The Vestibular in Film: Orientation and Balance in Gus Van Sant’s Cinema of Walking

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Erratum
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The Vestibular in Film: Orientation and Balance in Gus Van Sant’s Cinema of Walking

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Abstract

For decades, the audiovisual nature of the film medium has limited film scholarship to the strict consideration of sound and sight as the senses at play. Aware of the limitations of this sense-to-sense correspondence, Laura U. Marks¹ has been the first to consistently give expression to a new and emergent line of enquiry that seeks to understand the multisensory nature of film.²

Adding to the emergent awareness of the cinema of the senses, neuroscience, specifically multisensory studies, has identified autonomous sensory systems beyond the classic five senses: the vestibular (orientation and balance), proprioception (posture and body position), pain, and temperature perception. This essay investigates the principles of the multisensory film experience when applied to our sense of orientation and balance in film – the vestibular in film. Here I seek to outline the neural and physiological evidence supporting the idea that we can have access to the multisensory exclusively through sound and image, based on the nature of our perception and cognition.

I then apply this frame of reference to a new understanding of Gus Van Sant’s cinema of walking composed by the so-called death trilogy of Gerry (2002), Elephant (2003) and Last Days (2005) plus Paranoid Park (2007). With this analysis I show how the vestibular sense can be a powerful aesthetic and cinematic mode of filmmaking, as well revealing of the sensuous nature of film.

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Introduction

“To be oriented in the relevant sense is not just to be here or there, in front of, behind, or to the right or left of something, but to be guided by ‘the thread of the world.’”

“Known as the balance organs of the inner ear, the vestibular system constitutes our sixth sense. [...] Even when we remain motionless, the otolith organs sense the pull of gravity (a form of linear acceleration). The signals from the semicircular canals and the otolith organs are complementary; their combined activation is necessary to explore and comprehend the enormous range of physical motions experienced in everyday life.”

“We want to keep the interest in the plastic world and want to be aware of the depth in which the persons move, but our direct object of perception must be without the depth. That idea of space which forces on us most strongly the idea of heaviness, solidity and substantiality must be replaced by the light flitting immateriality.”

These three quotations above contain the fundamental principles of the vestibular in film: its phenomenology, its physiology and its cinematic specificity. In what concerns the first principle, Merleau-Ponty’s phenomenology was driven by the double meaning of the word sense in French – meaning and direction. Therefore, body movement is not empty of meaning nor separated from “the thread of the world”, it is not a mere locomotive manifestation. In Gus Van Sant’s (GVS) four films, orientation and balance interact with “the thread of the world” to create meanings that are significantly marked by the relationship of a camera with the bodies we see on the screen.

Moving on to the second principle, neuroscience, on the other hand, tells us that the vestibular is not a metaphor nor the result of imagination, but part of our physiology – it has physical organs that give it a material existence – and it has the full range of elements associated with a sense, and not only as a neural function – it has receptors (the inner ear, the eyes and the limbs), it has a nervous pathway that connects the periphery with the central nervous system, and specific brain areas attributed to its processing. Where Merleau-Ponty sees the phenomenology of the vestibular, neuroscience shows its physiological substance.

Finally, Hugo Münsterberg formulates the question using the cinema to link up both ideas from above, and refers to the film experience as made of the specificity of the film medium as an extension of “the thread of the world”, where all moves with “light flitting immateriality”.


The vestibular in film impacts lines of thought as diverse as phenomenology, neuroscience, and film studies, but before engaging in a "vestibular" approach we must answer a fundamental question: How can film – in its audiovisual display forms – give access to a multisensory film experience and create a new ontology of the senses?

The first element to address is the somatosensory quality of sound waves, which are received both by our auditory and haptic senses. Sound affects our temperature and galvanic skin responses as a result of its somatosensory qualities, and helps us to perceive spatial information (close your eyes and you will still be aware of the size and position of the room you are in). Surprisingly, we can also perceive the weight of an object falling in another room by the sound of its fall, and we know that weight perception is a typically a function of the mechano-receptors on our skin. Conceptualizing sound as an exclusively auditory phenomenon ignores its multisensory nature.

The second part of the answer is that we are capable of perceiving textures through sound and image, which also replace touch in the haptic recognition of objects (size and form). This is fundamental to providing a salient experience if we consider that the haptic helps us to map space; biases our memory and emotions; provides sensations of temperature, weight, pain, and body position; and is “an active modality in which the perceiver seeks information from the world, by exploratory movements.”

