THE ARCHITECTURE OF ASSASSIN'S CREED II'S FLORENCE

An Analysis with the History-Game Relations (HGR) Framework
GABRIELE ARONI

INTRODUCTION

The technology used in digital games allows us to visit the most disparate locales with a higher and higher degree of fidelity. In most cases scenery and events are fictitious in nature, but there are also many instances of historical reconstructions. A case that stands out is undoubtedly the massively popular *Assassin's Creed* series, (Ubisoft, 2007-present) that has made of its historical locations a major characteristic and point of the overarching plot. This article will explore how the city of Florence during the Renaissance is represented in the game *Assassin's Creed II*. (Ubisoft, 2009) Florence, as well as Venice and San Gimignano, two other cities depicted in the game, stand in a particular position as regards their historical representation, for they have been preserved largely intact – albeit with notable, but not too extensive, changes – since the time of the game's setting in the 15th century. Moreover, it is this very characteristic of being mostly unchanged – compared, for example, to the New York of *Assassin's Creed III* (Ubisoft, 2012) or the Paris of *Assassin's Creed Unity* – (Ubisoft, 2014) that shaped their look in the collective imaginary, not to mention the millions of tourists that visit these cities every year. In order to analyze how the city of Florence has been recreated in *Assassin's Creed II*, how it has been adapted to

satisfy both the needs of a functional and entertaining game, and what people would expect from the 'Cradle of the Renaissance', we will use the "History-Game Relations Framework" (HGR) during the first phase of the game set in Florence. The HGR Framework is a tool developed by Vincenzo Idone Cassone and Mattia Thibault to "conceptualize the ways in which history is shaped and adapted and to approach how this adaptation influences the representation and perception of history itself" (2016, 167) in digital games.

STORY AND GAMEPLAY OVERVIEW

Assassin's Creed II is a third-person, 3D, open-world action/ adventure game developed by Ubisoft Montreal and released in 2009. It is a direct sequel to the 2007 *Assassin's Creed* (Ubisoft, 2007) and continues the same overarching story of a conflict between the two secret societies of Templars and Assassins over the possession of mysterious artefacts, called "Fruits of Eden", so powerful that they are capable of controlling the flow of history. Set in the present, the 'frame plot' sees the character of Desmond, an Assassin, using a device called Animus to revive the memories of his ancestors in order to discover where the "Fruits of Eden" are located. This allows for the developers to freely set the various episodes of the series in different historical epochs without changing or disturbing the main plot. *Assassin's Creed II* is set in Italy during the Renaissance, from 1476 to 1499. The player will impersonate Ezio Auditore, a Florentine whose family is wrongfully accused and put to death. This will set Ezio on a course of revenge that will span several cities in Italy and will see the player participate in historical events such as the Pazzi conspiracy and the siege of Forlì (albeit this one placed 11 years prior to the real fact) as well as meet historical characters such as Lorenzo de' Medici and Leonardo da Vinci.

Assassin's Creed II allows players to freely explore the environment from a third-person perspective and the focus of

the game is exploration – the map is revealed by climbing high vantage points, usually towers and monuments –, stealth action and combat. Since the player is an Assassin, the main missions usually involve the assassination of a target, whereas the many secondary missions vary from rooftop running competitions to more platform-oriented tomb raiding. Interaction on the development of the story is limited, but the narrative framework offers an explanation for this fact: it is impossible, for example, to kill Lorenzo de' Medici, since the game is the recollection of a person who lived through that time, and thus the (his)story cannot be altered.

THE HGR FRAMEWORK

The History-Game Relations framework applies the historical discourse theory of Lozano, (1987) which affirms that "history as a discipline is an activity that involves 1) selecting elements; 2) ordering and drawing connections between those elements; and 3) putting them into perspective through a reconstruction or narration." (Cassone & Thibault, 2016, 159) Following this theory, Cassone & Thibault outline three procedures to implement history into digital play:

- **Setting**. The selection of historical elements present in the game: if only as a setting; if a visual detailed reconstruction, on which scale and level (for example, a macro scale for games such as *Civilization VI* (Firaxis Games, 2016) or a micro scale, to the level of clothes and characters for *Assassin's Creed*). It also includes the visual aspect of the reconstruction.

- **Modelling**. How the historical factors are represented and influence the game and gameplay. In *Call of Duty: WWII* (Sledgehammer Games, 2017), history influences the gameplay in a limited manner, whereas in *Europa Universalis IV* (Paradox Development Studio, 2013) there are plenty of historically grounded variables.

