VISUAL NARRATIVES IN VIDEOGAMES
HOW VIDEOGAMES TELL STORIES THROUGH GRAPHICAL ELEMENTS

Alessandro Soriani[1], Stefano Caselli[2]
[1]University of Bologna
Department of Education Studies
alessandro.soriani@unibo.it
[2]University of Malta
Institute of Digital Games

Videogame is a unique and, at the same time, widely diversified medium. The typical elements of oral, written, musical, visual –but also interactive, spatial, environmental– narration are found merged together in different ways creating 'elsewheres' capable of telling stories and generating experiences in ways that other media are hardly able to replicate. Visual and graphical elements can provide great narrative potentials in videogames as they take part in the wider process of meaning and narrative conveyment, both shaping countless possible scenarios and helping players to make sense of them. This contribution addresses the narrative potential of visual elements in videogames by merging the perspectives of game studies and semiotics. The first part will be devoted to the framing of videogames' expressive power within the field of game studies and will deal with specific field-related concepts such as procedural rhetoric and evocative narrative elements. The second will delve deep into the understanding of videogames as texts, following the work of Agata Meneghelli and Espen J. Aarseth on the matter. The last part will deal with how videogames can use their visual elements for narrative purposes, providing a framework of five different visual narratives based upon Henri Jenkins' videogame narrative theory.

EXPRESSIVE VIDEOGAMES

Both the expressive and the rhetorical potential of video-games have over the years become well-established components of game studies discourse. Several scholars have been trying "to develop theories and analytical models to understand the expressive potential of videogame design, how videogames work as texts, giving shape to certain values, behavioural patterns and ideological visions" (Pérez-Latorre, Oliva & Besalú, 2016, p. 1). From the "narratology vs. ludology" debate –synthetic and comprehensive accounts among others can be found in Gonzalo Frasca (2003), Janet H. Murray (2005), Óliver Pérez-Latorre, Oliva Mercè, and Reinald Besalú (2016)– to the discussion around the subtle propagandist elements of games (Wills, 2019), scholarly works on the field attempted to answer or to work around the question "how do videogames convey meaning?" (Pérez-Latorre, Oliva & Besalú, 2016, p. 1). For if it is self-evident that videogames can serve both propagandistic purposes and political aims (Bogost, Ferrari & Schweizer, 2010; Sicart, 2008a; Wills, 2018); can "share some structural traits [with narratives]" and "contain narrative elements" (Juul, 2001); can persuade (Bogost, 2007) and be emotionally captivating (Calleja, 2011), and so on; the way in which videogames effectively convey meaning is worthy of further consideration before proceeding. In particular, in doing so we shall at first explain how videogames can convey meaning due to their very nature of procedural artefacts rather than their possibility to produce meaning via the combined use of other rhetorical devices, i.e. visual rhetorical devices or oral/written rhetorical devices. We will stress on their possibility to convey meaning making use of their defining feature of procedurality.

The aim of this part of the paper is to provide an operational understanding of how videogames can be expressive thus conveying certain meanings using, together with other forms of rhetoric, a peculiar new kind of rhetoric which is proper to software and videogames, i.e. 'procedural rhetoric'.

FOR AND AGAINST PROCEDURAL RHETORIC

We take the concept of 'procedural rhetoric' from Ian Bogost's *Persusasive Games* (2007), in which the author and game designer draw "on the 2,500-year history of rhetoric" to provide an approach to videogames rhetoric. The book begins with the claim "videogames are an expressive medium", and it aims at deepening exactly into video games' expressive power by connecting two key concepts, one concerning expression, i.e. rhetoric and the other concerning the specificity of video games, i.e. procedurality (pp. 3-11). In our attempt to show how videogames can conveying meaning and shape narratives we shall at first, and briefly, follow Bogost's steps in defining rhetoric and procedurality, and then combine them into what he calls the 'procedural rhetoric'.

Since several fields have, over the years adopted a more general understanding of rhetoric, deviating from the original definition and its association to the art of oratory in defining "how rhetoric functions uniquely in software [and] videogames" (Bogost, 2007, pp. viii-ix), Bogost uses Kenneth Burke's 'expanded' definition of the concept, according to which rhetoric is the use of language as a symbolic means of inducing cooperation in beings that by nature respond to symbols (pp. 20-21). By understanding human beings as consumers and producers of symbolic systems, Burke widens rhetoric to include nonverbal domains too, expanding, as a consequence both rhetoric's conception and its domain. Following Burke, it is a matter of fact that "increasing interest has mounted around efforts to understand the rhetorical figures and forms of [...] other, newer modes of inscription that also appear to serve rhetorical ends" (p. 21).

On the other hand, Bogost defines procedurality as "a way of creating, explaining, or understanding processes" and such processes as "the methods, techniques, and logics that drive the operation of systems, from mechanical systems like engines to organisational systems such as high schools to conceptual systems like religious faith (p. 3). Procedural expression must en-

tail symbol manipulation, the construction and interpretation of a symbolic system that governs human thought or action", and this manipulation has to be both enabled by the symbolic system and projected onto the symbolic system by an interpreter, i.e. the user (Bogost, 2007, pp. 5-6). A procedure can be expressive in the sense that it can spur on new behaviours and critical thought via the use of constraints and simultaneously procedures "maintain the edges of certain situations" (think of bureaucracy for example), and stimulate, with the imposition of these constraints, the creation of new expressions (p. 7). In videogames, procedures are expressed and sustained by rules while cases of this kind of novel expression could be found in emergent or subversive play. Game procedures allow "actions and methods of play [and] guide player behaviour, creating interactions" (Fullerton, Christopher & Hoffman, 2004, p. 25): we could therefore define game mechanics, following Miguel Sicart, as "methods of agency within the game world, actions the player can take within the space of possibility created by the rules" (Sicart, 2008b).

