After All, Caesar Never Was a Quitter: Struggling with the past in early game design

Corine Gerritsen
Leiden University
Rapenburg 70, 2311 EZ Leiden
c.t.gerritsen@hum.leidenuniv.nl

Angus Mol
Leiden University
Rapenburg 70, 2311 EZ Leiden
a.a.a.mol@hum.leidenuniv.nl

ABSTRACT

This study employs qualitative tagging using ATLAS.ti to examine game design processes during the dawn of digital games, an understudied period in video game history. It addresses fundamental questions in the field of "historical game studies": what game design elements communicate a setting in the past and what are the forces that shaped them? We use *Legionnaire* (1982), by prolific game designer Chris Crawford as a case study and we analyse how the past has been shaped in this game, using Crawford's own writing, the manual and gameplay. This study sets out to bring to the fore how designers' considerations, restrained and enabled by technologies, shaped a genre and its development. The paper contributes to our understanding of the creation of games from history and creating playable histories as a continuous dialogue between the past and present-day concerns and the field of tension between them.

Keywords

Historical Games, Qualitative Tagging, Game Mechanics, Strategy Games, Early Computer Games

INTRODUCTION

"The Romans were shattered. The hundreds of new recruits panicked at a rear attack by a feared enemy. Sabinus cried as he bled from his wounds. Not because he cherished his life and wished to live, but because he had come so close to pleasing Caesar and now he would never have another chance to be the legionnaire he had dreamed of as a young boy." (Willett 1982, 27).

Proceedings of DiGRA 2025

Figure 1: *Legionnaire* gameplay, blue horse heads indicate "barbarian" cavalry, pink swords, horse heads and the eagle indicate infantry, cavalry and Julius Caesar respectively.

This excerpt from a review of *Legionnaire* (Microcomputer Games 1982) shows how even early digital games, elementary by the standards of historical games today, were able to provide a remarkable experience of a vivid (hi)story about a poor and crying Roman general, Sabinus, despite their sparse visuals, simple mechanics and limited hardware (Figure 1). In this paper, we investigate the game design process of an influential early digital game and how, through 'simple' design, ideas about the past and Roman history are marked to its players. We refer to developer Chris Crawford's extensive writing, *Legionnaire* gameplay, its manual and directly associated paratexts, including primary sources, to gather and, using qualitative coding with ATLAS.ti, tag information about the design process of the game and the choices Crawford made. The design elements we identified show how this complex historical and design process gives rise to a present past in this early example of a historical video game. In short, this paper uses an in-depth look at early video game history to address questions at the core of historical game studies. In the following, we aim to contribute to our understanding of early game history and the developer approaches at this vital time.

The field of "Historical Game Studies" is continuously growing and includes an increasing number of approaches, methodologies, and objects of study. Some studies analyse specific renderings of the past, based upon genre (Salvati and Bullinger 2013; Apperley 2018; Grufstedt 2022), specific games (Dow 2013; Mol, Politopoulos & Ariese-Vandemeulebroucke 2017; Flegler 2020; Machado 2020), or historical period (Van Den Heede 2021; Rollinger 2020; Houghton 2022). Another important part of the discourse centers around the ways in which popular media (re)create the past and their relationship with concepts of accuracy and authenticity, denoting a certain attitude toward the relationship with the past. For instance, Adam Chapman employs the concept of *historical resonance* to discuss the players' understanding of the link between a game's historical 'representation' and a larger historical discourse (Chapman 2016, 36). Others focus on the players' perception of game elements in facilitating historical recognition, or player expectations built upon formal and informal exposure to history (Apperley 2010, 22; Elliott 2017). The analysis of these concepts demonstrates how games let players experience 'historying', creating counter-histories, and exploring what type of historical arguments the game

mechanics allow for (Chapman 2016; Houghton 2018). All of these approaches and theoretical concepts focus mainly on ideas of players as historians, on game makers as historians or on the processes of history emerging from these games. The questions posed to video games portraying the past thus originate from a diverse array of approaches and backgrounds, resulting in a broad scope of inquiry. All these studies share one underlying notion: They all recognize the object of their research, the video games, as 'historical', to a greater or lesser degree. This raises the question: What game elements communicate that a game is historical?

To address this question, we focus on the game design process and the ideas and decisions that lay at the core of this process. Game creators' intentions can be a contested topic for research as it is difficult to determine their aims with certainty. At the emergence of early digital games, however, game development largely hinges on a few people and technologies, unlike the relatively larger apparatus that is conventional in the present. This makes the documentation of the ideas and decisions of an influential game designer such as Crawford particularly fruitful for investigation. Moreover, within game studies as a whole, there is growing interest in game designer approaches (e.g. Wardaszko 2018; Cormio et al. 2024), as well as within historical game studies specifically, such as Ylva Grufstedt who takes the game design processes, practices and principles as a starting point to discuss counterfactuals (2022). Our study adopts the same starting point, the design process and the developer, but it engages with different material and employs another focus. Early game history, though an important time in the emergence of historical video games, and influential for years of game design, is still understudied. Some who engage with this material highlight the use of early digital games in educational context (Egenfeldt-Nielsen 2005), others employ a critical historical approach, centring their research on the history of games themselves (Lowood and Guins 2016). John Aycock writes about the constant constraints on developers in *Exploring Old Computer Games*, and notes how these exact limitations drive creativity at the same time (2016). He approaches the games from a hardware perspective and demonstrates what software solutions programmers came up with to deal with the challenges. Our paper highlights certain constraints in the development of *Legionnaire*, but our focus is not so much technologically oriented, rather, we emphasize the developer and his understanding of the past since Crawford's notion of history shapes *Legionnaire* just as much as his views on game design. By using qualitative tagging with ATLAS.ti, we focus on the design elements Crawford uses to express his ideas of the past, how he employs those elements to create a historical setting, and the challenges and limitations he faced within the process. All these aspects point to the complex dialogue between the past and a developer of the present-day past.