Finally, let me mention the management of energy involved in perception, and how multisensory processing optimizes the energy resources. There are high energetic costs involved in perception, but we are in permanent and hard-wired expectation of experience - we need to reap the benefits from perception for the lowest possible energy cost. Film offers us sensory experiences that are both ecologically rewarding and beneficial, which we use in tuning perception. This is because perception is not a static mechanism but one in permanent dynamic development, adapting to the sensory contexts around us in constant flux. Therefore, one of the benefits of the audiovisual film medium is to align the rhythmic nature of our perception with “the thread of the world” and to place us in a time window that offers motor action without fatigue, danger without damage, and mood alignment without self-judgment, because “our brain does not develop one sensory modality at a time, we do not experience the world as parallel sensory streams but in a multisensory percept dynamically evolving over time” (Luo et al., 2007). At the base of the multisensory lies precisely the principle of optimization, where sensory information is combined to save energetic costs and to produce the best possible perceptual outcomes.

These arguments explain why technological introductions in cinema have always fallen on the realm of cinema as an audiovisual medium, and not towards a multisensory medium. Changes such as the advent of sound, color, and 3-D were absorbed, whereas haptic,
olfactory and gustatory devices have not really succeeded - except as residual and experimental forms of exhibition. I am therefore addressing the vestibular in film within the frame of reference of a multisensory film experience as derived from the audiovisual film-medium, and assuming that the multisensory can be experienced through an audiovisual film medium.

Vestibular – The Sense of Orientation and Balance

It is interesting to think of the origin of the word vestibular as the sense of orientation and balance,. From the Latin vestibulum (the entrance to the atrium of a Roman villa), the vestibular owes its name both the labyrinthine form of the inner ear and to the directional function it plays. Orientation and balance frequently go unnoticed, yet they are not only vital but also highly dependent on a complex flow of sensory information. The vestibular is, by definition, multisensory, since it combines information from the eyes, the ears and the limbs.

At a first glance, we may not see the direct relationship between orientation and balance activities and the generation of meaning deriving from that relationship. However, if we go back to Merleau-Ponty’s conception of meaning in the intersection of body movement and “the thread of the world”, it is easy to begin to see at least an ecological meaning between our physiology and activities based on survival goals: we need to walk, to eat, to talk, in a certain fashion. Of course, there can be other meanings and kinds of relationships. In film, the “vestibular” meanings find representation both in the narrative as well as in GVS’s mode of filming, and show how film aesthetics becomes a direct result of a dynamic relationship between the camera and the effect of orientation and balance. It is not a matter of recording the contents that convey a vestibular sensation, but in fact of creating a meaningful relationship between the continuous interactions of the camera with the bodies.

It is legitimate, however, to raise skepticism regarding the experience of orientation and balance in a film: does the (relative) stillness of the spectator stop him/her from bodily engagement with the film watching experience? There are two main reasons why the spectator can engage bodily in a film despite the stillness of sitting on a chair.

Firstly, Rizzolati et al. have found the mirror neuron system (MNS) – a neural mechanism of imitating the movements of others. The MNS is the measured capacity of our neurons to fire in the presence of an external action performed by a subject on the basis of motivational goals. This has been of vital importance to cognitive film scholarship, especially to the study of emotions in film. Though we cannot generalize that all films engage the spectator
emotionally and motivationally, it is nevertheless a characteristic of the narrative film tradition, and therefore highly demonstrative that we simulate film not only through imagination, but through a direct connection between the spectator and the film.

Secondly there is our ecological need to interact with others and with the events taking place in our physical surroundings. In this case it is not through imitation, but through interaction, and it involves unpredictable responses. Though it is true that we can, to some extent, use our cognition to unwire the experience of a film (by using belief/disbelief mechanisms, for instance), and switch to a mere intellectual (high order) experience, there are, however, limits to how much control we can exert over the low level sensory experience offered by a film. Those limits derive mostly from hardwired biological mechanisms that we cannot modulate – such as breathing, blood circulation, and other gut mechanisms. The vestibular in film is the part of our sensory experience located in the realm of our biology, at a low level of sensory processing. Despite all this, Merleau-Ponty has shown that even a function such as locomotion is not a mechanist function of our bodies, but a meaning generator, that links the body to the mind and the self to the outside. These are the two main reasons why I infer that remaining still in a chair does not diminish our capacity to engage with a film in an embodied, and particularly vestibular, fashion. In a nutshell, the vestibular sense can help us understand the generation of meaning derived from the embodied relationship between the spectator and the film, between the mind and body, and between the self and the outside world.

Vestibular – A Multisensory Modality

Though perception and cognition broadly rely on sensory input from different sources and modalities, the vestibular is a sense particularly adept at combining multisensory information, which is why it can serve as a core topic to understand both the creation of meaning in film through orientation and balance and the multisensory nature of the film experience. The vestibular incorporates two of the principles that lie at the heart of multisensory integration – the principle of maximum likelihood estimation (MLE) and the principle of inverse effectiveness. MLE informs us that:

“The integration of different sensory modalities occurs at various nodes in the human brain [...]. This process is thought to be important to merge multiple, often redundant, sources of information into a common representation about the outside world. It has been studied across a broad range of behaviors, and can be modeled assuming optimality, i.e., maximum likelihood estimation (MLE): different signal sources are weighted by the inverse of their variance, greater weight being given to the more reliable source [...].”

