

The Landscape Aesthetics of Computer Games

Landscape aesthetics drawing on philosophy and psychology allow us to understand computer games from a new angle. The landscapes of computer games can be understood as environments or images. This difference creates two options: 1. We experience environments or images, or 2. We experience landscape simultaneously as both. Psychologically, the first option can be backed up by a Vygotskian framework (this option highlights certain non-mainstream subject positions), the second by a Piagetian (highlighting cognitive mapping of game worlds).

In the late 1920s, René Magritte famously wrote “Ceci n’est past une pipe” on a painting of a pipe. With “This is not a pipe” we know that there might be a real pipe somewhere which the representation, strictly speaking, is not. What happens if we write “This is not a landscape” on a WORLD OF WARCRAFT (2004) screenshot? In other words, can the landscape and its representation be disentangled? No, says historian of philosophy Edward S. Casey: “The truth is that representation is *not a contingent matter*, something merely secondary; *it is integral to the perception of landscape itself – indeed part of its being and essential to its manifestation*” (Casey 1997:XV).

Perhaps that complex, integral relationship between the landscape and its image is all in the philosopher’s head. Perhaps the problem has its roots in the ambiguity of the English word *landscape* (or the German *Landschaft*, or the Danish *landscab* etc.). Perhaps we ought to replace that awkward word with two, distinct words: *environment* and *image*. After this language reform, you could either be said to experience an environment affording certain actions or to experience an image akin to those known from landscape painting, i.e., an object of contemplation.

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Which approach will enrich our understanding of the avatar-navigated, 3D worlds of computer games the most? – 1. We experience landscape as environment or image, according to our mode of experience, or 2. We always experience landscape simultaneously as environment and image (Casey's suggestion). I will start out by considering the first option.

The Landscape as Environment

Landscape aesthetic Steven C. Bourassa tackles the *image vs. environment* problem by enrolling the combatants in a much larger fight, namely, that of *nature vs. nurture*, or *biology vs. culture*. Eventually, Bourassa lets nature win. His case for nature goes somewhat like this: Since our preferences for certain environments can ultimately be explained with reference to their potential for survival, landscape is simply another word for environment. The ways in which humans react to such environments, favorably or otherwise, can be understood through the lens of biological evolution. If we, for example, find a landscape pleasing, this positive reaction can be explained by that landscape's relatively high potential for survival.

Bourassa finds support for this nature over nurture position in the aesthetics of philosopher John Dewey. Dewey held the idea that aesthetic experience is an "intensification and enhancement of everyday experience" (Bourassa 1991:XV), a view held in explicit opposition to Kantian aesthetics. Since Dewey thought of the aesthetic experience as an intensified continuation of everyday experience, Kant's notion that the aesthetic experience is an addition to normal, everyday experience, and an exclusively human addition at that, struck Dewey as an "ironic perversity" (cit. by Bourassa 1991:37). Bourassa consequently labels Kant's aesthetics "detached" as opposed to Dewey's "aesthetics of engagement", or "aesthetics of everyday experience" (Bourassa 1991:XIV, XV).

It appears quite promising to conceptualize the landscapes of many popular computer games as environments in the above Darwinian sense. Take *WORLD OF WARCRAFT*, where you kill to get ahead in the game, and try not getting killed too much in the process. Improving your chances of survival by knowing the environment is not only a question of your evolutionary past influencing landscape perception, it goes on in a quite literal sense as well.

Conceptualizing the landscape as image, on the other hand, would seem to be taking Kant's side, the side of nurture, opting for aesthetics of detachment. Such aesthetics surely have explanatory power, too. Not only if you introspect your personal experience with computer games, but also if you consider the thousands of screenshots uploaded to the Internet. Popular photo sharing sites such as Photobucket or Flickr, or specialized sites such as Koinup; reveal an abundance of images, many of which depict nothing but landscape itself. The making and publishing of such images, also by users of hack 'n' slash fantasy worlds, suggests that gamers are not at all insensitive to landscape as image.