- **Representing**. How the historical setting/events are represented in the game, via text, graphics, etc., which includes the narrative aspect. If the game is in first person or not, or from the perspective of a single character or multiple characters, etc.

Cassone & Thibault then apply the semiotic theory of Uspenski (1988) stating that "the processes of collective representation of history can be approached as a semiotic translation" (2016, 162) through three forms of translation:

- **Perspectival**. The act of 'translating' the past to present language. The selection of the time period and its depiction will vary based on interpretation. The same goes for the visual adaptation and this is on what this article concentrates.

- **Digital**. This is the actual translation from the original source, such as a real building, or an ancient drawing or text, to the digital format of the game. This is where technical and hardware limitations come into play to determine how history is represented (i.e. the absence of the Baptistery in Florence in *Assassin's Creed II*).

- **Ludic**. How historical accuracy and plausibility are bent (or not) in order to work with the gameplay and to translate in an enjoyable game. If the historical elements are integrated in the game mechanics, etc.

The intersection of the three procedures of implementation of history in games with the three forms of translation forms the History-Game Relations (HGR) schema (see Table 1), that can be represented in a matrix and read either horizontally, to see how the processes of history implementation are translated, or vertically, to see how the translations are applied to the various processes. (2016, 168-170)

	Perspectival translation	Digital translation	Ludic translation
Setting (Selection of the elements and of the setting based on:)	Contemporary trends, influence of other media, fashionable historical periods	Hardware limitations and software potentials	Presence in the era of elements adaptable to the medium (wars, iconic figures...), Adaptability to specific digital games genres.
Modelling (Building relations and dynamics of the simulations according to:)	Theories of historical development, Historiographies, Educational narratives and storytelling	Limits and features of the historical engine (i.e. gameified historical dynamics)	Basic elements of gameplay, Players agency, game-genre dynamics, Features of playfulness.
Representing (Creation of representations and narratives based on:)	Narration models commonly used to represent history (historical fiction, novels, documentaries, etc.)	Graphic regimes, Ergodic/linear narratives, narration potentials determined by the graphic engine, use of other media (images, cinematics, comics, texts)	Game genre typical perspectives, focus on controllable elements, informativeness of the vision/narration

Table 1. From Idone Cassone & Mattia Thibault, (2016) "The HGR Framework A Semiotic Approach to the Representation of History in Digital Games". Gamevironments, Special Issue "Gamevironments of the Past" (05), 168.

In this article, we will focus on the visible architectural component of *Assassin's Creed II*, thus on the various translations of the Setting procedure of the HGR Framework, in order to see how Renaissance Florence has been adapted in *Assassin's Creed II*.

A TOUR OF THE FLORENCE OF ASSASSIN'S CREED II

The primary role that the settings play in the game is clear as soon as the avatar of the player, Desmond, steps into the Animus to revive the memories of his ancestor Ezio Auditore. The game offers a pan on the main monuments of Florence, first the Palazzo della Signoria and then Santa Maria del Fiore, followed by the text "Repubblica Fiorentina, 1476". The opening scene, and the first interactive part, is set on one of the most recognizable and well-known spots of the city: the Ponte Vecchio (Old Bridge). As many of the other monuments represented in the game, we can already see how the reconstructions of

buildings and locales in *Assassin's Creed II* are "neither strictly historical nor present a thoroughly imagined representation of any time period or place. Rather, they exist in a curious landscape situated somewhere between the two". (Westin & Hedlund, 2016, 4) The current jewelry shops that occupy the bridge have been replaced with more accurate food shops (even though butchers would have been the historically correct choice), but on the east side the Vasari Corridor, an elevated passageway that connects the Palazzo Vecchio to Palazzo Pitti, is present on top of Ponte Vecchio, and it was not built until a century after the events depicted in the game. It is interesting to notice, however, how the depiction of the Vasari Corridor does not exactly correspond to how it looks today, but is rather an adaptation, in order to display how the bridge looked different half a millennium ago, but not to make it too different, and still leave the general form that can be easily linked to the typical imagery of the contemporary Ponte Vecchio, an approach that is adopted in the vast majority of the monuments represented in *Assassin's Creed II*. After this introductory scene, Ezio is challenged to a race by his brother Federico, that will introduce us to one of the main mechanics of the game, the free-roaming and climbing of buildings in order to reach a high point from where to observe the city and thus reveal the map. With the small figures of Ezio and Federico standing atop a bell tower and the massive outline of the cathedral of Santa Maria del Fiore and Brunelleschi's dome in the background, the title of *Assassin's Creed II* appears, 'officially' declaring the beginning of the game, and showing once more how architecture and the environment is the protagonist, almost more so than the characters.