Whereas the principle of inverse effectiveness states that:

“[…], in multisensory integration […] as the responsiveness to individual sensory stimuli decreases, the strength of multisensory integration increases.”

Let us add to these two principles another couple of ideas that together provide the frame of complexity involved in the experience of orientation and balance in film. These especially show how the perception of a film does not combine sound and image in a straightforward fashion, but in a complex one.

Our brain works as a highly complex network of neural processing – it is a networking brain. Though many areas and populations of neurons interact in order to process stimuli of different natures, there are centers that specialize in specific functions. One of those centers is the thalamus - a structure that “[…] conveys sensory input to the primary sensory areas of the cerebral cortex but is more than simply a relay. It acts as a gatekeeper for information to the cerebral cortex, preventing or enhancing the passage of specific information […]”

The thalamus sends and receives information, acting both as processor and relay, and connects the higher levels of the brain (cognition) with the peripheral nervous systems (low level perception), making it one of the main structures in the enabling of multisensory processing. The thalamus is relevant if we consider that it gives shape, physicality and localization to a core center of multisensory processing in the brain, but also that it reveals that the multisensory processing and integration is not a passive mechanism that combines sensory and cognitive information in a computational way, but in a non-linear way (further complicated by feedback and feed-forward phenomena).

The thalamus, therefore, tells us that (1) the multisensory processes are not a metaphor or abstract concept, but have a physical representation and function in the brain; and (2) the multisensory processes are the result of the interaction between low level perception and high order cognition – that they are the results of feedback (from the low level periphery to the high level centers of cognition) and feed-forward phenomena (from the high level centers of the brain to the low level periphery).

The second idea is materialized in another brain structure – the hippocampus. The hippocampus is a core structure for the multisensory processes. Low-level sensory information is sent to “[…] multimodal associational areas, which are heavily interconnected with the hippocampus”, which on its turn “[…] appear to be particularly important for two tasks: (1) the production of a unified percept and (2) the representation of the percept in memory.”
Together, the thalamus and the hippocampus actualize the two main ideas of the multisensory film experience: (1) the long distance and bidirectional communication between neurons and other cells; and (2) the perceptual and cognitive unification that underlies the cohesiveness of our experience of film. These two properties can be described as following:

(1) What distinguishes neurons from other cells is their capacity to send and receive information over long distances. That is what allows a texture perceived by our hands to travel from the peripheral system up to the high level structure of our brain. It is, analogously, what allow those same neurons to make our hand move away from a burning surface. This long distance communication is highly revealing for it shows a close relationship between cognition in high levels of the brain and perception in low levels of the peripheral nervous system. This means that, when we experience a film, the double mechanisms of feedback/feed-forward make our high level structures of cognition actively work in coordination with low-level systems of the periphery. This describes what I call *long distance and bi-directional communication*. This sheds some light on the biology behind Merleau-Ponty’s notion of meaning as deriving from the interaction between body movement and the outside world.

(2) The idea of unification addresses the classical binding problem of “How can we perceive objects as unitary entities when their individual features are processed separately in different populations of neurons in different regions of the brain?” The hippocampus can, perhaps, be a reductive attempt to find the physical evidence for this mechanism of unification. Far from being solved, there is, nevertheless, general agreement that the hippocampus is an active physiological structure in the binding of the senses. When applied to the film experience, the binding problem is of particular interest, as it relates to how the multiple mechanisms of perception and cognition are assembled together in the creation of unified experiences and meanings. As an example, it is widely recognized that dialogue in film is based on the ventriloquist mechanism, where sound and sight are combined as an illusory single percept. In similar terms, we could think of the vestibular as a case of combination between different sources of input giving access to a unified percept that is illusory in its synchronicity, because it combines sensory modalities that occur as separate events.

Another remarkable fact of the vestibular influence in our film experience is how it can determine what we see and hear in a film. It has been found that the vestibular processing can, on the basis of the optimal principles mentioned above, change “[...] either the eye position or the retinal location of the stimulus.” In other words, it can guide our attention to particular stimuli and determine what we hear and see, affecting how we should consider the phenomenology of film on the light of the physiology of the spectator.
The Vestibular as a Sense


Recently, the notion of sense has been receiving input from new findings from the direct observation of brain activity, notably in the combination of multiple sensory modalities. In thinking of a simplified account of sense, we can consider it as a gateway to the outside world through a specific perceptual and cognitive system. A sense, therefore, implies the existence of one or multiple receptors – such as the eyes, the ears, the nose, the tongue, the skin. It implies the existence of means – a nervous pathway – to conduct sensory information from the periphery to the brain – and a center where information is processed, roughly speaking.

