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Part I

Game Design and Aesthetics

1

The Aesthetic Vocabulary of Video Games

Joost van Dreunen

‘... to what extent can culture itself be characterized as play ...’
Jan Huizinga, *Homo Ludens* (1938)

The social relevance of media technological development lies in its potential to (re)introduce novel elements to human communication and cultural expression. With a greater variety of tools at their disposal, people are able to understand, manipulate and express their experience of reality in different ways. This in turn may have dramatic effects on the underlying principles of social coherence: ‘the principal effect of media technology is on social organization’ (Carey, 1988, p. 302). Ultimately, how we communicate tells about how we relate.

In recent years, video games have grown into a defining cultural element. In interpreting this new phenomenon, tropes such as Murray’s (1997, p. 185) ‘participatory narratives’, Aarseth’s (1997, p. 1) ‘ergodic’ texts, or Frasca’s (2001) focus on sociopolitical game mechanics are now required reading. These theoretical strands all agree on the meaningfulness of the video-game experience, yet do not extensively comment on its *visual* foundation. In this context, it is important to distinguish between *electronic* or *computer* games, referring to electronically enhanced or computer-based games, and *video* games, characterized by a screen through which a player interfaces with the game (world). The central role of ‘video’ in game play warrants a discussion of the aesthetic characteristics integral to the larger economy of syntactic elements and representative of the principles underlying and guiding its communicative potential. Because video games mediate experience, the building blocks of their visual dimension contain important clues that reflect on the social organization of contemporary society. By identifying some basic visual elements of typical mainstream video-game imagery, we may begin to answer the

question: what is it exactly that we see when we see it, and what does this say about us?

A medium, by definition, represents an externality through which, by internalizing its logic or grammar, people can communicate. In strict sociological terms, the analysis of media concerns itself with the relations between people. More precisely, it is concerned with the social conventions and media technological conditions that facilitate social cohesion. Therefore, describing the visual vocabulary of video games is not merely an exposé of contemporary aesthetics, but is an investigation into the underlying patterns of social interaction. Following Aarseth (1997, p. 17): 'The emerging new-media technologies are not important in themselves, nor as alternatives to older media, but should be studied for what they can tell us about the principles and evolution of human communication'. Subsequently, in order to understand how video games fit into the existing spectrum of cultural expression, we must investigate the elements of the vocabulary that need to be internalized in order to participate meaningfully with(in) it.

Contemporary media

Reading requires mastery of the alphabet. Similarly, video games deploy predominantly (moving) imagery, requiring an understanding of its particular visual syntax, grammar and vocabulary. This epistemological demand simultaneously facilitates and influences communicative exchange because of its particular organizational logic, or its 'incarnate grammatical order' (Dewey, 1958, p. 172). Not surprisingly, the prevalent modes of communication and the organizational logic of society are intimately related (Innis, 2003). Traditionally, in order to understand a particular historical moment in social organization and 'style of life', one studies the mediating social and technological conventions, such as capitalism or the introduction of standardized time (Simmel, 1990, p. 429; Gallison, 2003).

A fertile place for investigating the organizational logic underlying video-game syntax lies in the dialectical relation between a customary media technology and the social conventions that constitute a communicative exchange. Contracting the key concepts – medium and dialect – produces a 'medialect'. The function, meaning and significance of a medium changes constantly because of its adherence to the fluid practices of both social convention and technological development. Succinctly speaking, daily life – how it is experienced and expressed – reverberates within any language, whether oral, written or otherwise. Thus, social groups

formulate their own grammar (sociolect), as does an individual (idiolect), in accordance with a rule-set analogous to that of a geographically located dialect. And, in this process, technologies facilitate communication and cultural expression in unpredictable ways. The term medialect then refers not merely to the dynamic exchange between technology and communicative expression, but to the very principle that language is irrevocably fluid, irrespective of the attempts to control, standardize and legitimize it (Rossiter, 2003). Finally, the popularization of a new syntax builds upon the existing ones and in the process eclipses them.

A medialect equally deploys both a socially constructed grammar and pervasive use of mediating technology, since both impose a particular combination of affordances and restraints. The term medialect, as a theoretical construct, corresponds to 'technological interactionism' in which 'social processes are not influenced by technological developments (as in technological determinism), nor are they solely controlled by human negotiations (social constructivism), but by both' (Raessens, 2005, p. 379). This bilateral process constitutes the external conditions under which communication takes place, and is pervasive throughout the exchange itself. 'The aesthetic dimension of new media resides in the processes – the ways of doing, the recombination of relations, the figural dismantling of action – that constitute the abstraction of the social' (Rossiter, 2003, p. 105).