We will now proceed to analyze the reconstruction of the city of Florence in *Assassin's Creed II* through the lenses of the HGR Framework, concentrating on the historical Settings procedure and how it has been semiotically translated into a digital game.

SETTING

As mentioned, Assassin's Creed II is set in Renaissance Italy, spanning 23 years from 1476 until 1499. The locations of the game are Florence, Venice, San Gimignano, Forlì, Monteriggioni and the countryside of Tuscany. These cities are reconstructed in their entirety and are freely explorable by the player. To complement the reconstruction, real historical characters, such as Machiavelli and Leonardo da Vinci, and real historical events, such as the Pazzi conspiracy, are present, albeit often with slight modifications. The general image the public has of the city of Florence has been built much by contemporary tourism, but has been shaped in the past centuries starting exactly around the time the game is set, with views of the city from the paintings of artists such as Masaccio, Botticelli and Ghirlandaio. These views embody all the transformations that took place in the cultural life of Quattrocento Florence, and are not mere graphic representations of the city, culminating in the aerial perspective of the Pianta della Catena of circa 1472. (Fanelli, 2002, 76-7) The representation of Florence in Assassin's Creed II is the result of a certain cultural and technological context as well.

PERSPECTIVAL TRANSLATION

Douglas N. Dow considers Assassin's Creed II's Florence a simulacrum rather than a simulation, where anachronisms are used to make the city more recognizable and similar to what it is today, at the risk of confusing the player, (Dow, 2013, 220) and Westin & Hedlund affirm that by analyzing the Rome of *Assassin's Creed: Brotherhood* (Ubisoft, 2010) we can understand the "contemporary public's collective idea of late fifteenth century". (2016, 7) The shape of the historical center of Florence has remained largely unchanged since the 14th century, contained within the walls designed by Arnolfo di Cambio during the previous century (and now replaced by boulevards), and has been quite accurately represented in *Assassin's Creed II*,

save for its scale (see the Ludic section). The relative position of the various monuments is generally correct, so much so that it is not impossible to orientate ourselves in the real city based on previous experience in the game. Of course, not all buildings are faithfully represented in the game, but Ubisoft managed to skillfully select a few topoi of Florentine buildings to create the urban landscape in order to make it believable and recognizable. We can see *altane*, loggias placed atop of buildings, framed windows and the typically Florentine overhanging eaves of the roofs. Some buildings, such as the palace of Ezio's love interest Cristina Vespucci (a probable allusion to Simonetta Vespucci, a legendary Florentine beauty who died the same year the game starts, and who might have been the model for the Venus of Botticelli), have façades covered with *sgraffito*, a technique that uses contrasting plaster colors, and that was popular in Florence in the 15th century. Some of the textures of *sgraffito* façades come from photographs of the façade of the Palace of Bianca Cappello, which is still in Florence, but that would only be built a century later, whereas the other textures come from the frieze in the interior courtyard of the Medici Palace, which indeed already existed, and is visible during the game. This choice shows how the selection was based on what is still visible today, as well as on a choice of the most notable and recognizable examples, to which the façade of the Palace of Bianca Cappello undoubtedly pertains. The palace of the Auditore family as well, is the exemplification of the Florentine typology of the *palazzo* that was established in the 15th century by architects such as Michelozzo, Alberti and Giuliano da Sangallo, working for rich bankers and merchants of the city, such as the Medici and Rucellai, a perfect fit for the Auditore family, bankers as well, working for the Medici. Palazzo Medici is in fact quite well reconstructed in the game, with the omission of the large extension added in the 17th century, and displaying its original square floorplan.

Proceeding in the game, we are welcomed by Ezio's father,

Giovanni, at the doorstep of the Auditore Palace, which leads to the square open courtyard covered in white plaster with grey pietra serena ornamentation, common to these types of buildings. Exploring the city, we come into contact with the other main Florentine monuments, where we can see more of the translation that Ubisoft effected. The cathedral of Santa Maria del Fiore, often called Duomo, sports an unfinished façade, the sign of a changing city, together with other buildings under construction, and it is what Dow calls, citing Annette and Jonathan Barnes, (1989, 258) a "nonobvious anachronism". (Dow, 2013, 220) The façade of Santa Maria del Fiore was indeed incomplete in the period between 1476 and 1499, and the part that existed, constructed in the 14th century, did resemble in some form what is displayed in the game. However, the under-construction façade of *Assassin's Creed II* represents a partial contemporary façade of the cathedral, built only in the 19th century. What is interesting, is that the 19th century façade itself was designed to 'simulate' a 14th century one, and even today, many people ignore that there is almost half a millennium difference between the construction of the cathedral and its façade. A similar situation is repeated with the church of Santa Croce, where the 19th century façade, again designed in 14th century Gothic style, is present in the game. Unsurprisingly, the façade of the church of San Lorenzo is left unbuilt, as it stands today, a clear sign that the work done by Ubisoft was meant not to overly distance the reconstruction from the contemporary aspect of the city of Florence, while at the same time hint that there have been changes and that we are exploring the past.