This simple frame of reference begins to fray when we consider:

1) Senses do not work in a straightforward fashion – from the periphery to the center – but work instead in feed forward and feedback processes. The brain receives information from the receptors, but it also sends information to those receptors, which means that perception is not a passive mode of access to the outside world, but a dynamic mechanism.

2) One receptor can receive different kinds of sensory information. The skin, for instance, can receive changes in temperature (thermo-receptors), electrical energy (nociceptors), pressure and distortion (mechanoreceptors), and chemical stimuli (chemoreceptors). This information can be channeled for different senses, such as the gustatory experience of seeing food on the screen.

3) The multisensory and networking nature of our brain powerfully defies this linear conceptualization. Throughout the 1900s, neuroscientists tried to identify and organize the brain into rigid and perfectly defined regions of sensory processing – sight is processed in the back of the head, sound in the temporal gyrus, and so on. With the development of brain imagining technology in the early 1990s (EEG, fMRI), however, it became obvious that not only are the regions not as rigid and specialized as we thought they would be, but there are neurons that process sensory information from different sources and types - neurons from
the auditory system, for instance, can process up to three different kinds of sensory information – and neural populations that interact with other modalities. Sight may, for instance, influence hearing, and vice versa, depending on the nature of the sensory contexts.

This picture of complexity, still a relatively simplified account of the actual complexity, exists in the very core of defining sense. The direct observation of brain activity has made neuroscientists propose autonomous sensory systems beyond the classic five senses defined by philosophers. One of these “new” senses is the vestibular. The vestibular, as our sense of orientation and balance, has its main receptors located in the inner ears and in the eyes, though our limbs provide information as well, when we walk and our arms scan the way.¹⁶

The Vestibular in Film – Gus Van Sant, a Case Study

How are all these aspects of our physiology converted into a cinema of the senses? Orientation and balance can be found in different forms throughout the history of film – From Buster Keaton’s famous bike scene in Sherlock Jr (1924), to Michael Snow’s La Région Centrale (1971); from Alfred Hitchcock’s Vertigo (1958) to Vincenzo Natali’s Cube (1997); from Kent Mackenzie’s The Exiles (1961) to Albert Serra’s El Cant dels Ocells (2008); from the Dardennes’ Rosetta (1991) to Cristi Puiu’s The Death of Mr. Lazarescu (2005); from Alan Clark’s Elephant (1989) to Béla Tarr’s Werckmeister Harmonies (2000). Though in different degrees, these examples cover a wide range of the vestibular in film. Among various films and directors, Gus Van Sant’s Gerry (2002), Elephant (2003), Last Days (2005) and Paranoid Park (2007) stand out as a unique case of film aesthetics based on the experiential quality of the vestibular, with orientation and balance as the main fabric of its work.

These four films show a consistent use of the camera in relation to how bodies move and to their sense of orientation and balance. They represent an alternative to conventional narrative cinema without using the now conventional modes of narrative disruption, what Grodal refers to as the blocking of the flow.¹⁷ In this set of films, closely interconnected in theme (death) as well as in the walking experience they offer, GVS uses the vestibular sense as a powerful aesthetic and cinematic tool, achieving a result beyond the mere quality of experiential spectacle offered in some more mainstream cinema. These four films manage to unify form and content in a tremendously integrated and vital way. They do so through a direct relationship between the camera and the bodies in motion. Exploring that relationship is a goal in line with Laura Marks’ understanding of film as the intersection of filmmaking, as practice, and film theory, which has, in the past, been keenly materialized by the Soviet montage directors Sergei Eisenstein, Dziga Vertov, Vsevolod Pudovkin; by the French
impressionists Jean Epstein, Germaine Dulac, Louis Delluc; but also by the French New Wave directors Jean-Luc Godard, François Truffaut, and Claude Chabrol.

The table below shows how the vestibular was designed in these four films, where + signifies a strong use of balance or orientation and – signifies a weaker use of these two properties.

<table>
<thead>
<tr>
<th>Paranoid Park</th>
<th>Gerry</th>
<th>Last Days</th>
<th>Elephant</th>
</tr>
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<tbody>
<tr>
<td>Balance</td>
<td>1st part: + Orientation</td>
<td>+ Orientation/balance</td>
<td>Orientation – Balance</td>
</tr>
<tr>
<td>– Orientation</td>
<td>2nd part: + Balance</td>
<td></td>
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The Cinematic Time Window

The cinematic time window in these four films manages, simultaneously, to break the temporal conventions of storytelling – where scenes should be as short and efficient as possible – and yet remain outside the practice of disruptive modes of storytelling (an example of this disruption is long scenes and static shots with lack of action – the so called slow cinema). The intersection of these two film paradigms results from the experience of walking.