We chose Crawford's *Legionnaire* for this case study, because of the unique qualities of both the game and the designer himself. As a prolific and famous game developer and innovator, a founder and hall of fame member of the Game Developer's Conference and as author of several popular game development textbooks, Chris Crawford looms large as a figure in computer game history. Although *Legionnaire* itself is little known today, at the time of its release it was part of a significant change in strategy games, moving from the turn-based, sequential format (as taken from older analog wargames) to real-time, synchronous unit movements. *Legionnaire* joins other games created by Crawford, with significant technical development that proved influential for game designs that came after. At the same time, *Legionnaire* is lodged at the very roots of historical digital games, featuring digital Romans for one of the first times and it manages to remake history and take hold of players' imaginations

with limited game design elements, as is evident from reviews at the time (Willett 1982; DeWitt 1983; Tommervik et al. 1983; Trunzo 1983; Stanton et al 1984).

While most of the early digital games have long been forgotten by players nowadays, the way they handled history laid the foundations for historical games to come. Moreover, Crawford was one of the most influential game designers at the time, and his ideas and designs influenced a myriad of games. In *Legionnaire*, players take on the role of Julius Caesar in a real-time, top-down strategy game. The ever-popular general from antiquity must face off against the "barbarian hordes" eager to defeat the Roman legions.[1] The game does not portray a specific historical battle, instead, it takes inspiration from Roman wars in Gallia, Germania and Belgica. As we shall discuss below, innovation in terms of technical, gameplay, and immersive (hi)story design shows Crawford's possibilities and the constraints placed on him. These technological opportunities and challenges were obviously not unique to *Legionnaire*, but are also present in other historical games made by Crawford and others (see also Aycock 2016). Through the focus on Crawford's early historical game, the historical ideas that informed it, and the technological possibilities he used in the making of it, we show how the creation of games from history and creating playable history, is always, and has always been, a continuous dialogue between past and present day concerns and a field of tension between them.

METHODOLOGY

To identify how Crawford's design communicates ideas of the past within the game, we employ qualitative tagging as a tool for our analysis of four different sources: the writings of Crawford, captured gameplay, the game manual, and *De Bello Gallico*. The ample texts by Crawford offer a useful first-hand account of challenges, decisions, and ideas about the past that played a role within the developer process. The captured *Legionnaire* gameplay serves as another source for analysing the game itself. Additionally, developers relied on physical manuals to convey key information to the players, since technological restraints at the time resulted in sparse in-game texts and visuals. The manuals not only contain an explanation of the workings of the game, but more importantly, they set the scene and create the context and story the gameplay was supposed to represent.[2] To contextualize the historical scene of *Legionnaire*, Crawford made references in his manual to *De Bello Gallico*, the famous first-hand account of the Gallic Wars by Julius Caesar. The text features Caesar's battles and the Celtic and Germanic peoples of Gaul from the Roman perspective.

We used ATLAS.ti for qualitative tagging, i.e. we annotated game elements of the gameplay, manual and paratexts with codes, shorthands for its content. This type of qualitative coding helps to broadly sort the visual and textual data, defines concepts and organizes them. The categorization aids the process of comparing and crosslinking data segments as well as finding denser sets of relations, which gives insight into relationships between elements. Several considerations influenced the codes we employed in ATLAS.ti. Firstly, we coded every element explicitly presented as historical in the game manual. Secondly, for the gameplay, we coded all visual elements perceivable by the player. This was possible since these elements are rather limited in number compared to recent games. Thirdly, we employed historical knowledge of *De Bello Gallico* in the formulation of certain codes, as the manual implicitly refers to Caesar's work multiple times.

This process consisted of several steps. We first familiarized ourselves with the data by reading and watching our sources multiple times. Subsequently, we started coding the data, using the aforementioned considerations. During this first round of coding and after reviewing the quotations —the segments of data a code is attached to— we added new codes that were lacking or updated, merged, or split existing codes. Thus, the process was iterative, as we created and adapted codes when new game elements or relationships were needed in the analysis (see Välisalo and Ruotsalainen 2022 for a similar approach). While this approach of coding in ATLAS.ti is time-consuming, it also grants a conceptual analysis firmly rooted in the data. Moreover, ATLAS.ti, and this method itself, offer great flexibility, making them suitable for not just this game, but for game studies research in general. After another round of coding and reviewing, the iterative process of qualitative tagging *Legionnaire* resulted in a total of 79 codes.