Bourassa proposes that landscape experience has three, aesthetic modes: biological, cultural, and personal. These modes correspond to the three developmental processes described in Russian psychologist Lev Vygotsky's theory of development: *phylogenesis* (biological evolution), *sociogenesis* (cultural history), and *ontogenesis* (individual development).

Process of Development	Mode of Aesthetic Experience
Phylogenesis (biological evolution)	Biological
Sociogenesis (cultural history)	Cultural
Ontogenesis (personal development)	Personal

*Fig. 1: Bourassa's Vygotskian Paradigm for Landscape Aesthetics
(based on Bourassa 1991)*

As the table suggests, Bourassa sets the landscape-as-environment as the natural, or biological, *basis* for the aesthetic experience of landscape. The landscape-as-image is, however, allowed certain, distinct functions on the cultural and personal levels. As it turns out, this modal approach to landscape aesthetics is congruent with current ludology, something I will explore in the next section. Here it should be added that Bourassa stresses the social dimension very strongly (as a direct consequence of Vygotsky's cultural-historical position). Landscape in the cultural mode is thus described by Bourassa as a "form through which cultural groups seek to create and preserve their identity" and the ways in which "one's experience of a place is imbued with [...] social significance" (Bourassa 1991:101). When it comes to the personal mode, Bourassa focuses on its potential for cultural change. Through "transcendent behavior" the creative individual might create new "perceptual strategies" (Bourassa 1991:110), thereby changing the way in which not only the individual him- or herself perceives a landscape, but eventually how entire social groups perceive the landscape. This might happen, for example, when a creative individual describes mountain scenery in poetry or in landscape painting, thereby influencing the general perception of mountains.

Image and Environment in a Ludological Perspective

According to influential ludologist Jesper Juul, computer games are "half-real" because components of the gaming experience such as goals, challenges, and the event of winning are real; while the game world is fictional. The player will tend to focus either on the rules or the fiction, with "rules and fiction [competing] for the player's attention" (Juul 2005:121). Fiction might help the player to understand the game, but when fiction has done its duty, fiction fades into the background of the player's consciousness. Therefore, argues Juul, experienced players will tend to dismiss the fictional world of the game, while inexperienced players will tend to focus on it.

When seen from the ludologists' perspective, the landscapes of computer games play a role similar to that of fiction. When a player enters a new area of the game world, e.g., WORLD OF WARCRAFT'S Stranglethorn Vale, the player tends to focus on the landscape-as-image, or, in Bourassa's Vygotskian terms, to experience landscape in the cultural mode. In a manner similar to how fiction cues the understanding of goals, the landscape-as-image helps the player develop a general sense of the world's content and its distribution; in the Stranglethorn Vale example, images of exotic beaches and jungle ruins are suggestive of pirates, voodoo, head-hunters, etc. Additionally, the landscape images hint at a certain distribution of this suggested content, i.e., jungle images suggesting a tight and unpredictable distribution as opposed to the sparseness and regularity suggested by a desert image. When the landscape-image has thus fulfilled its purpose it dutifully fades to the back of the player's attention, and the player switches from the cultural to the biological mode of landscape experience. The landscape is now understood as an environment with certain action and survival potentials.

If we enter these ludological considerations into Bourassa's framework, we end up with the following table.

Mode of Aesthetic Experience	Landscape Experience	Landscape Function	Gaming Mode
Biological	Environment		Experienced player's
Cultural	Image	Cues player to understand options	Beginner's
Personal	Voluntary (environment or image)		Personal

Fig. 2: Vygotskian Landscape Aesthetics Meets Ludology

As regards the possibility of landscape experience in the personal mode, Juul's mention of certain gaming practices can further the discussion. Juul uses the practice of QUAKE (1996) players to illustrate his point about how the fictional world fades away in the gaming experience. In an attempt to sharpen their perception of the basic, spatial layout of the game, these players alter the graphics settings of the game to tune out irrelevant information such as surface textures. This implies that to the experienced player, the real gamer, landscape is essentially an environment; accordingly, preoccupation with the landscape as image is typical of a beginner.