_Gerry_ is a film about two men, who both go by the name Gerry, who drive up to a vast field of an arid landscape to find what they call “the thing”. Shortly after they arrive, they realize they have lost the notion of their way back to the car. They then begin a long walk trying to find the way back. That walk is not only a matter of survival for the two men, but an opportunity for GVS to explore the cinematic aspect of walking, as well as the emotional dynamics taking place between the two men and the spectator. _Gerry_ is edited with long walk scenes that establish multiple points-of-view, reveal different emotional engagements, and use minimal dialogue to create an effect of long exposure and affect. In _Gerry_, scenes do not simply convey narrative information in the cause-effect way that we can find, for instance, in Hollywood storytelling. Duration, in this case, is meant to expose us, as spectators, to a long time window of film experience, allowing us to experience what it means to walk, what it feels like to walk, and the potential for a cinematic representation of walking. Walking surpasses a mechanical repetition of movement, a mere locomotive device, and becomes a coordinated dialogue between the mind and the body.

_Paranoid Park_ does not seem to have caused any impressive flow of critical discussion nor strong impact in the audience figures, and yet it is the one from these four films that gathers
most elements of interest to me. It is a film narrated by the main character Alex, a teenager who became trapped in a web of guilt over his responsibility for the accidental death of a security guard. This inner mental state shapes the structure and the tone of the film. *Paranoid Park* offers an interesting sequence and layering of scenes, which makes us perceive time as being circular and complex, conveying the very same image of being boggled in a thought. All is anchored in the sentiment of guilt, and the circularity and complexity create a sensation of dizziness similar to the perceptual loss of balance. The complexity of the sequence of events is achieved through the almost absence of markers that connect images and events. In my analysis of these films I have outlined the sequence of events in *Paranoid Park* and match them with the natural sequence of those same events. After comparing both layers, the sensation of circularity and complexity at a diegetic level becomes obvious. This effect creates a cognitive sensation of dizziness similar to what we have in the most physical and perceptual components of the film. Therefore it strikes me as another element that links up the low level and perceptual elements (loss of balance at a perceptual level) with high level and cognitive experience of a film (dizziness as a narrative device).

In the temporal structure, *Last Days* resembles *Gerry*, by making use of long duration scenes to explore the emotional dynamics of the main character Blake. Whereas *Elephant* resembles *Paranoid Park* in the use of circular and complex sequence of scenes, and it explores not so much the emotional but the mental layers at play. *Last Days* shows us the inner psychological struggle of Blake (explicitly re-enacting Nirvana’s lead singer Kurt Cobain) and his pathway to death. We begin to see Blake in an apparently fragile physical condition. I say “apparently” because he nevertheless goes out hiking and swimming in the wilderness as sort of catharsis that challenges the overwhelming power of nature. He then seems to be at the verge of losing his strength and collapsing into death, but he manages to find a last source of strength that he channels into the creation of music. The film is a beautiful cinematic re-creation of what we can imagine and romantically idealize as something similar to Cobain’s own life.

On a different note, *Elephant* is a multiple character narrative, with that multiplicity being reproduced at the level of time and layering. It goes back and forth in time, shifting from one character’s point-of-view to another, in order to create an experience of immersion in the killing that took place in the Columbine High School, in (Colorado). As with all these four films, death is the core theme of *Elephant* and we get to experience it differently accordingly to the way it is filmed and how the events and perspectives are put together. The editing plays an important role especially in *Elephant* and *Paranoid Park*, but it is minimal in *Gerry* and *Last Days*. However, the use of the camera is what I think is the main tool to bring together the different cinematic experiences of death and identity through walking (instead of, for instance, through dialogue or other kinds of body action). The
following is a summary of the different roles the camera can have in conveying an experience of walking, and an explanation of why I think GVS’s work constitutes a unique case of filmmaking and film style in cinema.

The Camera – A Living Entity

The camera in these films is not merely recording the action, nor is it following a formal or established visual practice in cinema. It has its own life and is in permanent interaction with the characters. For example, in Gerry (Figure 1, following page) the camera pulls the characters as a magnet, it waits for them. It plays and spins around the two men with the energy that they lack. It tells them they are making the wrong decision. It takes part in the relationship between the two men.

As an experience of balance, in Paranoid Park (Figure 2, p. 535), the camera engages with the details of body (the movements of the skaters) combined with a score that uses low and high pitched sounds, so we can experience the auditory effects of the loss of balance in a more salient way. The camera does not simply film balance, but it incarnates the perspective of the skaters and moves out in the paranoid park taking us on a skateboarding experience.

In Elephant, however, the camera collects inspiration from the same type of movement and behavior of a war video game. It is a very stable camera that we feel here and yet, at the same time, one experienced as mobile as our sight – it combines rigidity and wideness of movements. It does not resemble Paranoid Park’s camera, where its pure experience of balance makes the camera shaky and, at times, "sinks" to the level of the characters’ hands.