Hence, based on these two assumptions, Bogost defines procedural rhetoric as "the practice of using processes persuasively" (Bogost, 2007, p. 3); in other words, procedural rhetoric is "the act of making an expression or argument through a game's processes and rules" (Treanor, Schweizer, Bogost & Mateas, 2011, p. 1), i.e. "through rule-based representations and interactions rather than the spoken word, writing, images, or moving pictures" (p. ix). We can find procedural rhetoric in diverse software including applications, text-editing processors, databases and so on, as well as videogames.

Bogost develops his discourse around the persuasive potential of political, advertising, and learning videogames. Our aim is not to go deep into these three categories nor into the persuasiveness of games. Suffice it for us to say that Bogost's perspective highlights a key feature of videogames and the way in which they communicate, convey meaning, and therefore (can) tell stories and also their use of rules and computation in an expressive, rhetorical way. If videogames, differ-

ently from other visual media, allow users to interact with a set of rules and automated processes, then the fact that these rules and processes can serve as a cradle for the meaning(s) they attempt to convey can be pivotal to understand how videogames themselves can communicate. Before proceeding, it is also worth specifying that, concerning the link between narratives and meaning and as highlighted by Madsen and Johansson, videogames can also construct non-narrative rhetorical meaning, and therefore potentially be "a medium of artistic expression" regardless of their potential narrative power. Following Madsen and Johansson's take, "focusing solely on the narrativity of computer games may result in a limitation of the view of the contribution of computer games to the field of literary expression", because "although it is common to think of computer games in terms of their relation to narrativity, we think it is interesting to consider their expressive powers in terms of the way we think they may construct non-narrative meaning" (Madsen & Johansson, 2002, p. 75).

Limiting oneself to procedural rhetoric in the understanding of how videogames can communicate and mount statements, one runs at least two risks: the risk to "identify play with reason, to control play and guide it to a predetermined purpose", and "to foster the dominant idea of the designer as the provider of meaning for the game" (Sicart, 2011). In highlighting the significance of procedural rhetoric in videogames expressivity we shall consider, therefore, that there is also always an ongoing process of appropriation by the player of that rhetoric throughout the act of playing itself. In *Against Procedurality*, Miguel Sicart focuses his scrutiny on the role of the player. For Sicart, play does not include only the logic of the game or its procedurality, i.e. rules, procedures, and performance of play according to, or counter to, those same rules and procedures; instead, "[it] is a part of [player's] expression, guided through rules, but still free, productive, creative", and therefore "it also includes the values of the player" (Sicart, 2011). One of the defining features of play is precisely its openness, which allows the player freedom to

explore and at the same time to express (as well as to inter-
pret) values, messages, and so on. It is only as long as there is
a user that games and technology can be expressive. Users do
not only 'activate' and use videogames, but at the same time
exercise their personal freedom within them and are free to
'make' their own meaning of the videogame experiences.
This is because, rephrasing Miguel Sicart's claim, "[meaning
is] intimately and ultimately personal" (Sicart, 2011). Sicart's
reading significantly both contradicts a 'designer-dominant'
perspective (that could be fueled by proceduralism) and
redefines the importance of rules; of course rules structure
play but they cannot completely determine it as "they are
still subject to the very act of play", i.e. to "an act of appropria-
tion of the game by players". This is particularly evident in
the case of abstract videogames, or with subtle narratives. In
such cases players have to be smart, interpretative, and think
for themselves, actively and effectively co-creating stories
(Wills, 2018).

OTHER RHETORICAL DEVICES AND THE EVOKING OF
MEANING

Up till now we have considered how videogames can use,
by design, their defining feature of procedurality as rhe-
torical means and at the same time how their production
of meaning can only happen throughout a player's personal
appropriation of those same designed rules and procedures.
Apart from this, the expressiveness of videogames can be
channelled through other rhetorical devices, e.g., as already
mentioned, for Bogost "visual rhetoric [i.e. visual rhetorical
devices] is often at work in videogames, a medium that de-
ploys both still and moving images" (Bogost, 2007, p. 24). De-
spite the undeniable fact that, as claimed by Galloway, "the
game theorist must talk about actions" (Galloway, 2004), it is
also worth noting that videogames make use of other rhetor-
ical devices that "simply [do] not account for procedural rep-

resentation" (Bogost, 2007, p. 25) in order to convey meaning. On one hand, it is possible to characterise general processes and videogame processes too, with for example visual images (p. 31) sounds or written words. On the other hand, rhetorical devices such as written discourses, visual images, sounds, music, multi-layered/multi-medial narratives and so on and so forth can also be implemented in videogames to help the player in generating new meaning.