In summation, meaningful exchange within a particular medialect demands the internalization of its grammatical rule; subsequent changes or the emergence of an entirely new one may indicate a structural transformation in communicative exchange and social organization.

The three preliminary concepts central to the medialect of video games are separation, spectacle and speed.

'Mon désir est là sur quoi je tire'¹

Contemporary life is characterized by the plethora of methods through which we are able to extend (fragments of) ourselves beyond our spatial and temporal boundaries. McLuhan (1962) referred to this as the reorganization of the senses, which subsequently alters our experience of reality and has profound social implications. For example, in ostracizing others with our portable music players we open up to and close off certain influences, thereby creating a particular sensory environment and experience. This separation, a self-conscious manipulation or reorganization of sensory input, occurs in video games in two important ways.

Firstly, the visually disconnected position of the player is essential to game-play. More precisely, the separation from the *events* on the screen enables the player to see where she normally cannot: in other words, this is a cultivated way of seeing. Classics such as *Asteroids* (1981) primarily feature a two-dimensional perspective in which a player has a complete overview of the game environment at all times. Following the environmental settings extends into side-scrollers: the background and foreground appear on the right and disappear on the left (*Zaxxon*, 1983), thereby creating an entirely new game mechanic. And finally, the first- and third-person perspectives place the player much closer to the avatar's point of perception, but avoid surrendering the ability to see where the avatar cannot (*Manhunt*, 2003).

While there are many exceptions to this rough developmental synopsis of 'gamic' perspective (borrowing from Galloway, 2006) it serves to underline how the visual separation between a player and the (avatar within the) game is central to game-play. Driving around in *Grand Theft Auto (GTA)* you often have to look 'behind you' in order to successfully estimate the next manoeuvre in a race, chase or flight. Despite its much more detailed environment, perspective in *GTA* is essentially no different from perspective in *Asteroids*: the player can see where the avatar cannot, and internalizing this visual logic is crucial to successfully playing the game.

Secondly, separation from *consequence* is fundamental to a gaming experience. A game in which one is unable to play, lose and play again is not a game. This principle is clearly not exclusive to video games: a televised quiz show offers an obvious parallel. In both cases we participate without suffering the consequences of defeat or victory. This separation is central to the experience and resonates strongly with theatrical theory. In Aristotelian tragedy, for example, 'the spectator has the great advantage of having erred only vicariously: he does not really pay for it' (Boal, 1985, p. 14). Similarly, the popularity of quiz shows does not rely on the *contestants'* success or defeat, but on the *audience's* ability to get a question wrong and keep on playing. Many other visual experiences incorporate a similar logic. The 'horror' genre in cinema requires separation to facilitate experiencing the exhilarating trauma of dying, again and again. Mainstream films such as *Groundhog Day* (1993) and *Run Lola, Run* (1998) also incorporate this ongoing 'enactment of [a] denial of death' (Murray, 1997, p. 175).

Much creative and artistic effort is being spent in testing this boundary. One example is the *PainStation* (2001), which delivers electric shocks to a losing player in an attempt to make the game more 'consequential'

(*PainStation* website, n.d.) Although there are examples of games where the death of an avatar is a nuisance (*World of Warcraft*, 2004), rather than without consequence, it lies in the very nature of video games to be able to start over (to some extent) unconditionally.

The argument here is that visual separation and the frivolous nature of playing are epistemologically consistent, placing video games in a peculiar relation to traditional media technologies. To further illustrate this we must take a step back from the screen and look at what we are seeing.

Video ergo sum

Spectacle is a second characteristic of the video-game vocabulary: the mediated phantasmagoria that transcends any informational value and instead becomes primarily a style, a way of speaking. Historically, there exists a strong relationship between mediation and spectacle. The inventions of the stereograph and the development of the railroad system in the early 19th century, for example, were instrumental in the creation of the panorama (Schivelbusch, 1986, p. 52). The coalescence of these two events facilitated an indulgence in scenery far beyond the quotidian limitations of time and space. Not surprisingly, the widespread popularity of the stereograph vis-à-vis the telescope and microscope, which had a more specialized audience, did not depend so much on its *informational* value, but rather on its ability to provide dazzling visual escapades. The Great Fire of Chicago is considered partially responsible for the popularity of the stereoscope (*The Great Chicago Fire and The Web of Memory*, 1996). Thus, spectacle has been a historic driving force behind a cascading elaboration of visual technologies.