The resulting crosslinked set of codes denoting the relationships between the game elements display complex patterns that require further analysis. The next step in our methodology is to capture the game elements and their conceptual relationship to one another in a relational visualization. We use the software Neo4J to display the network of these game elements used to create a setting of the past. The visualization underlines the complex relationship between the past, the present and the game designer in between, at the very roots of the creation of the past in the digital world of play.

In the following, we present the findings of our analysis using ATLAS.ti, discuss and contextualize relationships between elements and display the elements visually in their network. The complex network of elements also invites a discussion of developer challenges and an appraisal of the solution to several limitations. Conceptually, the existence of the relationship between the historical game design elements has relevance beyond the parameters of the featured case study, as it is suited to the complex nature of understanding historical games.

CHRIS CRAWFORD'S APPROACH TO HISTORY

In many cases, the ideas of early digital game developers are lost in time. Yet this is decidedly not the case for Chris Crawford. Crawford wrote multiple books on game design, such as *The Art of Computer Game Design* (1984) and *Chris Crawford on Game Design* (2003), in addition, he maintains a blog site that contains "about 1800 web pages of material" (Crawford 2022). This material facilitates a unique glimpse into initial designer approaches to history in digital games and the challenges and choices he faced in creating history in a digital gamespace.

We first turn to the mechanics of *Legionnaire*, as Crawford begins designing a game by establishing the main mechanics (Crawford 2003, 285). While *Legionnaire* features mechanics such as real-time movement by giving legions commands, fighting between units by bumping units into one another and sizes of an army, Crawford places most emphasis on a couple of other mechanics. In the manual he introduces the mechanics "Slope effects", "Shock", "Fatigue", "Morale" and "Recovery" as important elements of ancient tactics in the days of Caesar (Crawford 1982). These five important mechanics are also part of our ATLAS.ti codebook.

Crawford's paratexts contextualize the main structure of the game as he begins the story of *Legionnaire* thus: "In February of 1979, besotted with the success of TANCTICS, I resolved to design a new game (...). I looked at a variety of possibilities: a

Battle of the Bulge game, an Eastern Front game, and a Waterloo game. (...) I put the game on sale in May 1979 (...) I sold about a hundred copies" (Crawford 2003, 283). This *Legionnaire* is a predecessor of the case study game, which was not commercially successful and a failure in terms of design according to Crawford, haunting him to make the second version a couple of years later. However, this quote and explanation convey some important approaches to both game design in general and *Legionnaire* specifically. Firstly, the words reflect Crawford's interest in creating historical games, and secondly, TANCTICS would influence the approach to and design of Legionnaire greatly.

TANCTICS is the first game Crawford created. This "wargame" consists of digitized elements through a computer, in addition to analog elements such as a physical map. This game has direct roots in the wargaming community that Crawford actively engaged with, according to his own writings. Hellwig created the first wargame in 1780 (Hellwig 1780; Hellwig 1803), and although many variations were made over the decades, most notably by Reisswitz, these "battle simulations" already introduced elements such as maps, terrains, overlay grids, and unit movements and struggled with issues of "realism" and "accuracy" (Peterson 2016). Wargaming had become popularized and commercially viable at the end of the '50s and some existing conventions were perpetuated and others were established during the surge of popularity in the '60s and '70s (Peterson 2016). These conventions maintained a particular form of historical understanding and the expected attitude of both players and designers. *Legionnaire* displays obvious influences of the long tradition of board war games, such as a map that serves as battleground, terrain effects, and units with various assigned variables (see Figure 2). Designers thus do not only use these mechanics in their framing of the past, the mechanics themselves have roots in the past. Therefore, these mechanics are not specific to one past or history, but are part of the frameworks already present encapsulating multiple pasts.

The ATLAS.ti codes of "Slope effects", "Shock", "Fatigue", "Morale" and "Recovery" were explicitly linked to history in the manual by words such as "Roman", and by the relationship of the mechanics to instances of the codes "Historical Individuals" and "Historical Events." Moreover, in Crawford's own words, these mechanics make the game "true to several important aspects of ancient tactics" (Crawford 1982, 16). At the same time, his texts detailing the design process of *Legionnaire* indicate that wargame conventions played a major role in inclusion of these mechanics.

However, Crawford does not rely on his prospective players to simply accept the presence of these mechanics due to conventions, but makes a distinct effort to make them mark a specific, Roman, past. This attempt reflects the expected attitude of the designers of board war games, which also plays an important role in the final form of *Legionnaire*. Historical settings became a set convention in the '60s as board war games moved away from current affairs and started to look into the past instead (Pat & Kirschenbaum 2016, XV). In Crawford's quote about TANCTICS, it is clear that he only considered other historical battles as a setting for his game.

Figure 2: The wargame conventions shape the core mechanics of *Legionnaire*.

