable suffering that war brings.⁸² If “war games” have not yet become a victim of a political correctness campaign, it probably stems from their very modest importance and not with the awareness that, in contrast to war fiction or film, they are completely intractable to the temptation to shock cruelty and not in recognising it as a form of entertainment unfit for the transfer of ideological content.⁸³ All this applies

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80 P. Sabin, *op. cit.*, p. 26. All of these computer game shortcomings have contributed to the fact that, contrary to expectations, they have not supplanted their classical predecessors in the market (P. Sabin, “Computers and the Strangely Prolonged Demise of Board Wargaming”, *Battles* 6 (2011), pp. 87–88).

81 J.F. Dunnigan, *The Complete Wargames Handbook: How to Play, Design and Find Them*, New York 1992, pp. 87–88.

82 P. Sabin, *Simulating War*, *op. cit.*, p. XIX.

83 P. Sabin, *Playing at War*, *op. cit.*, pp. 214–216, P. Sabin, *Simulating War*, *op. cit.*, pp. 162–163. Regarding the peculiar objections raised regarding the near hobbies see M. Chlipała, “Wargaming i rekonstrukcja historyczna w polskich realiach”, *Zabawy i zabawki* 9 (2011) nr. 1–4, pp. 43–62.

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even more to Europe than the United States, in Old World historical “war games” are an exotic product from overseas, out of reach even in specialty stores or at best, hidden behind stacks of family games or simulation games played in a fantasy world.⁸⁴

To the opinion of an academic historian who has not had a close encounter with this rare hobby, it may be little different. Even players who are also historians will probably approach my discussion with plenty of reserve. They indicate easily the elements of known by them historical games that mistakenly model or even deliberately distort the historical reality. But nowhere in this article does it say that any existing game, which is at best a compromise between scientific ambitions and the need for entertainment, is the right model for conducting historical research. or is ideal. Rather, actually existing wargames consider a wealth of ideas which the designer of a game suitable for historical research can take advantage of. If you ever come to publish a game as a tool constructed specifically for historical research, it will not be identical to the products of the entertainment industry. It will remain, however, a rewarding game because only such a game can force long-term attention and maximum experimental involvement.⁸⁵

translated by Paweł Markiewicz

Summary

Many commentators have observed a resemblance between the phenomena of “war” and “game.” As Philip Sabin argues in his book “Simulating War. Studying Conflicts through Simulation Games,” modern wargames not only feature considerable amounts of historical data but also arrange them into interactive models designed to reflect historical processes in a simplified manner. The present article attempts to elaborate on Sabin’s observations indicating how various aspects of those processes are represented by particular elements of games, including the players who are an indispensable part of each game. Such interactive models can be used in education as well as for the purpose of historical research, complementing the discourse with simpler, but at the same time more holistic and mathematically strict, historical accounts and providing a tool that would impose some discipline on counter-factual

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84 I am not suggesting an absence, also in the Polish market, of the products of domestic wargaming companies (it’s worth to mention “Taktyka i Strategia”, “Leonardo” and “Los Diables Polacos”) or translations of some Western titles, but the possibility of contact with these products for people who do not belong to the hobbyist community is minimal.

85 P. Perla, *op. cit.*, p. 8.

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speculation. However, such models should be developed on the pattern of modern board wargames, rather than computer games, because the creators of the former type tend to pay more attention to the realistic modelling of historical processes.