Following Michael Nitsche's *Video Game Spaces* (2008), "evocative narrative elements" (ENEs) are implemented to "encourage players to project meaning onto events, objects, and spaces [in videogames]"; they help players to "infuse significance" and therefore to "form narratives" (p. 44). Such ENEs are defined as "foundational building blocks" (p. 37) at the basis of the structuring of players' comprehension of the game. They "can be anything and any situation encountered" that can structure such a comprehension (p. 37). The aim of ENEs "is not to tell a linear story, but to provide evocative means for the interactor to comprehend the virtual space and the events within it, and generate context and significance in order to make [it] more meaningful. While the reader of a novel is limited to the given text, the player of a game interacts with these evocative elements, *cocreates* them, and changes them." (p. 45). Two remarks are needed here: firstly, like Miguel Sicart, Michael Nitsche too is emphasising the role of the player in the construction of videogame meaning –he stresses elsewhere that ENEs are not stories themselves "but suggestive markings [aimed at triggering] reactions in players in order to help them to create their own interpretations", and as a consequence "[videogames'] stories are never in the piece itself but in the mind of the player" (p. 44). Secondly, Nitsche claims that "such an approach has obvious parallels to semiotics", inasmuch as "[videogames] depend on representation and sign systems" (p. 3): we find it fruitful then to understand ENEs as widely intended rhetorical devices and vice versa –i.e., visual images, sounds and soundtracks as well as written discourses in

pop-up vignettes or dialogues could all be ENEs in Michael Nitsche's sense. Rhetorical devices as ENEs help players to understand and contextualise procedures and therefore form their own meaning of the game.

As an alternative, it is worth mentioning that videogames can also make use of rhetorical devices independently from procedures. Such is the case of cutscenes, as for example videogames such as *Metal Gear Solid 4: Guns of the Patriots*, which features a total of more than nine hours of cutscenes, uses cinematic devices to help players produce meaning apart from gameplay and procedures. Of course, even cinematic narrative has consequences in players' understanding of in-game procedures and mechanics. Thanks to a cinematic, a player can understand what is going on in a certain gameplay section. However, in such cases rhetorical cinematic devices take the player away from game spaces, Michael Nitsche's focus, and relocate him/her in cinematic spaces. If the use of images and visual rhetorical devices during play makes videogames no longer "slave[s] of the image [as] players are free to explore and interact with it directly" (Nitsche, 2008, p. 85), cutscenes and cinematics "are designed and produced much as they would be for film or television", and therefore provide players "a finished, polished, [...] movie that is scripted from start to end [in which] all dialogues, music, and other sounds are planned to unfold in a controlled way" (Mitchell, 2012, p. 199).

VIDEOGAMES AS TEXTS

So far, we have highlighted how the subjective dimension of play strongly influences the videogames' possibility to convey meaning and therefore create narratives, both through procedurality and through a number of other rhetorical devices: "procedurality explains the whys and hows of how game technology operates and how games can aspire, as designed objects, to funnel behaviors for reflection. Play, however, is personal, individual, and communitarian, played

with others, for others, in an intensely, deeply personal way" (Sicart, 2011). If we consider interactivity as the main defining feature of play playing a videogame, (Rouse, 2004), and if we admit that interactivity is a player-focused concept, then of course we have to retain players as crucial in how videogames can be expressive and therefore construct narratives. For our purpose, it is worth linking what we have claimed so far concerning videogames expressivity with semiotics, and therefore with approaches that focus on videogames' textuality rather than on their procedurality. Of course, no approach will question the fact that videogames are playable artefacts, as explained above, and that as a consequence their procedurality is to be considered as essential. With this paper our aim is not to empasise into what a text is or could be. Suffice it to say that for us texts are "meaningful wholes" (Gorlée, 2004), or, as stated by Steven J. DeRose, David G. Durand, Elli Mylonas and Allen H. Renear (1990), "ordered hierarchies of content objects". We refer the reader to more thorough and appropriate literature available in Aston and Savona (1991).

Among others, scholars such as Espen J. Aarseth and Agata Meneghelli suggest that one should consider videogames as texts. Meneghelli claims that videogames are "concatenation between text and practices" (Meneghelli, 2011, p. 25), in which designed texts ('games') aim at generating game practices that in turn can be further understood as texts themselves (both the videogame and the gameplay, according to Meneghelli, are better understood as texts in a classical and semiotic sense) (p. 25). For Meneghelli, of course, "one cannot deal with a videogame without considering game practice within which the text-videogame produces meaning" (p. 26). Accordingly, Aarseth defines videogames as a (relatively) newly born kind of text: a computer-mediated narrative, ergodic and interactive and based upon two distinct technological levels (the surface-level and the level of the codex) (Aarseth, 1997) text. This understanding entails that, just like for any other text, if we interpret videogames

as cybertexts we cannot distinguish between the text itself (the 'game', to use Meneghelli's lexicon) and its readings ('game practices' according to Meneghelli): "on the one hand we need the image of 'the text' in order to focus on anything at all; on the other hand we use the metaphor of 'reading' to signal that our apprehension of a text will always be partial, that we never quite reach the 'text itself,' [in our case: 'game itself', as separated from play, ndt.] a realisation that has led certain critics to question the very existence of such an object" (Aarseth, 1997, p. 20). Rephrasing Umberto Eco's take on Saussure's semiotic theory we could therefore claim that videogame meaning, as of a text, is something that has to do with the activity of individuals (Eco, 1993), i.e. players.