Even more important, the community placed great emphasis on rigorous historical research, expressed in magazines such as Avalon Hill's *General*. These texts frequently cited historical research based on archival documents, boasted expert approval and apologized for historical inaccuracies (Lowood 2016, 89). Other war game developers at the time expressed this preoccupation with historical research as well, as Dunnigan was praised for his "zealous historical research" preferably "from every conceivable source available" (Lowood 2016, 89-90). Crawford was not only active in the wargame community, as he worked for Avalon Hill, *Legionnaire* had to appeal to this exact audience. As one reviewer remarked, *Legionnaire* offered historical gamers "logical and realistic procedures" and he discussed with other players "why a piece would become weak and run away from battle with discussions of shock factors and morale" in historical battle (Willett 1982, 45). This meant that even though the mechanics might be common in wargames in general, it was important to frame them as specifically historical in the manual (Figure 3).

As the section above demonstrates, within the wargame conventions, it is not sufficient to simply declare the mechanics as explicitly Roman. Additional historical elements or (research into) sources would be expected. The patterns that emerged from our ATLAS.ti coding display strong links between the manual and *De Bello Gallico,* expressed in multiple relationships. For instance, Crawford does not only include multiple of Caesar's "Historical Battles" in the manual, he links two of them to the importance of the mechanic "Slope effects" (see Figure 4). The wargame conventions thus shape the core mechanics, which are presented as explicitly historical in the manual, and Crawford includes historical events from *De Bello Gallico* in the manual, which he uses as historical evidence for the importance of the core mechanics. In this case, the Battle of Bibracte and Siege of Alesia serve as events demonstrating the significance of the slope effects in *Legionnaire*. If a player wishes to succeed they should "read the slopes carefully, for a proper appreciation of the effects of gradient is critical to success (Crawford 1982, 14). Crawford elaborates on which Roman leaders would lend themselves best for these slope charges. Importantly, these tactical hints follow immediately after a historical overview of Caesar's battles, in which one of the main events is the battle at Mount Beuvray, where a Roman army was victorious over an army of 130.000 Helvetians. He also named the units that have

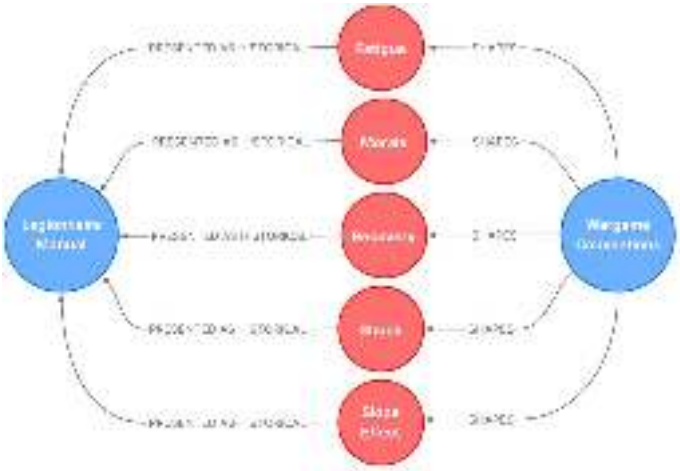

Figure 3: The wargame conventions shape the core mechanics, which are explicitly presented as historical in the manual of *Legionnaire*.

Figure 4: From left to right –*De Bello Gallico* contains historical events that occur in the manual of *Legionnaire*, and some of these are used as historical evidence for the mechanics. The main mechanics are presented as historical in the *Legionnaire* manual, while the Wargame conventions lend them their shape.

various assigned values for "Recovery", "Shock", "Morale" and "Fatigue" after ten Roman generals, and fifteen "Barbarian" tribes Caesar battled. In a final example, Crawford employs the icon of the eagle as a signifier of Caesar himself and assigns the symbol to a mechanic as well. The player loses the game if Caesar succumbs to barbarian troops, or, defeat is final when the player loses the eagle. The Romans, and Caesar himself in *De Bello Gallico*, placed a lot of symbolic value on the eagle of a legion. It brings great shame to lose the eagle and this should be avoided at all costs. This simple visual element and game mechanic echoes the detrimental loss of a Roman eagle.

As our data analysis shows, Crawford used a number of game elements to express a setting of a Roman past which are mainly textual. Within the gameplay itself, the

player can encounter the names of ten Roman generals and fifteen tribes of antiquity. Visually, a sword or horse's head represent different units, indicating that the battle takes place in the past. The eagle is a specific icon, as it represents Caesar. It is associated with the Romans and losing the eagle means the game is lost. The game manual contains more elements that Crawford uses to mark the past. Namely, the names of an additional four individuals and three barbarian tribes, historical battles, a timeline and words associated with Romans such as "legion" and "gladius". However, the elements do not just appear as separate elements, but the relationships between them point to a more complex network of design elements, as we discuss below.

CAESAR SHAPES HIS OWN MECHANICS

"If you press this key, the computer will assume that you made an inadvertent error (after all, Caesar never was a quitter) and offer you a second chance" (Crawford 1982, 3-4).

Crawford has always advocated for historical and philosophical research when creating a game about the past. He explicitly encourages future game designers to read books: "If you think that you can learn enough about the world to design games without doing a substantial amount of reading, you're never going to amount to anything!" (Crawford 2003, 124). His recommended shortlist contains titles such as the *Iliad* and the *Odyssey* by Homer, the *Socratic Dialogues* by Plato, *Meditations* by Marcus Aurelius, and *Poetics* by Aristotle (Crawford 2003). For one of his other games, *Rommel versus Patton* (Electronic Arts 1986), he states "I acquired and read about 15 books as part of my research and consulted another 12 that I already acquired and read". While he does not include the books he consulted for *Legionnaire*, we can assume he read Caesar's *De Bello Gallico*, in line with wargame expectations and his own love for ancient primary sources.