In fact, the major transformations that took place on a large scale in the city, mainly the construction of the Uffizi in the 16th century, and the transformation of the Old Market at the end of the 19th, are not represented. Especially the demolition of the Old Market and a large part of the old city center visibly changed the look of Florence, particularly the creation of Piazza della

Repubblica between Santa Maria del Fiore and Palazzo della Signoria. This selective choice does not come as a surprise, as the 19th century redesign of the center, unlike the aforementioned façades of Santa Maria del Fiore and Santa Croce, did not try to emulate the previous design of the city, but rather modernize it to the standards of other European capitals such as Paris and Vienna, (Fanelli, 2002, 212) and would undoubtedly have been detrimental to the appearance of an old Renaissance city that *Assassin's Creed II* aims to convey. Leon Battista Alberti in his *De Re Aedificatoria*, first published 20 years before the events of *Assassin's Creed II*, mentions how the cities that he knew as made of wood as a child, were now made of marble. (Alberti, 1989, p. 384) In the game, some elements are designed to give the impression of a city in development, as it was at the time, such as the bridge of Santa Trinita, next to Ponte Vecchio, which, similarly as regards the façade of Santa Maria del Fiore, was not under construction during the time of *Assassin's Creed II*, and especially did not have the form that it would only acquire with its reconstruction after a flood in the 16th century. These examples show how "once authenticity or historical accuracy cease to be overriding concerns, it is possible to see how *Assassin's Creed II* presents a view of Florence that emphasizes 'its meaning, not its physical being,'" (Dow, 2013, 227) and how the translation has been done in the optic, not of producing a historically accurate reproduction, but rather an interpretation that could be as comprehensible as possible to the large public.

DIGITAL TRANSLATION

The possibly most glaring omission in the game, the Baptistery of San Giovanni in Florence, is due not to an interpretation by Ubisoft, but rather to technological limitations, falling thus under the Digital translation. In an interview, Corey May, lead writer of *Assassin's Creed II*, affirmed that the Baptistery was not placed in the game because of the lack of memory to store the unique textures that it would have required. (Bailey, 2012) So, the

selection of which buildings to represent in the game was not exclusively a matter of how to translate Florence for the audience of a contemporary digital game, but based also on technical factors. This also explains the aforementioned repetitions of *sgraffito* façade decorations, as well as other materials, which was effected in order to save memory space by repeating the same textures. Other important buildings, such as Orsanmichele or Palazzo Strozzi, were most likely victims to the same fate, and Ubisoft probably preferred to keep the skyline of the city as intact as possible, since it is often explored from rooftops, and thus include buildings that are not historically accurate but highly influential to the contemporary 'postcard' panorama of the city, such as the 17$^{\text{th}}$-18$^{\text{th}}$ century dome of the Cappella dei Principi, next to the church of San Lorenzo, whereas historically appropriate and important buildings, but smaller in scale, such as the Baptistery, were omitted. The lack of interiors for most of the buildings, or their limit to specific missions, is another decision clearly influenced by hardware limitations, which will in fact be changed with subsequent games in the series, such as *Assassin's Creed Unity*. (Ubisoft, 2014) At the same time, *Assassin's Creed II* offers a three-dimensional reconstruction of Florence on an unprecedented scale, and the level of detail is flexible enough to offer panoramic vistas and minute features. Moreover, the advantages of real-time engines in terms of exploratory possibilities are self-evident, and regardless of the accuracy of the reconstruction, the possibility of walking around the streets and monuments adds to the verisimilitude.