In Elephant (Figure 3, p. 536) the camera behaves with incredible stability, in a mixture of a mechanical movement with the smoothness of our VOR (vestibular ocular reflex). This "cold" mechanical behavior of the camera is in tune with the theme (namely the nature of the killing that takes place in the high school) where we see, at a distance, the young students losing their balance as they are shot, and yet the camera remains stable.

The filming of walking in Elephant reveals a world-hood full of stability and flatness, contrary to Gerry and Paranoid Park’s bumpy, more natural, world-hood. In Elephant the camera almost floats around, weightless, with "light flitting immateriality", in Münsterberg’s words. This determines our perception of the characters walking, since it tells us they are walking in a world physically built by man (as opposed to nature in Gerry), a world that can have overwhelming control over us and where our options to choose directions are extremely limited. Immersed in that labyrinth, the characters walk as if they were zombies, as if the physical space shapes their gestures and there is a hand behind their backs pushing them while they walk, as if death was pre-determinedly and irreversibly
Figure 1. *Gerry*. DVD. Directed by Gus Van Sant. USA: My Cactus, 2002.
Figure 2. Paranoid Park. DVD. Directed by Gus Van Sant. USA: MK2 Productions, 2007.
about to happen in those walls. The atmosphere of oppression is not only the motive of the killing but also the way the camera interacts with the bodies to treat the main theme of death (a theme common to all the four films). The freedom of bodily movements we see in Paranoid Park’s teenagers is lost in Elephant’s teenagers. In other words, the sense of orientation and balance is not a mere perceptual element but a relationship between the main theme of the film in terms of form and content.

It is through these different “cameras” and their engagement with the bodies in motion that we find the vestibular in the use of GVS’s unique aesthetics and cinematic experience. Death, in Gerry, is an experience at a low level – we follow the physical elements of locomotion and walking. Death, in Last Days, connects the low level elements of the main character’s physical nature with his inner emotional and cognitive struggle. Death, in Paranoid Park, place us in a world-hood made of balance. Death, in Elephant, is overwhelming, cerebral, deterministic, and mechanical — an inescapable experience.

Identity and the vestibular

How can orientation and balance tell us something about the characters’ identity? Gerry is a clear exercise of identity explored through the vestibular sense. To start, both characters go by the name Gerry. However, it is through their walking activity that their identities will be at interplay and will be revealed. The camera mediates that relationship through a permanent motion, shifting from diagonal to lateral perspectives, from the back to the front. At points the two men become one single body. They appear as the two faces of the same subject. This does not only represent an innovation on the conventions of shot/reverse-shot, but an aesthetic device that gives a special focus on the eye movements of the characters, in permanent alertness to their ever changing, threatening, surroundings. If the two faces represent the double facets of a single identity, the visual splitting of the two refers to the dynamics of their emotional and psychological states.

Blake, the main character in Last Days (Figure 4, p. 539), is perhaps from among the four films the one whose identity is most thoroughly explored. Whereas Gerry is the journey of two nomads, Last Days is the journey of a sedentary man at the verge of physical and psychological collapse. Gerry is the overwhelming experience of man vs. nature, and Last Days is the struggle of a man inside the prison of his own mind. Blake’s struggle is shown through a vestibular experience. He is trying constantly to keep himself in motion and to overcome the challenges of the environment. The need to be in physical and emotional balance is at the forefront of his survival.
These four films represent the characters’ identities through their modes of walking – we have access to their spirit, mood, health, personality, state of mind (even their values), without the use of verbal language and facial expressions. By following these men walking from behind, we can draw a map of their traits, psychology, physical well-being, age, etc.

The spectators’ conception of character identity results from the combination between the vestibular as an experiential element and the story. In *Last Days*, we see Blake’s physical struggle to keep himself alive – he leans against walls and uses his hands for the sensory recognition of the space around him. The sense of familiarity between the spectator, the character, and the location is gradually learned through vestibular cues. This is when the vestibular becomes more than an experiential element and gains importance in the building of film aesthetics and story. At a purely perceptual level the vestibular is grounded in the plastic nature of our perception, namely our capacity to learn and form new brain connections. This is also the case with *Last Days*. Throughout the film we learn, together with the character, the right direction to take and how to explore reality – and we acquire empathy/sympathy toward Blake. This empathy does not come from a moral perspective (as frequently explored by cinema) communicated through the plot or from an emotional engagement, but derives from and is conveyed by the physical, vestibular, experience of his character.