It should be noted, however, that the findings Juul refer to as findings on "Quake players" in general, are pre-experimental information from a psychological study on presence done by Xavier Retaux. He recruited his test subjects from an Internet forum that "brings together the best French players" and carried out experiments with a group of players which included several with "a lot of knowledge of the virtual world" (Retaux 2003:295, 300). By focusing on such expert players, Juul is in a sense trying to reveal the essence of *bikeness* by studying Tour de France winners, instead of studying the average bicycle rider. Since we cannot necessarily extrapolate from expert players to players in general, the case of Retaux's QUAKE players should, in other words, not be used to explain the experience of gaming in general. The behavior of Retaux's expert players is, nevertheless, very illustrative from the viewpoint of landscape aesthetics, since the players exhibit the transcendent behavior typical of landscape experience in the personal mode. These expert QUAKE players thus pursue a certain, perceptual strategy, namely, to focus on the spatial layout of the landscape (the landscape as environment), and they are able to explicate and communicate this strategy.

While the practice of adjusting graphics settings is suggestive of one, distinct personal mode of landscape experience, the practice of making landscape screenshots signifies another. Again, a perceptual

strategy, namely, to enjoy the view (the landscape as image) is pursued, explicated, and communicated, cf. the sharing of screenshots and all the commentary accompanying it. Whereas the ludological argument concerning the landscape as image went like this: “You use the image to understand your options better, then forget about the image and focus on the action (if you don’t, you’re not a real gamer!)”; the argument for landscape connoisseurship as a personal mode of gaming would go quite differently: “In order to enjoy the landscape as image, you have to master the game, i.e., learn how to survive, i.e., *overcome* the landscape as environment.” All in all, exactly the opposite of what a ludologist would consider the normal way of relating to a game. The means, perversely, become a goal in itself. You might say that through effort, the experience of any aesthetic object can be twisted away from what must be considered normal, and that the position of landscape connoisseurship is a strange, non-gamer position. Nevertheless, understanding non-mainstream subject positions; or if you will, personal and optional modes of experience, helps us paint a fuller picture of how people engage with computer games.

Landscape as Organization

Now we move onto another kind of landscape aesthetics, in which landscape is not experienced as *either* environment *or* image, but simultaneously as both. Bourassa’s paradigm for landscape aesthetics is based on Vygotsky’s theory of development. There is a certain logic, then, to imitating Bourassa’s method but replace Vygotsky with another great psychologist who is, in a sense, his opposite: Jean Piaget. This replacement warrants a lengthy exposition but a few, well-chosen words by Anastasia Tryphon and Jacques Vonèche will have to do: “[Piaget and Vygotsky] share actions as the starting block for further development. But they understand it differently. For Piaget, action is a natural event taking place in a natural environment. For Vygotsky it is a rich and meaningful human act constructed by his-

tory and society. The Kantian nature of Piaget's investigations contrasts with the cultural-historical approach of Vygotsky's researches" (Tryphon/Vonèche 1996:9).

This makes it possible to extrapolate the Dewey-Kant dichotomy observed by Bourassa (*engaged vs. detached* aesthetics) to Vygotsky-Piaget. Piaget's attitude can be called Kantian because he understands human action to play out in accord with structures which are not, at least not essentially, determined by culture and history. In contrast, this is exactly how Vygotsky would describe things, implying a certain affinity between Vygotsky and Dewey which Bourassa explored in the above.

Moving swiftly on, Piaget and Bärbel Inhelder (1967) have presented a most influential theory of spatial conception. According to this theory, an adult human can conceive of a given space as topological, projective, or metric space. These differing conceptions of space signify stages in the individual's development, but in Piaget's genetic-structuralist view, the previously reached, developmental phases are not wiped out when a more advanced phase is reached. Structural elements of the earlier phases might be recycled, so to speak, on the higher levels, and the experiences of earlier phases are, to some extent, available to the adult as distinct, experiential modes (Golledge/Stimson 1997). Topological space is space experienced almost entirely through direct perception, with very little help from imagination. Projective space is based on the co-ordination of several points of view, some perceived directly, others imagined. Metric space is space conceived of when direct perception is utterly insufficient, and a kind of internal representation is required. From the 1960s onward, the study of the latter kind of spatial experience has been conducted under the headline of cognitive, or mental, mapping (e.g. Downs/Stea 1973, Portugali 1996).