As we mentioned before, all of the Roman generals of *Legionnaire* are present in *De Bello Gallico* and are assigned different values in the game, and in addition, Crawford provides the player with a short description of each unit. By tagging the values and descriptions, we encountered the strong link with Caesar's report of events and how his words shape the digital counterparts of historical figures and peoples. The connection with *De Bello Gallico* is deeper than simply inspiration. The different strengths and weaknesses of units, how well they can recover from shock, the level of their morale, how quickly they tire, are all informed by the description of the historical general. Of course, Caesar did not solely describe his generals and the barbarian tribes in terms of these types of statistics, rather, Crawford assigned values to them based on their overall military performance. A good example is Sabinus, who is the weakest general in the game, or in the words of the manual "a disaster". In *De Bello Gallico*, the historical Sabinus makes a grave mistake by not standing his ground, but fleeing like a coward against the orders of Caesar which leads to the unfortunate demise of Sabinus. Whether or not this is a true account of events, Caesar wrote in no uncertain terms about the mistakes that Sabinus made and the consequences the Roman army suffered because of that man. Crawford takes and molds this character sketch and gives the name Sabinus to the weakest Roman general (Table 1).

Manual of *Legionnaire*	***De Bello Gallico***
This legion is a disaster. Its leadership is poor and almost all of the better centurions have inveigled transfers to other units. It is weak, slow, and very badly demoralized. The troops fight poorly and crack easily. Once broken, they recover only very slowly. This unit can only be kept out of harm's way and used for the lightest possible combat. (Crawford 1982, 6).	Not only did Sabinus face enemy scorn, but criticism was heard from our own soldiers. **He gave the impression of fear** so strongly that the enemy ventured to come right up to the camp walls. (3.17)[3] Sure the rumor of his **cowardice** was strong (3.18) They began battle in a setting entirely bad for our men. Then at last Sabinus, as if he had foreseen none of this, **took fright** and ran around arranging his cohorts, **timidly**, as though everything he needed was lacking(...) (5.32-33) Our men, **bereft of leadership** and luck (5.34). He said they should endure **the disaster brought by the legate's fault and folly** (5.52)

Table 1: The description of Sabinus in the *Legionnaire* manual on the left and fragments of the description of Sabinus in *De Bello Gallico* on the right, emphasis added by authors.

The strengths and descriptions of the tribes feature some more examples of Crawford incorporating his knowledge of *De Bello Gallico* into *Legionnaire*. The "Aedui" are "put into the game solely to provide an easy opponent for beginners" according to the manual (Crawford 1982, 7). The first time they appear in *De Bello Gallico*, Caesar writes "The Aedui, as they could not defend themselves and their possessions against them, send ambassadors to Caesar (...)"(De Bello Gallico 1.11). The Aedui were weak, according to Caesar, because they could not protect their own people, and now appear as one of the weakest units in the game. The description of the Helvetii illustrates the point as well. They are among the best troops in the game and the description introduces the tribe as such "The Helvetii are the most feared infantry in barbarian Europe" (Crawford 1982, 8). The tribe already takes the stage in Caesar's first book, and serves as one of the catalysts for Caesar's conquest of Gaul. He states they are "continually waging war, for which reason the Helvetii also surpass the rest of the Gauls in valour" (De Bello Gallico 1.1). The strengths of these tribes are not assigned randomly, rather, they are informed by historical counterparts in both strength and description. This means that, although Crawford favours a straightforward game design by his own admission, his ideas and the influence of wargame conventions are not only textually expressed within the manual. Crawford takes Caesar's words and carefully incorporates those in the very mechanics of *Legionnaire* itself.

TROPES OF ROMANS AND BARBARIANS

Legionnaire was one of the first digital games featuring Romans and it contains some elements and tropes that became the standard in video games thereafter, and at first glance the game displays a now stereotypical portrayal. The way in which the player interacts with the past is through violence, fighting the barbarians who are, according to the manual, "primitive" (Crawford 1982, 9), "aggressive" (Crawford 1982, 7), and fight "with savagery" (Crawford 1982, 9) and "like demons" (Crawford 1982, 9), while the description of the Romans emphasises discipline and order. Players, as the Romans, are always outnumbered two-to-one by units of barbarians. Next to the

mechanics that remained a staple in video games, this type of element can still be found in recent games (Coert 2018).

In the tradition of Western historiography and cultural imagination, barbarians were often used as antonym of "civilization" and "progress", as they were imagined as wild hordes fighting against disciplined Romans, eventually bringing down the Roman Empire (Boletsi 2013). While this game might seem to fall in line with this type of narrative, Crawford's ideas of history demonstrate a critical appraisal of such stories. Moreover, his design notes and, once again, influences of the supposed attitude within the war game community, explain the choices and reasons behind some of the game elements.