Despite the fact that they cannot deny a certain emphasis on play, procedures, and practices, textual approaches to videogames help us in viewing them as conceivers and producers of sign sequences, enacted by the action of a player. Umberto Eco provides a definition of such emitted signs as images, gestures and objects which, beyond their physical functions, aim to communicate something. It is worth noting at least two defining features about Eco's understanding of such emitted signs, namely intentionality and work spent. We shall briefly delve into these features before we proceed. If we consider an emitted sign as intentional, then we assume that it is bound to certain motivational purposes which push one or more subjects to communicate something (being it an idea, an advice, etc.) using something else (an object, an image), i.e. through the use of the aforementioned emitted sign. Being videogames (at least mostly) designed texts, it is easy to find such sign sequences therein. In *The Witcher 3: Wild Hunt* we may consider as an emitted sign a large number of ENEs, be they a wrecked coach along the road, a set of footprints through the mud, cries for help of someone in danger or a sudden change of tone in the soundtrack. All these cues have been implemented to precisely communicate something to the player, e.g. the fact that a dangerous beast is approaching.

On the other hand, in claiming that an emitted sign sequence does work we acknowledge that every intentional choice of positioning, composing and arranging of that specific sign sequence takes a certain 'physical effort'. This is to say that that coach, those footprints and that soundtrack have been purposely crafted with great effort, implemented, and positioned by someone who has spent a great deal of time and work to do so.

If, as we have seen we aim to consider videogames as texts, then ENEs are to be considered as emitted sign sequences in Eco's sense: they are there to be read, interpreted and activated, and therefore evoke the production of meaning in the reader/player. Videogame developers can implement texts, dialogues, images, animations of three-dimensional models or two-dimensional sprites, sound effects and music as well as procedures with rhetorical meaning with the exact intent to produce a 'meaningful whole', i.e. a 'text' that can produce meaning if appropriated by a 'reader'. In the context of this paper our inquiry will be limited to the use of visual images in videogames, which we may call Visual Narrative Elements (from now on: VNEs), i.e. the graphical representation of characters, environments, objects and spaces with which it is possible for players to interact. All those VNEs, perceivable solely through sight, are to be considered intentionally implemented and positioned by game designers with the aim of communicating a meaning, be it providing information, narrating something or more generally telling something to players. We will therefore exclude unintentional VNEs/signs such as graphical glitches or the like, as well as music and sound effects, spoken dialogues and so on which obviously could have a significant role in communicating to the player too.

On this basis, a further clarification is needed regarding a specific VNE –the representation of a written text. Videogames frequently use written texts as a means to keep the player informed or to form narratives and convey meaning in general. We will, however, only consider visual representations of texts such as signals and texts on the walls. This is

being done because our aim is to distinguish between represented and representational VNEs, following the distinction made by Colombo and Eugeni between game space and HUD (Colombo & Eugeni, 1996).

VISUAL NARRATIVES WITHIN VIDEOGAMES

One of the most interesting frameworks of narrative potential of videogames is found in Henry Jenkins,' *Game Design as Narrative Architecture* (2003), with which the scholar purposefully tried to end the dispute between ludology's and narratology's approaches to game theory. In providing a framework for the various 'interplays' between videogames and narratives, Jenkins attempted to give an intermediate solution to the debate.

It is worth mentioning three preliminary remarks that Jenkins makes before introducing his understanding of videogames as 'narrative architectures'.

Firstly, he calls for the need to step aside from classic, linear understandings of narrative towards a wider view, open to "other kinds of narratives, not only the modernist and postmodernist experimentation that inspired the hypertext theorists but also popular traditions that emphasise spatial exploration over causal event chains or which seek to balance the competing demands of narrative and spectacle" (Jenkins, 2003, p. 3).

Secondly, Jenkins stresses the significance of the role of the listener-player in activating and understanding narrative processes. Thirdly, he remarks that videogames can of course tell stories as a whole but smaller "narrative elements might enter games at a more localised level" (p. 3), making sub-narratives, micro-narratives, or references to other narratives possible.

Non-canonical forms of narrative, active role of the receiver/player and detailed presence of narratives contribute to the narrative potential of videogames. Additionally and

similarly to Michael Nitsche, videogames for Jenkins can be narrative due to their spatiality: they allow players to move, explore and act within designed digital spaces able to convey meaning and evoke narratives themselves.

Henri Jenkins' model also identifies four kinds of narrative in videogames: evoked, enacted, embedded, and emergent. Although this model refers to the videogame text as a whole, in the following paragraphs we shall try to apply these four categories to VNEs in our attempt to provide an overview of how graphical visual images can be used for narrative purposes. Though we have kept them separate for analytical purposes, the following categories are to be considered as intertwined and in dialogue with one another.