In Piagetian terminology, we could say that the experience of landscape involves the mix of perception and imagination with a high

ratio of imagination. Places are spatial wholes, and a landscape is the organization emerging when a number of such wholes are coordinated at a higher, mental level. Or as Casey, the phenomenologist philosopher puts it: “Places I take to be the constituent units of every landscape, its main modules, its prime numbers” (Casey 2002:XV).

Piegetian Level of Space Experience	World Experience	Mental Processes
Topological space	Environment	Perception
Projective space	Place (unit)	⋮
Metric space	Landscape (organization of units)	Imagination (cognitive mapping)

Fig. 3: A Piegetian Framework for Landscape Aesthetics

In a Piegetian framework for landscape aesthetics, the landscape as environment and the landscape as image become less important. Landscape as organization comes to the fore; landscape becomes the lay of the land. At this point it becomes time to leave behind the strict Dewey-Kant dichotomy which structured Bourassa’s thoughts on landscape. As it turns out, the notion of landscape-as-organization is in accordance with Bourassa’s hero, Dewey:

[As an organism increases in complexity,] [s]pace thus becomes something more than a void in which to roam about, dotted here and there with dangerous things, and things that satisfy the appetite. It becomes a comprehensive and enclosed scene within which are ordered the multiplicity of doings and undergoings in which man engages (Dewey 1934:23).

Landscape-as-environment cannot be described much better than as a pure survivalist “void in which to roam about” with “dangerous things and things that satisfy the appetite”, but Dewey insists: human life goes on in a space which is more than such a void. We

could call such a space a *landscape*. This is echoed in the words of psychologists Rachel and Stephen Kaplan; note that as space is terminologically upgraded from void to landscape, the things in it are upgraded from “things” to “components”: “A landscape is more than the enumeration of the things in the scene. A landscape also entails an organization of these components” (Kaplan/Kaplan 1989:10).

Having the world fall into place as landscape, sensing the connections between the components that make up the landscape, is a pleasurable experience. This process of understanding does not, however, entail a conclusion, i.e., a final and fixed world-map. The Kaplans thus underscore how a sense of “organizational patterns”, and a “higher-level sense of connectedness” (Kaplan/Kaplan 1989:10, 190), rather than a totalizing worldview, is what makes one feel comfortably oriented in the world. To put it less poetically, the pleasure of landscape-as-organization stems from cognitive mapping, rather than from cognitive maps.

As regards the cognitive mapping of computer game landscapes, space only permits a few, brief remarks. No matter how photo-realistic computer games might become, they will, in a foreseeable future, still be screen-based, thus offering a very limited field of view compared to that which humans experience in real life (which is almost 180 degree). This does not bar us from the cognitive mapping of computer game worlds, but the mapping takes place under very different conditions. At this point it should be noted that cognitive mapping is generally understood to take place “by means of visual, as well as non-visual, modes of sensation and information: text; auditory, haptic, and olfactory means for example” (Portugali 1996:1).

As an example, my cognitive map of Berlin is built up by walking the streets of Berlin, but also from cartographic maps, guide books, etc. To compare with a computer game city, my internal mapping of WORLD OF WARCRAFT’S Orgrimmar takes place as if I am mapping Berlin with a heavily reduced field of view, no peripheral vision,

and without the benefit of most of the cues triggering depth perception. In that situation, my reliance on sources such as text and cartographic maps is increased; sources which happen to be ready at hand via the Internet. Because of this difference in constitutive parts, my landscape-as-organization of Orgrimmar might be different from my landscape-as-organization of Berlin – it might be more textual, more dependent on the contributions of others, more diverse in its sources – but that is exactly the point of aesthetic experience, also of landscapes: to be offered something artificial which plays with, challenges, and on the whole makes good use of our ways of experiencing the world. Whether landscape is conceptualized as environment, image, or organization, the computer game is a fine, new medium for it.

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