Crawford makes his understanding and ideas around the past explicit in multiple texts he wrote. When discussing the medium of computer games to express history, he not only alludes to the strengths and weaknesses present in the medium, but also states that "every form of historical examination has bias built into it. The stuff and substance of history - documents - has a built-in bias towards big shots" (Crawford 1997, 88). He goes on to detail that some historiography allows for an almost mythologisation (Barthes 1957) of certain historical figures and that "A computer game, like any history, can be used to emphasize some aspect of history" (Crawford 1997, 88). This places Crawford in the minority of game developers who hold a more deconstructionist view of history (Copplestone 2016). We can thus conclude that the stereotypical elements of *Legionnaire* are not simply due to a lack of critical attitude towards historiographical narratives and sources on Crawford's part.

Rather, the challenges Crawford faced during the development of *Legionnaire* resulted in some of the more stereotypical elements of the game. His notes clarify that technical difficulties played a big role in the unit sizes for barbarians. He wished to implement varying unit sizes for barbarians, reflecting the different sizes of tribal forces in Caesar's book, fitting his idea of how to recreate the past. However, the rudimentary game Artificial Intelligence (AI), was not able to provide enough of a challenge to experienced players fighting smaller armies. As he simply could not get this advanced tactics AI to work, he opted to give barbarians troops twice the number of Roman troops. His thought process behind this solution is interesting, he writes "After all, I reasoned, the Romans were outnumbered in most of their battles against the barbarians" (Crawford 2003, 291). So even this self-proclaimed "lazy solution" is historically framed, although it was not one he was content with. In his post-mortem on *Legionnaire* he states that he simply had no time to improve the game because Avalon Hill held him to a strict schedule. For example, on his project wishlist he mentions wanting to add named barbarian leaders to the game "when I might have more time." This extra project time never materialised and "barbarians as individuals" were scrapped from the game (Crawford 2003, 288). This thus means that the barbarians come in hordes, have no leader to represent them and as units display a lack of complex strategy, because of the challenges during the game design.

These challenges, however, do not account for the more textual stereotypes within the manual, as roots of these lay in the wargame conventions. As asserted before, designers are expected to do historical research and base their wargames off of historical sources to some degree. Crawford did not only include names, and based unit variables on *De Bello Gallico*, he created a game that reflected Caesar's experience expressed in his own text. Crawford's game was based on available

historical sources of the time, and is not free of bias and forefronts a "big shot" in Crawford's words.

In a way, the conventions of the wargame community thus constrain Crawford to the words of Caesar. The only way in which he attempts to get around this matter to a degree, is featuring the Huns as the strongest cavalry tribe. Their description does not feature the same type of language, but leads with an explanation and justification: "The Huns were an Oriental group of tribes that swept into Europe 400 years after Caesar's time. Nevertheless, we wanted to give you a challenge" (Crawford 1982, 10). Reviews address this as well, justifying the inclusion of the Huns in a similar manner, and adding that although "the historical gamer may be appalled at finding the Huns fighting Caesar" (Willet 1982, 45), the rest of the game still holds true to historical realism and history. Anachronistic elements thus require a justification, in the game manual and in a review, and are seen as remarkable by its players and its designer.

The rationale for including the Huns to "give you a challenge" indicates how Crawford goes along with some of the framing that Caesar presents. In his own book and in representations thereafter, he retains an image of an enormously successful general, and any military misfortune can be easily blamed on his subordinates disregarding commands or proving lacklustre leaders themselves, like Sabinus. None of the contemporary barbarians can pose a real challenge to Caesar, therefore the Huns are introduced. They are not markers of a Roman past, but are employed as a mechanic to prop up Caesar in the general's own words.

CONCLUSION

This paper set out to bring to the fore how designer's considerations, restrained and enabled by technologies, shaped a genre and its development at a key moment for digital games. By coding Crawford's writing, in-game design elements and the textual elements of the manual, these insights could be teased out by using ATLAS.ti. The study makes a first step to address a question underlying the field of historical game studies: What elements communicate that a game is historical? *Legionnaire* served as a case-study game, a game created at the dawn of historical digital games and whose designer wrote extensively about the processes of game design and his ideas about the past. By focusing on this influential designer and his approach to history, a complex web of mechanics, (para)texts, and historical ideas emerges. With a code-based approach, using ATLAS.ti, we tagged 79 elements that elucidate how Crawford marked the Roman past to the player. These elements broadly fall into categories of historical individuals, historical cultural groups, historical events, symbols, and the use of the Latin language. Clearly, Crawford took *De Bello Gallico* as a foundational text for these elements. Crawford shapes the mechanics, down to individual unit statistics, by indirect reference to *De Bello Gallico*. With this, Crawford exposes the player to the specific rhetoric of this highly subjective historical source.

By expanding the scope from the game and its manual to associated paratexts written by Chris Crawford and to *De Bello Gallico* itself, a network of relationships appears. *Legionnaire* is clearly marked as a game set in Roman antiquity. Still, the historical conventions of 20th century wargaming communities shape most of the mechanics that are driving the game —with the important exception of real-time gameplay. These mechanics have a long history, being continuously placed in different historical periods. Moreover, the wargaming community also forefronts a certain approach to games by both designers and players, in which research of historical sources plays a

vital role. Crawford thus did not only include names occurring in *De Bello Gallico*, the units and their description, as well as the various values assigned to them, are rooted in Caesar's words as well. This demonstrates that relatively simple historical games, judged by today's standards, are still scaffolded by historical research, understanding, contextualization, and even deconstruction.