Graphic-Evoked Narratives

According to Henry Jenkins (2003), "spatial design can either enhance our sense of immersion within a familiar world or communicate a fresh perspective on that story through the altering of established details" (p. 12). Some videogames are set in imaginaries that players are already familiar with in an extra-ludic sense (Howell, 2016). This can trigger a process of anticipation by players. Jenkins explains this narrative architecture by remembering that the mere fact that a game is called in a certain way, for example *Marvel's Spiderman* recalls, in the player, the previous knowledge of that superhero. Moreover, the fact of being in a digital representation of New York which features fictional buildings made famous by movies or comics –e.g. the Avengers tower, or the Daily Bugle's headquarter (all elements that are only present in Marvel's New York version)– accentuates, through purely visual elements, the sense of being inside a specific story or narrative environment. The same evocative process can also occur in a trans-ludic way, namely evoking an imaginary that is inspired by another videogame, or videogame franchise. This, for example is the case of *Uncharted 4: A Thief's End*, where one may come across a painting representing Guybrush Threepwood, the

Fig. 1 *Uncharted 4:* Druckmann, N. (2016). *Uncharted 4: A Thief's End*, videogame, Tokyo, JP: Sony Computer Entertainment.

main character of *The Secret of Monkey Island* and all the other games of that saga.

Another thing that may happen is if game designers implement divergent elements that propose other possible narratives in order to evoke, in the player a certain imagery yet with a certain dissonance. This is what happens, for example, in *Wolfenstein 2: the new colossus*, in a dystopian reality where Nazi Germany won the Second World War sets a real well-known scenario (the world after the Second World War) but enriched with elements that alter it (the victory of the Reich).

What does it mean, then, to trigger such a process with graphical-visual devices?

In *Wolfenstein 2: the new colossus*, the player visits an American 70s-fashioned town controlled by the Nazi regime. The street is bedecked with swastika drapes and is full of stalls selling hot dogs and people strolling casually. The drapes and swastikas not only have a 'decorative function' (Clark & Lyons, 2004) but are there to evoke in the player a narrative imaginary that, specifically in this example, is strongly inspired by real historical facts while is dissonant from what its surrounding. There is no need to explain what that symbol is: the player immediately recalls previous knowledge about it and re-negotiates it with the context of the game.

Fig. 2 Öjerfors, A., Berg, A., & Afzoud, A. (2017). *Wolfenstein II: The New Colossus*, videogame, Bethesda, MD: Bethesda Softworks.

Enacted Visual Narratives

Although Henry Jenkins does not consider 'enacted' and 'enacting' narratives as two separate concepts, this distinction is useful to understand how this category fits with videogames' visuals. For Jenkins, the concept of enacted narratives refers to how the "story itself may be structured around the character's movement through space and the features of the environment may retard or accelerate that plot trajectory" (Jenkins, 2003, p. 12). This means that the concept is strongly related to spatiality and agency in videogames.

According to Jenkins, a videogame's narrative is composed of two levels that can work in parallel or together. Whilst the former defines the player's main purpose suggested by the game the latter provides the space for more circumstanced narrative elements that Henry Jenkins calls 'localised incidents', or 'micro narrations'. It is the very player who feeds, directly with his action, the pace of the narrative, now activating scripted sequences –for example, by defeating an enemy–, now lingering on actions that do not trigger such sequences. The concept of Enacted narratives is strongly related to that of spatial action inside a game. How, then, can it be transposed merely in terms of graphics elements?

Graphic-enacted narratives can be considered as all the cases where game designers stage in-game scenarios where players are called to 'solve' the situation by means of creating or perturbing a graphic element (or a set of them) by exercising an "environmental manipulation" (D'Armenio, 2014). This action by the player immediately becomes an integral part of the game world, thus activating a narrative sequence.

In *Crayon Physics Deluxe*, for example, the player has to solve puzzles through the action of 'drawing' the elements necessary to lead a ball from A to B. Although the narrative here is very simple where the story is limited to that of a ball falling from an apple tree and having to reach a certain place, it can only be activated (or, in this case, enacted) through the concrete action of the player, which is aimed at producing a new visual sign (be that a line, a square, or whatever).

Another similar example which is more related to the dimension of perturbing rather than that of creating is Gorogoa. In this game the player is not called to draw or create anything, rather he or she is asked to graphically change the order of the given tiles representing parts of the story and literally creating new visuals that trigger sequences of the story. We shall consid-