The vestibular can indeed reveal to us something about identity. This is evident in the way the secondary characters walk in *Last Days*, taking as examples the yellowpages salesman and the two young missionaries. Through walking we see a sketch of the society’s prototypes, and this is achieved mainly through body language, through orientation and balance, through their modes of walking and their posture (this touches upon another aspect of film perception, namely, proprioception). These characters appear in intercut with Blake’s long agony, where the loss of balance creates a sensation of breakout and the imminence of death. The vestibular is essential to how the main theme is treated, through a long and agonizing loss of balance – as an ecologic element of survival.
Figure 4. Scene from Last Days.
(Last Days. DVD. Directed by Gus Van Sant. USA: HBO Films, 2005.)

Figure 5. Scene from Paranoid Park.
(Paranoid Park. DVD. Directed by Gus Van Sant. USA: MK2 Productions, 2007.)
One of the reasons why I believe the vestibular is of such importance to understanding the multisensory experience of film is because it simultaneously reveals a new perspective of independent cinema that we are more used to seeing in mainstream cinema - an experiential quality - and at the same time requires us to understand our own perceptual natures through the practice of filmmaking. As mere spectators we may or may not enjoy these four GVS’s films, but we all have to recognize that this camera is animated by a dynamic and hardwired interaction with the characters in a way that we do not often find in film. In other words, the camera is not simply making the visual recording of a script, but rather (inter)playing a
game. This is what is fascinating in the cinema of walking and especially the possibility it offers in the terms described by Laura Marks – of film as the intersection between thinking the ontology of cinema from a theoretical perspective and the practice of filmmaking.

In these four films the camera has a dynamic role in the building of points-of-view and character engagement. The lateral camera in *Gerry* place us as observers, and it is also a way to divert our attention from the pathway and to create the spatial disorientation that cuts us off from any spatial sense we might have. In some moments of the film, the camera adopts the place of a third walker and we get to walk along with the two men. But the potential of the camera does not end here. At times, the camera manages to convey a feeling of insecurity, of how easy it is to lose sight of the track, and we realize that not only the characters but the spectators as well are all losing sight of the track. In contrast to the camera in permanent motion, the use of a stationary camera gives a strong contrapuntual effect, as when it signals a spatial and temporal frontier, the moment of no possible return.

In all these four films, the camera examines closely the people, their physical well-being and health, and their emotional states. We hear their breaths – they are exhausted thirsty, and anxious (*Gerry*). “Where is the thing? How far is the thing?” The physical proximity of the camera also allows us to explore the sense of alertness through the characters’ gaze, which gives us a sense of danger coming from their surroundings. Their eyes wonder through multiple directions – is this the right trail? We experience the physical characteristics of their locomotion, but we also have access to their emotions through body movements - through their gaze direction and their facial expressions.

In *Gerry* and *Last Days*, the camera sometimes moves in circles around the characters. This is a contrast to the characteristic longitudinal movement of the camera, but also a contrast between walking, as the natural body state in these films, and sitting still, as the signaling of not knowing which direction to take. In one particular scene in *Last Days*, the camera in circles anchors our attention to Blake’s personality as something like vertigo. He is shown looking down – a gesture we recognized in *Gerry* – which is a gateway to cognitive engagement and access to the character’s memory. In this case, it represents an indefinite resolution from Blake. Similarly, in *Gerry*, the camera moving in circles signals the moment where an important resolution is being made, and a reaction to a major threat or danger. The camera moving in circles marks a contrast between walking as a natural body state and the life threat that the character is under.
Figure 8. Last Days. DVD. Directed by Gus Van Sant. USA: HBO Films, 2005.
In talking about the vestibular, we can easily think that orientation and balance have been present in film since the very beginning of cinema and are a constant in all films. Otherwise, how could we perceive a character walking without our sense of orientation and balance? Or what sense would it make that films (except experimental film that explores perceptual disruptive mechanisms) always showed characters with their heads oriented toward the upper side of the frame and their feet to the lower side of the frame, as if the screen contain the very same physical laws of gravity that we find in life? We assume that the film-worldhood is made of that same matter and obeys the same rules of our physical world. However, this is a film-convention that derives from the natural laws that we are used to. It is not a accident or simply non-sense. I believe it is another kind of evidence of how film style and film-aesthetics are connected to our sensory view of the world.

This is why I like to think of cinema in relation to the senses, though that does not mean we cannot benefit from the film experience at a more abstract and high order level, because we can. It simply means that the senses are a gateway, a bridge between us and the film, and one that is worth looking at, even if our purpose is to investigate thought or elements of culture. Thus, these four films are particularly interesting to me not because they “contain” vestibular cues (all films ultimately do), but because they explore extreme uses of orientation and balance, namely the loss of orientation and balance. Moreover, these are not just meant to cause physical responses, but they are directly connected with the main themes, with the stories and with the characters’ contents. This show that the low level aspect of the senses is directly connected with high-level elements, such as thought and cognition, and it does not make sense to think in terms of such a distinct separation between perception and cognition. Next, I will show details of the cinematic use of loss of orientation and balance in these GVS’s four films.