This historical base does not save *Legionnaire* from featuring stereotypical elements: barbarians come in hordes, they have no individuality and are described in terms of savagery and aggression, and Julius Caesar is the hero of the story. It seems somewhat paradoxical then that Crawford read historical sources for his design process and demonstrated a critical attitude towards historical narratives in his writing. Part of this can be explained by the approach the wargaming community came to expect, as Crawford had to rely on historical evidence. Caesar's *De Bello Gallico* is not neutral or without agenda, which shapes the way in which Romans and barbarians are described. Sources such as Avalon Hill's *General* show that the members of the wargaming community actively engaged in discussions around historical sources, and Crawford's *Legionnaire* is geared towards this audience. It is therefore possible that Crawford would expect the target audience to understand that this game is Caesar's experience, rather than making statements about the past itself. Moreover, some of the elements were formed by technical limitations and challenges Crawford faced, resulting in a number of elements that were never implemented. Even though this game designer subscribed to a deconstructionist notion of history, *Legionnaire* gets played by Caesar's past.

As a historical game study, this research foregrounds the many mechanical links of play, the past, and with a convoluted approach to history. By deconstructing the game, focussing on individual game elements and by analysing them in relationship to one another, our approach can help in pinpointing the patterns underlying this complexity. As games get more complicated, it will not be possible to consider every game design element, and the ideas and decisions of designers might not be accessible. The relationship between game elements, however, can facilitate the recognition of similar patterns.

This case study thus demonstrates the need to study games as an ongoing dialogue between the past and the present, showing the field of tension that lies between them, and uncovering how this tension gets implicitly, and sometimes explicitly, marked in (historical) game design. In line with studies of more recent games, this case study shows how historical video games are for a large part structured around cultural shorthands —from established fact to trivia, and tropes to downright stereotypical representations— and that this has been the case since before the beginning of the genre.

These types of elements and the games that contain them are, in a way, too easy of a target for historical (games) criticism, which seemingly makes them less attractive to study. However, it is important to mark, contextualize, and connect the various roots of these cultural shorthands and stereotypical elements, to understand how they work exactly as part of historical game design. More modern historical games contain significantly more content, making it even more important to use a formal and structured approach to identify, code, and connect historical game elements. This paper demonstrates that ATLAS.ti or similar software augment this way of handling various types of data, and perspectives on games. Together with other methodological interventions and innovations, grounded structured qualitative

research of this kind is key in asking and answering the contextualized relational inquiries typical of (historical) game studies. In the case of *Legionnaire,* this approach has revealed, there is a more complex understanding of the past and the ambition to capture these ideas into a ludic realm than historical game designers, especially those of early historical digital games, are credited with.

ENDNOTES

1 From here on, this paper will refer to "barbarians" without quotations marks. While not a neutral term, we chose to use it because our source material, such as the manual, employs this term.
2 The corpus of this study only includes the game elements that are visible and accessible to a player, rather than delving into the source code. This extends to the gameplay and manual, but not the code that creates the gameplay, which we intentionally excluded as it lies beyond the scope of this study.
3 We used James O'Donnell's (2019) translation for all the quotes of *De Bello Gallico*.

REFERENCES

Apperley, T. 2010. *Gaming Rhythms: Play and Counterplay from the Situated to the Global*. Amsterdam, the Netherlands: Institute of Network Cultures.

Apperley, T. 2018. "Counterfactual Communities: Strategy Games, Paratexts and the Player's Experience of History." *Open Library of Humanities Journal*. 4 (1). https://doi.org/10.16995/olh.286.

Aycock, J. 2016. *Retrogame Archaeology: Exploring Old Computer Games*. New York, NY, USA: Springer International Publishing.

Barthes, R. 1957. *Mythologies*. Paris, France: Editions du Seuil.

Boletsi, M. 2013. *Barbarism and its Discontents*. Stanford, CA, USA: Stanford University Press.

Chapman, A. 2016. *Digital Games as History: How Videogames Represent the Past and Offer Access to Historical Practice*. New York, NY, USA: Routledge.

Coert, J. 2018. "Der digitale Furor Teutonicus. Zur Rezeption von Germanenbildern im Videospiel am Beispiel von Total War Rome II." *Thersites*. 7. 58-106.

Copplestone, T. 2016. "But that's not accurate: the differing perceptions of accuracy in cultural-heritage videogames between creators, consumers and critics." *Rethinking History: The Journal of Theory and Practice*. 21 (3). 415-438.

Cormio, L., Giaconi, C., Mengoni, M., and Santili, T. 2024. "Exploring Game Design Approaches through Conversations with Designers." *Design Studies*. 91-92. https://doi.org/10.1016/j.destud.2024.101253.

Crawford, C. 1984. *The Art of Computer Game Design*. Berkeley, CA, USA: Osborne/McGraw-Hill.

Crawford, C. 2003. *Chris Crawford on Game Design*. Indianapolis, Ind, USA: New Riders.