Fig. 3 Signal, B. (2017). *Gorogoa*, videogame, Los Angeles, CA: Annapurna Interactive.
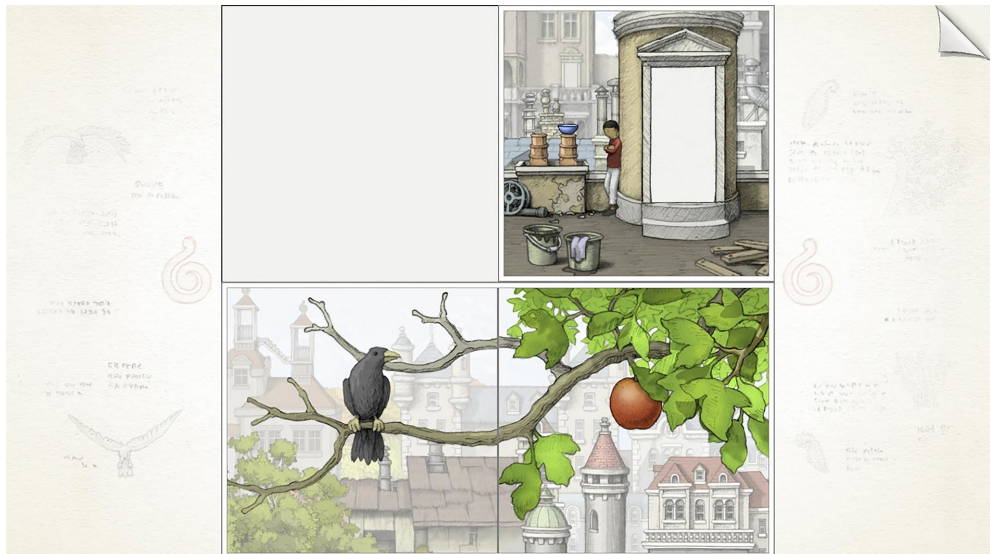
er as 'enacted visual narratives' of *Gorgoa* the completed narratives that emerge from players' choices once they order the tiles correctly. As we may notice, 'enacted visual narratives' are visual narratives that occur as a result of intentional choices made by the player in response to a narrative (or procedural) stimulus, i.e. the need to 'get to the other side' in *Crayon Physics Deluxe*, or the need to 'give shape to a meaningful narrative' in *Gorogoa*.

Enacting Visual Narratives

While the concept of enacted narratives focuses more on the player's action and his will to proceed with this action, we would like to try to give to the concept of enacting narratives a different connotation which focuses more on the implications in terms of meaning that certaingraphical elements have and what the gamers do with that. For Henry Jenkins, "The organisation of the plot becomes a matter of designing the geography of imaginary worlds, so that obstacles thwart and affordances facilitate the protagonist's forward movement towards resolution" (Jenkins, 2003, p. 7).

We can describe 'enacting visual narratives' as visually mediated narratives staged by designers that aim at suggesting players' actions to perform or narratives to enact.

An example of this can be found in *The Legend of Zelda: Breath of the Wild*, at the very beginning of the game. Here the player manages to get out from a cave and is faced for the first time with the sight of the outside game world. The game provides him/her with a breathtaking view at the very centre of which is a silhouetted castle surrounded by a weird purple fog. That castle is where the main antagonist of the game is lurking. With a single image, the game provides the player with hints about the mission he/she will have to deal with, indirectly inviting him/her to face an unknown menace and thus 'enacting' the overarching narrative of the game.

The 'invitation' of course is effective, in a narrative sense, only if the players respond to it whilst being engaged in an "actant role" (Greimas, 2000). To have a more complete dissertation about how players can play actant roles, see D'Armenio (2014).

Fig. 4 Aonuma, E. (2017). *The Legend of Zelda: Breath of the Wild*, videogame, Kyoto, JP: Nintendo.

Embedded Visual Narratives

Henry Jenkins (2003) defines this narrative architecture as "an active process by which viewers assemble and make hypotheses about likely narrative developments on the basis of information drawn from textual cues and clues". According to him, game designers can structure two different kinds of narrative approaches: "one relatively unstructured and controlled by the player as they explore the game space and unlock its secrets; the other pre-structured but embedded within the mise-en-scene awaiting discovery" (p. 9).

Graphic-Embedded narratives can be interpreted as those visual elements intentionally positioned by programmers which directly or indirectly 'inform' about the game world, or narrative: clues about the story of the world and hints about characters' backgrounds assume a function that Chopeta Lyons and Ruth C. Clark would define as organising, i.e. they show qualitative relationships between the elements of a system.

The aforementioned example from the *Witcher 3: Wild Hunt* falls in this category. Of course, the message has to be interpreted in such a way that where some players may only see a simple wrecked coach, others may interpret it as a sign, warning about the presence of a beast, others may focus on the

pieces of leather and some tools strewn around and even start wondering about the profession of the coach's owner as a consequence, assuming that he was a shoemaker. Interpretations of embedded narratives are as free as the act of playing itself, though they too are constrained by the videogame text itself.

The difference between embedded and enacted narratives lays precisely in the kind of operation that the player can (or cannot) make when confronted with the graphical stimulus which could lead to the performing of actions and the interpretation of that sign by the player. If the visual stimulus leads to a certain action, then the visual narrative that could emerge is to be considered as 'visual enacted narrative'. If the stimulus leads only to interpretation then the narrative it provides could be seen as 'visual embedded narrative'. Chopeta Lyons and Ruth C. Clark identify this mechanism as the image's interpretative function which implies an active and fundamental role of receiver who is called to give meaning to what he sees.

Emergent Visual Narratives

Ultimately, Henri Jenkins identifies as emergent narratives those narratives in which narrative potential is conveyed by the player's ability to customise or create new elements of the game. For Jenkins, the creation of a house in *The Sims* is not only the creation of a unique space, but also the creation of a new narrative in which the player is the main author and director.

The graphic-emergent narrative therefore concerns all those games that allow the creation of graphical assets by the player which furthermore assume a purely subjective meaning. Games like *Minecraft* which 'allow' players to shape their own game world have the possibility to build houses and cities, to shape the profile of mountains and choose whether to create rivers, lakes... literally anything that can be created.

All this potential allows players to 'craft' not only the game world but also to imagine the potential narrative meanings that each created object could have. For example, creating a house, rather than, let's say, a museum, is already an emergent narrative with a specific meaning.