In this context, video games are a next-media technological incarnation designed to appeal to our visual appetite, fuelling the demand for increasing technical capacity of consoles and computers. Looking at the mechanics of each rendition of *Final Fantasy* (*FF*), for example, we must conclude that its game system has only marginally changed over the years. Aesthetically, however, the series continues to evolve. No doubt, the most recent version of the *FF*-series on the PS3 will feature even more stunning graphics but remain loyal to its original rule system. It is the diversity of kinetic spectacle, rather than the function of 'state machines' (Juil, 2005, p. 56), that contributes to existing cultural expression: mediated experiences focus on spectacle as much as on outcome.

In addition to the aforementioned shift from 2D to 3D, greater technical capacity may also revamp existing titles and invigorate game play.

Shinobi, first launched in 1987, has had eight incarnations; it shifted towards a third-person perspective in 2003, and has consistently elaborated its special effects. Likewise *Prince of Persia*, *GTA* and *Duke Nukem* made the switch from 2D to 3D and currently feature vast panoramic landscapes and dazzling effects.

Again, this development is not exclusive to video games. Cinema also has undergone dramatic visual changes. The emergence of the ‘disaster’ genre, with movies such as *Dante’s Peak* (1997) and *The Day After Tomorrow* (2004), shows a trend towards greater spectacle. The large-scale effects of *The Towering Inferno* (1974) are now relatively tame compared to its more up-to-date counterparts. Until the appearance of *Braveheart* (1995), *Independence Day* (1996) and *Troy* (2004), the epic battle scenes in *Spartacus* (1960) remained largely unrivalled. The increasing reliance on spectacle is most obvious in the various episodes in the *Star Wars* saga. Nonetheless, spectacle is not a static composition that stands on itself, merely depending on colour and detail; it is also closely related to *speed*.

Velocity of imagery

If spectacle overshadows the transmission of information as its primary role, so too does *speed*. The tempo of a classic black-and-white movie, remarkably slower than that of contemporary cinema, illustrates the ongoing acceleration in the velocity of imagery. In the visualisation of speed we find the cultural expression of the technological influence on the pace of everyday life (Kern, 1983). Analyzing the changing rural landscape after the introduction of the automobile, Walter Benjamin (1969, p. 250) lamented: ‘film is the art form that is in keeping with the increased threat to his life which modern man has to face.’ Put differently, we acclimatize to the acceleration of daily life by visualizing it.

In the context of a media-saturated culture, however, velocity refers to both acceleration and deceleration, and to their different narrative functions. Borrowing from sports broadcasts, both cinema and video games have incorporated *slow motion*. In several scenes in the movie *The Matrix* the momentum with which characters move is visualized by depicting them as moving very slowly. This technique of using varying velocities as different narrative modes is a cultivated way-of-seeing. Machine-enhanced vision transcends the aesthetic boundaries of exclusively informational media technologies and is integral to game mechanics and narrative structure.

Many video games deploy this elasticity of speed as part of their gameplay. The controversial game *JFK Reloaded* (2004) simulates the assassination

of the US President John F. Kennedy, including a subsequent replay using a 'time-line slider' to watch it at the 'speed of your choice'.² Such a 'slow motion' ability gives the player an edge. The manipulation of 'diegetic' time is central to the game mechanics of *Max Payne* (2001), *Dead to Rights* (2002) and *Gungrave: Overdose* (2004). In *Prince of Persia: Sands of Time* (2003) this correspondence between temporal and visual elasticity is incorporated into the storyline in the form of the main character's 'Dagger of Time'.

In this way speed constitutes a third element of the video-game vocabulary that connects to and elaborates on existing communicative practices.

Preliminary implications

If we add up these three syntactical elements, we can start to consider the implications of the video-games vocabulary. The epistemological consistency between visual separation and the frivolity of play, the communicative style of spectacle, and the elasticity of speed all contribute to a unique sensory experience. While none of these elements are necessarily new or exclusive to video games, it is their coalescence that suggests a unique cultural moment. Paraphrasing Crary (1992, p. 1), the medialect of video games implies 'a sweeping reconfiguration of relations between an observing subject and modes of representation that effectively nullifies most of the culturally established meanings of the terms *observer* and *representation*'. Such changes may indicate a structural transformation in contemporary communicative exchange.

With regards to the first part of our question – what is it that we see? – we must reconsider some of the traditional notions we hold with regard to an 'audience'. Instead of a consumer, reader or receiver, a *gamer* is more of a composer than anything else. The inherently playful, detached vocabulary of video games allows neither the gamer nor the game designer complete control over the experience. This establishes a novel exchange between creator and consumer, producer and receiver, sender and reader. More poetically described, playing a game is closer to 'living inside a symphony than reading a book or watching a movie' (Gee, 2005).