**Loss of Orientation**

In these four films, there are two main spatial devices used to take advantage of the loss of orientation: these are the landscape and the self-contained space. In *Gerry*, the spectator is often dropped into a visual frame of a location without any advantage over the characters. In other words, the visual information of a scene is at times intentionally ambiguous in terms of its scale and size, in order to make us lose orientation. In those cases we cannot accurately judge the scale without the characters in it, which creates a perceptual illusion of spatial disorientation. This also diminishes the effect that we are in control of the events and mere observers of the two men. It drops us on that same landscape, lost like Gerry.
The other device used for spatial disorientation is the self-contained space (as opposed to landscape and nature) that works as a network of directions, or a labyrinth. This is the case of the house in *Last Days* and of the high school in *Elephant*. In both, there is a sentiment of oppression, of imprisonment, where we do not see physical walls stopping the characters from escaping but an invisible barrier that does not allow them to escape. This is ultimately materialized through the circularity of space and time.

**Figure 9.** Scene from *Gerry* (2002).
(*Gerry*. DVD. Directed by Gus Van Sant. USA: My Cactus, 2002.)
However, the nature of these two labyrinths is not exactly the same. In *Last Days*, Blake walks around the house at the same time that he is on the verge of losing balance. His balance-oriented exploration of space is a vital function of survival, and informs us of his health condition, his identity and his struggle – it is an informative form of labyrinth, whereas in *Elephant* the constant walking through the high school offers very clear spatial markers that tell us *where* and *when* we are, and the camera pushes us, gradually and cerebrally, to the cruel, cold, and efficient killing that is going to take place – in that sense, it informs us not about an individual, but about a social reality.

**Loss of Balance**

*Paranoid Park* is one case where balance is not only a perceptual element but also the cinematic fabric of a film. The death scene of the guard is paradigmatic of this fact. It is an event built through the experiential loss of balance. This is why this film is on the extreme end of the spectrum shown by the table above that represents the vestibular experience in these four films from orientation to balance. *Elephant* is a very specific and salient experience of orientation, whereas *Paranoid Park* a unique experience of balance in film. The guard’s death scene in *Paranoid Park* is perhaps the most illustrative example of this point.

In this scene, the loss of balance starts to build up through sound and words. Alex hears his consciousness and his inner voice replying with an echo effect. Echo, as well as the low and high pitch sounds that we previously heard in the skating scenes, can be associated with sensations of dizziness and loss of correct orientation, because sounds can be used for spatial recognition and the echo removes the accuracy of that mechanism. The sequence then moves to the shower scene. This is a scene similar to that of Blake’s loss of balance. We are aware of the posture of the character as vertical, almost on the verge of losing his strength and balance, and contrasting with the horizontal and longitudinal experience of the rest of the film. This orientation functions as tool of continuity between fragments of the character’s emotions and memory. In the shower scene, the shifting from the horizontal to the vertical axis is particularly enhanced by a strident high pitched sound that rises gradually in intensity, and provides continuity with the present (from the shower) and Alex’s memories in the form of images with video quality.
Figure 10. Scenes from *Paranoid Park* (2007).

(*Paranoid Park*. DVD. Directed by Gus Van Sant. USA: MK2 Productions, 2007.)
Balance is particularly useful if we think of immersion in a world ruled by the laws of physics. The ice-skating scene portrays the group of kids as silly and superficial through their clumsy balance. The scene where Alex walks as the leaves fall off the trees at the sound of music in slow motion shows the longitudinal movement of walking in contrast to the vertical laws of nature – the gravitational forces. The scene where Alex’s friends chat about their girlfriends while they skateboard shows a non-conventional form of dialogue in film, guided by balance. The café scene where Alex and Macy eat ice cream is all shot with a hand held camera that mimics the loss of balance of the objects the characters are holding – as if the camera was another object together with the ice cream and the coffee (the camera has similar trajectories and moves at the same coordinates as the objects). In one of the final scenes Macy pushes Alex on his skateboard, combining (again) dialogue and perceptual elements of balance as the climax of the film and the revelation of love.

Conclusion

In conclusion, the vestibular – our sense of orientation and balance – shows how the multisensory is a category of the film experience and not of the film-medium. Moreover, it is at the core of understanding the cinema of the senses from an aesthetic perspective that goes beyond strictly formal aspects of cinema. The “extra” senses can in fact reveal new modes of a filmmaking based on a pragmatic relationship between the camera and the bodies in motion on the screen, according to a phenomenology of cinema.

GVS, in his cinema of walking, makes a unique and precise use of the vestibular as the fabric of his filmmaking, and therefore constitutes a strong case study of our perception of orientation and balance in film. This article seeks to introduce to the topic and invite new enquiries on the vestibular in film, as part of an exciting line of filmmaking that cuts across directors, filmographies, and periods of the history of film.

Filmography