LUDIC TRANSLATION

One of the most obvious aspects of the architectural reconstruction of Assassin's Creed II that has not been mentioned yet is scale. The city itself, and every building in it, have been noticeably scaled down. This is a result of Assassin's Creed II being primarily a digital game and thus having the ludic aspect as its main concern. As more majestic as it would appear,

taking half an hour to climb Giotto's bell tower would hardly be entertaining, without even counting the fact that ledges and moldings would be too far away from each other to offer viable holds. Real horizontal distances as well would be detrimental to gameplay, as it would take three or four minutes just to run from one edge of the cathedral of Santa Maria del Fiore to the other, and about half an hour to cross the whole city. These distances would also make it impossible to jump between many buildings, especially across the streets. Despite the buildings in Florence being built close to each other, the jumps would have to be even more unnaturally long than they already are. Even the plan of the city has been adapted, both as a result of the technological limitations outlined in the previous paragraph, as well as gameplay constraints. At the same time, the towers, buildings and narrow roads of medieval towns are the perfect setting for a parkour exploration game such as Assassin's Creed II. When Ezio's father is imprisoned, he is taken to the Albergaccio, a 'maximum security' prison cell on the tower of Palazzo della Signoria that still exists and that was really used to hold high-profile political prisoners. This event triggers the mission of having to climb the tower in order to reach Giovanni Auditore, an example of how much architecture is integrated into the gameplay. Other landmarks become functional to the action as well, such as the cloister of Santa Croce, where Ezio is tasked with the assassination of Uberto Uberti and even real events are aptly used in the game, such as the sword fight in front of Santa Maria del Fiore during the Pazzi conspiracy.

CONCLUSION

By playing and exploring the Florence of *Assassin's Creed II* and 'reading' it with the HGR Framework, we can see how historical settings are adapted in digital games, but it also gives interesting insights as to how historical architecture is interpreted by the public and what the expectations of the players are. Dow, in fact, mentions 18th and 19th century authors, including Goethe,

who were surprised at how different the real monuments of Italy looked from the illustrations that they had seen. (Dow, 2013, 222-3) The representation of architecture influences how people see it, and considering the massive exposure that digital games have, their study is all the more relevant.

REFERENCES

Alberti, L. B. (1989). *L'Architettura*. (P. Portoghesi, Ed., G. Orlandi, Trans.). Milan: Il Polifilo.

Bailey, K. (2012, November 2). Filling in the Corners: Bringing Assassin's Creed's Historical Worlds to Life. Retrieved December 26, 2017, from http://archive.is/JCC1o

Barnes, A., & Barnes, J. (1989). Time Out of Joint: Some Reflections on Anachronism. *Journal of Aesthetics and Art Criticism*, *47*(3), 253–261.

Cassone, V. I., & Thibault, M. (2016). The HGR Framework A Semiotic Approach to the Representation of History in Digital Games. *Gamevironments, Special Issue "Gamevironments of the Past"* (05), 156–204.

Dow, D. N. (2013). Historical Veneers: Anachronism, Simulation, and Art History in Assassin's Creed II. In M. W. Kapell & A. B. R. Elliott (Eds.), *Playing with the Past. Digital games and the simulation of history* (pp. 215–231). New York: Bloomsbury.

Fanelli, G. (2002). *Firenze* (VII). Rome: Laterza.

Firaxis Games. (2016). *Civilization VI* [Microsoft Windows, macOS, Linux]. United States: 2K Games.

Lozano, J. (1987). *El discurso histórico*. Madrid: Alianza.

Paradox Development Studio. (2013). *Europa Universalis IV* [Microsoft Windows, OS X, Linux]. Sweden: Paradox Interactive.

Sledgehammer Games. (2017). *Call of Duty: WWII* [Microsoft Windows, PlayStation 4, Xbox One]. United States: Activision.

Ubisoft. (2007). *Assassin's Creed* [PlayStation 3, Xbox 360, Microsoft Windows]. Canada: Ubisoft.

Ubisoft. (2009). *Assassin's Creed II* [PlayStation 3, Xbox 360, Microsoft Windows, Mac OS X]. Canada: Ubisoft.

Ubisoft. (2010). *Assassin's Creed: Brotherhood* [PlayStation 3, Xbox 360, Microsoft Windows, Mac OS X, PlayStation 4, Xbox One]. Canada: Ubisoft.

Ubisoft. (2012). *Assassin's Creed III* [PlayStation 3, Xbox 360, Microsoft Windows, Wii U]. Canada: Ubisoft.

Ubisoft. (2014). *Assassin's Creed Unity* [PlayStation 4, Xbox One, Microsoft Windows]. Canada: Ubisoft.

Uspenskij, B. (1988). *Storia e semiotica*. Milan: Bompiani.

Westin, J., & Hedlund, R. (2016). Polychronia – negotiating the popular representation of a common past in Assassin's Creed. *Journal of Gaming & Virtual Worlds*, *8*(1), 3–20.

ACKNOWLEDGMENTS