Abandoning the sequential order to create a private narrative is integral to media consumption (Barthes, 1975). Replaying a particular media fragment remains within the traditional 'reading practices' (Jenkins, 1992, p. 17) such as those sanctioned by DVDs. The creator or author remains the sole proprietor of the aesthetic experience. However, a game designer merely hands a player the raw materials with which to create or destroy harmony within the game reality. This is not unlike how a soccer

coach deploys players or an army commander his soldiers. Thus, 'not only the design and production of a computer game, but also its reception and consumption has to be considered an active, interpretive and social event' (Raessens and Goldstein, 2005, p. 375).

In so-called 'resource management' games, such as *Command & Conquer* (C&C, series) or *Civilization* (series), players create a unique visual experience while remaining within the game's narrative structure (for example, to defeat an opponent). The deployment of buildings and mobile units in these games may not deviate from the storyline but a player can create an unanticipated variation of the experience within the game world. '[Y]ou never step into the same video game twice' (Frasca in Perron and Wolf, 2003, p. 227). As part of the game, players build settlements to generate the troops necessary for the successful completion of the game. In this process the aesthetic experience becomes as important as the narrative, because the logic and outcome of a game are indifferent to a player's aesthetic *modus operandi*. The creation and successful management of an army or character eclipses the teleology of its game world, precisely because one can beat the game with *any* combination of aesthetic characteristics. Video games incorporate a creative dimension that represents the 'cultural layer' (Manovich, 2001, p. 46). In computer code such aesthetic differences are meaningless, but they are not on the level of human interface and experience (Johnson, 1997). So *what we see* is a 'cultural interface', because 'we are no longer interfacing to a computer but to culture encoded in digital form' (Manovich, 2001, p. 70). On a micro-level, the extensive character grooming – the continuous organization of the abilities, items, weapons, etc. of an avatar – particularly in role-playing games (RPG) and SIM games, is equal to, if not more important than, meeting the requirements for successful completion of the game. On a macro-level, the uproar following the *GTA* 'Hot Coffee' mod and the uproar surrounding *Super Columbine Massacre RPG* exposes the sociopolitical tensions underlying a simple aesthetic recombination within software architecture.

To answer the second part of our question – what does this say about us? – popularization of the medialect of video games indicates a structural transformation in the ways that people are able to express themselves. The aesthetic vocabulary of video games incorporates detachment, playfulness and fluidity vis-à-vis the hegemonic rigidity of traditional modes of expression. To paraphrase Crary (1992, p. 22) once more, this transition entails 'a radically different visual language that cannot be submitted to the same methods of analysis, that cannot be made to speak in the same ways'.

The examples are many. The emergence of the 'Machinima' phenomenon – the use of software architecture of video games in creating short cinematographic narratives – suggests that 'audiences' have started to manipulate (elements from) their media environments. This is not a purely aesthetic exercise, but through modification and emulation game mechanics facilitate the manifestation of latent sociopolitical realities. The quintessential example is the mod that became a game of its own: *Counter-Strike* (2000). Cheats, glitches and emulation allow radical alterations of the experience that the creators initially may have intended. Fans of *C&C: Generals* (2005) have created a multitude of additional maps, missions and mods that are situated in the context of the current war in Iraq (Command & Conquer DEN, n.d.). Taking this to its logical conclusion, the recent phenomenon of 'counter-gaming', such as *Velvet-Strike*³, is at its most benign the outcome of a healthy process of explorative curiosity, and at its most political a reclamation of space and the meanings that exist within it. Similarly, 'it takes a game like *Special Force* [a first-person shooter (FPS) based on the armed Islamic movement in South Lebanon], with all of Hezbollah's terror in the background, to see the stark, gruesome reality of *America's Army* [an FPS describing the experience of a soldier in the US Army] in the foreground' (Galloway, 2004).

Video games represent a vocabulary that (re)introduces a degree of playfulness into the process of communicative exchange, thereby facilitating a greater variety of different 'readings' and the manifestation of individual (cultural) expression. Without a doubt its medialect will be eclipsed by a new vocabulary in due time. But today this phenomenon invites us to explore the boundaries and foundational properties of traditional communicative exchange. Who carries the responsibility for gender/race neutrality in a video game? Can we justifiably extend existing copyright into game space? These types of questions speak to the organization of society at large. It is up to all of us to answer them.

Notes

1. 'My desire is aimed for where I fire/target at' (cited by Virilio, 1989, p. 14–15).
2. <<http://www.jfkreloaded.com/instructions/>>.
3. '*Velvet-Strike* is a collection of [anti-war] spray paints to use as graffiti on the walls, ceiling and floor of the popular network shooter terrorism game *Counter-Strike*.' For more information, see Schleiner (2002).

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