Crawford, C. 2022. "Library." Website. https://www.erasmatazz.com/library/index.html.

Dewitt, R. 1982. "With Legionnaire, fight Caesar's battles on Atari." *Infoworld: The Newsletter for Microcomputer Users*. 5 (7). 56-57.

Dow, D. 2013. "Historical Veneers: Anachronism, Simulation, and Art History in Assassin's Creed II." In *Playing with the Past: Digital Games and the Simulation of History,* edited by M. Kapell and A. Elliott, 215–231. New York, NY, USA: Bloomsbury.

Electronic Arts, Crawford, C. 1986. *Rommel versus Patton*. Digital Game. Electronic Arts.

Elliott, A. 2017. "Simulation and Simulacra: History in Video Games." *Práticas da História. Journal on Theory, Historiography and Uses of the Past*. 5. http://www.praticasdahistoria.pt/en/issues/praticas-da-historia-no-5-2017/simulations-and-simulacra-history-in-video-games/

Flegler, A. 2020. "The Complexities and Nuances of Portraying History in Age of Empires." In *Classical Antiquity in Video Games*, edited by C. Rollinger, 205-216. New York, NY, USA: Bloomsbury.

Grufstedt, Y. 2022. *Shaping the Past: Counterfactual History and Game Design Practice in Digital Strategy Games*. Berlin, Germany: Walter de Gruyter.

Heede, P. van den. 2021. *Engaging with the Second World War through digital gaming*. Rotterdam, Netherlands: Erasmus University Rotterdam.

Hellwig, J. 1780. *Versuch eines aufs schachspiel gebaueten taktischen spiels von zwei und mehrern personen zu spielen*. Leipzig, Germany: S. L. Crusius.

Hellwig, J. 1803. *Das Kriegsspiel: ein Versuch die Wahrheit verschiedener Regeln der Kriegskunst in einem unterhaltenden Spiele anschaulich zu machen*. Braunschweig, Germany: Karl Reichard.

Houghton, R. 2018. "World, Structure and Play: A Framework for Games as Historical Research Outputs, Tools and Processes." *Práticas da História. Journal on Theory, Historiography and Uses of the Past*. 7. https://praticasdahistoria.pt/article/view/22437/16540.

Houghton, R. 2022. *Engaging the Crusades Volume Five*. London, UK: Routledge.

Lowood, H. 2016. "War Engines: Wargames as Systems From the Tabletop to the Computer." In *Zones of Control*, edited by P. Harrigan and M. Kirschenbaum, 83-106. London, England: The MIT Press.

Machado, D. 2020. "Battle Narratives from Ancient Historiography to Total War: Rome II." In *Classical Antiquity in Video Games*, edited by C. Rollinger, 93-106. New York, NY, USA: Bloomsbury.

Microcomputer Games. 1982. *Legionnaire*. Digital Game. Avalon Hill.

Mol, A., Politopoulos A. and Ariese-Vandemeulebroucke, C. (2017). "'From the Stone Age to the Information Age' History and Heritage in Sid Meier's Civilization VI". *Advances in Archaeological Practice*. 5 (2). 214-219. https://doi.org/10.1017/aap.2017.9.

O'Donnell, J. 2019. *The War for Gaul: A New Translation*. Princeton, NJ, USA: Princeton University Press.

Peterson, J. 2016. "A Game Out of All Proportions: How a Hobby Miniaturized War." In *Zones of Control*, edited by P. Harrigan and M. Kirschenbaum, 3–31. London, England: The MIT Press.

Rollinger, C. 2020. "An Introduction to Classical Antiquity in Video Games." In *Classical Antiquity in Video Games*, edited by C. Rollinger, 1-18. New York, NY, USA: Bloomsbury.

Salvati, A. and Bullinger, J. 2013. "Selective Authenticity and the Playable Past." In *Playing with the Past: Digital Games and the Simulation of History,* edited by M. Kapell and A. Elliott, 153-183. New York, NY, USA: Bloomsbury.

Stanton, J., Wells, R., Rochowansky, S., Mellin, M. 1984. *The Addison-Wesley Book of Atari Software 1984*. Boston, MA, USA: Addison-Wesley Publishing Company.

Tommervik, C. T., Ryall, P., Christie, A., Gear, T., Yuen, M., Varven, J., Durkee, D., Hunter, D., Cooper, C., McNeil, H., Barnes, B., Adams and R., Johnson, F. (Eds.). 1983. "Legionnaire". *Softline 2*. 38-39.

Trunzo, J. 1983. "Legionnaire." *Creative Computing*. 9 (12). 132-133.

Välisalo, T. and Ruotsalainen, M. 2022. "'Sexuality Does Not Belong to the Game' - Discourses in Overwatch Community and the Privilege of Belonging." *Game Studies*. 22 (3). https://gamestudies.org/2203/articles/valisalo_ruotsalainen.

Wardaszko, M., 2018. "Interdisciplinary Approach to Complexity in Simulation Game Design and Implementation." *Simulation and Gaming*. 49 (3). 263-278. https://doi.org/10.1177/1046878118777809.

Willett, B. 1982. "Legionnaire: Review and Analysis." *Computer Gaming World*. 2 (6). 27-28.