Fig. 5 Persson, M.
(2009). *Minecraft*,
videogame. Stoccolma,
SE: Mojang.

CONCLUSIONS

The aim of this paper was to provide a general overview of how videogames can deliver narratives especially through their visual features and graphical elements by providing a framework of five visual narratives in games relied on Henri Jenkins' understanding videogame narratives.

In the first part of the paper we considered how videogames can be expressive and therefore convey meaning by taking into account how meaning is ultimately inferred and constructed by players, but triggered, accommodated, and helped by rhetorical devices implemented by design in videogames themselves. By arguing over scholars such as Ian Bogost, Miguel Sicart, and Michael Nitsche, we provided an overview on game studies' understanding of how videogames can help players create their own meaning of the game thanks to (1) procedural rhetoric, (2) other rhetorical devices such as evocative-narrative elements, and (3) other rhetorical devices, (partially or completely) separated from procedures and gameplay. We then considered how videogames can be understood as texts, and therefore as systems of signs, basing upon Espen J. Aars-

eth and Agata Meneghelli's approaches. In the final part, we introduced Jenkins' model of narratives within games, and then provided a framework of five kinds of graphical narratives namely: evoked, enacted, enacting, embedded, and emergent.

Evoked visual narratives refer to those situations where the fact that some videogames are set in scenery/backdrop already known to gamers may ignite a process of anticipation that allows the game narrative context to exercise a greater sense of involvement by evoking what the player already knows about such contexts.

Enacted visual narratives can be considered all the cases where game designers stage in-game scenarios where players are called to 'solve' the situation by means of creating or perturbing a graphic element (or a set of them) that immediately becomes an integral part of the game world, thus activating a narrative sequence.

Enacting visual narratives refer to all those visual elements staged by the designers with the intention to suggest to the players an action with a specific scope.

Embedded visual narratives refer to those visual elements intentionally positioned by developers which contain information about the context of the game.

Emergent visual narrative concerns all those games that allow the creation of graphic assets by the player, such assets assuming that for the person they have meaning within a context of reference absolutely internal to the subject.

Of course, further debate is accepted and welcomed for our present attempt. Since we have limited our enquiry to 'classical' videogames such as console games or computer games, an attempt to apply this framework of visual narratives to VR games or augmented reality games, could be fruitful and could shed light on how different digital spaces use visual-narrative elements differently. Furthermore, it could be useful to use this framework to deepen into specific case analysis, and to see how different visual narratives can be distinguished by both players and designers.

ACKNOWLEDGMENTS

REFERENCES

Aarseth, E. J. (1997). *Cybertext. Perspectives on Ergodic Literature*. London, UK: The Johns Hopkins University Press.

Aonuma, E. (2017). The Legend of Zelda: Breath of the Wild (Switch version) [Videogame]. Kyoto, JP: Nintendo.

Aston, E., & Savona, G. (1991). *Theatre as Sign System: A Semiotics of Text and Performance*, London, UK: Routledge.

Bogost, I. (2007). *Persuasive games: The expressive power of videogames*. Cambridge, MA: The MIT Press.

Bogost, I., Ferrari, S., & Schweizer, B. (2010). *Newsgames: Journalism at Play*. Cambridge, MA: The MIT Press.

Calleja, G. (2011). Emotional involvement in digital games. *International Journal of Arts and Technology*, 4(1), 19-32.

Cameron, C., Cooper, J., Daly, M., Goodsell, J., & Stuart, M. (2018). Marvel's Spiderman (PlayStation) [Videogame]. Los Angeles, CA: Insonmniac Games.

Clark, R. T., & Lyons, C. (2004). *Graphics for learnings: Proven Guidelines for Planning, Designing, and Evaluating Visuals in Training Materials*. San Francisco, CA: Pfeiffer.

Colombo, F., & Eugeni, R. (1996). *Il Testo Visibile. Teoria, Storia e Modelli di Analisi*. Roma, IT: La Nuova Italia Scientifica.

D'Armenio, E. (2014). *Mondi Paralleli: Ripensare L'interattività Nei Videogiochi*. Milano, IT: Unicopli.

DeRose, S. J., Durand, D. G., Mylonas, E., & Renear, A. H. (1990). What is text, really? *Journal of Computing in Higher Education*, 1, 3-26.

Druckmann, N. (2016). Uncharted 4: A Thief's End (Play Station) [Videogame]. Tokyo, JP: Sony Computer Entertainment.

Eco, U. (1993). *Trattato di semiotica generale*. Milano, IT: Bompiani.

Frasca, G. (2003). Ludologists love stories, too: notes from a debate that never took place. In *Digital Games Research Conference 2003 Proceedings*. Utrecht, NL: Utrecht University.

Fullerton, T., Christopher, S., & Hoffman, S. (2004). *Game Design Workshop. Designing, Prototyping and Playtesting Games*. San Francisco, CA: CMP Books.

Galloway, A. R. (2004). Social Realism in Gaming. *Game Studies, 4*(1).

Gilbert, R. (1990). The Secret of Monkey Island (PC version) [Videogame]. San Francisco, CA: LucasArts.

Gorlée, D. L. (2004). *On Translating Signs: Exploring Text and Semio-Translation*, Amsterdam, NL: Rodopi.

Gremais, A. J. (2000). *Semantica Strutturale.* Roma, IT: Meltemi (Original work published 1966).

Howell, P. (2016). A Theoretical Framework of Ludic Knowledge: A Case Study in Disruption and Cognitive Engagement. In *The Philosophy of Computer Games Conference 2016 Proceedings*. Potsdam, DE: Potsdam university press.

Jenkins, H. (2003). Game Design as Narrative Architecture. In P. Harrington & N. Frup-Waldrop (Eds.), *First Person*. Cambridge, MA: The MIT Press. Retrieved October, 23, 2020 from https://pdfs.semanticscholar.org/f82f/061e7a44530d1dee281b96d9b1640485aa74.pdf?_ga=2.174005411.1852089782.1587115709-1966228786.1586533435

Juul, J. (2001). Games Telling stories? A brief note on games and narratives. *Game Studies, 1*(1).

Kojima, H. (2008). Metal Gear Solid 4: Guns of the Patriots (PlayStation) [Videogame]. Tokyo. JP: Konami.

LucasArts (1990-2010), & Telltale Games (2009). Monkey Island (Series) (PC version, PlayStation) [Video game]. Burbank, CA: Disney Interactive.

Madsen, H., & Johansson, T. D. (2002). Gameplay Rhetoric: A Study of the Construction of Satirical and Associational Meaning in Short Computer Games for the WWW. In *Computer Games and Digital Cultures Conference 2002 Proceedings*. Tampere, FI: Tampere University Press.

Meneghelli, A. (2011). *Il risveglio dei sensi. Verso un'esperienza di gioco corporeo*. Milano, IT: Unicopli.

Mitchell, B. L. (2012). *Game Design Essentials*. Hoboken, NJ: Wiley.

Murray, J. (2005). The Last Word on Ludology vs. Narratology in Game Studies. In *Digital Games Research Conference 2005 Proceedings*. Vancouver, CA: Authors & Digital Games Research Association DiGRA.

Nitsche, M. (2008). *Video Game Spaces. Image, Play, and Structure in 3D Game Worlds.* Cambridge, MA: The MIT Press.

Öjerfors, A., Berg, A., & Afzoud, A. (2017). Wolfenstein II: The New Colossus (PC version, Nintendo Switch, PlayStation) [Videogame]. Bethesda, MD: Bethesda Softworks.

Pérez-Latorre, Ó., Oliva, M., & Besalú, R. (2016). Videogame analysis: a social-semiotic approach. *Social Semiotics, 27*(5), 586-603. doi:10.1080/10350330.2016.1191146.

Persson, M. (2009). Minecraft (PC-version) [Videogame]. Stoccolma, SE: Mojang.

Purho, P. (2009). Crayon Physics Deluxe (PC version) [Videogame]. Helsin-
ki, FI: Kloonigames.

Rouse, R. (2004). *Game Design: Theory and Practice*. Sudbury, MA: Wordware
Publishing Inc.

Sicart, M. (2008a). Defining Game Mechanics. *Game Studies, 8*(2).

Sicart, M. (2008b). Newsgames: Theory and Design. In S. M. Stevens & S.
J. Saldamarco (Eds.), *Entertainment Computing - ICEC 2008. ICEC 2008.
Lecture Notes in Computer Science* (Vol. 5309). Berlin, DE: Springer.
doi:10.1007/978-3-540-89222-9_4

Sicart, M. (2011). Against Procedurality. *Game Studies, 11*(3).

Signal, B. (2017). Gorogoa (PC version, Nintendo Switch, PlayStation) [Vid-
eogame]. Los Angeles, CA: Annapurna Interactive.

Tomaszkiewicz, K. (2015). The Witcher 3: Wild Hunt (PC version, Nintendo
Switch, PlayStation) [Videogame]. Varsavia, PL: CD Projekt.

Treanor, M., Schweizer, B., Bogost, I., & Mateas, M. (2011). Proceduralist
readings: How to find meaning in games with graphical logics. In *Pro-
ceedings of the 6th International Conference on Foundations of Digital Games*
(pp. 115–122). New York, NY: ACM. doi:10.1145/2159365.2159381.

Wills, J. (2018). Far Cry 5: cults, radicalism and why this video game speaks
to today's divided America. *The Conversation*. Retrieved October 23,
2020 from https://theconversation.com/far-cry-5-cults-radicalism-
and-why-this-video-game-speaks-to-todays-divided-america-95000.

Wills, J. (2019). Is Call of Duty really promoting anti-Russian propaganda?
The Conversation. Retrieved October 23, 2020 from https://theconver-
sation.com/is-call-of-duty-really-promoting-anti-russian-propagan-
da-126459.

How to cite

as article

Soriani, A, & Caselli, S. (2020). Visual Narratives in Videogames: How Videogames Tell Stories Through Graphical Elements. *img journal*, *3,* 474-499.

as contribution in book

Soriani, A, & Caselli, S. (2020). Visual Narratives in Videogames: How Videogames Tell Stories Through Graphical Elements. In M. Treleani, F. Zucconi (Eds.), *img journal 03/2020 Remediating distances* (pp. 474-499). Alghero, IT: Publica. ISBN 9788899586164