Eccentric Spaces and Filmic Traces:
Portals in Aperture Laboratories and New York City

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ABSTRACT

This paper examines the way in which time and space are figured within a new genre of what we are calling "eccentric games" and a site-specific video sharing application called *Trover* by Dan Provost. Taking Valve's *Portal* as our case study, a chiasmatic relationship emerges between these different modes of eccentric media. In order to access eccentric space the video games we examine appropriate the logic of film whereas Provost's video application *Trover* is informed by an eccentric logic of games.

Categories and Subject Description

General Terms

Documentation, Design, Experimentation, Theory

Keywords

Eccentric games, Trover, iPhone application, New York City, Portal, Valve, Aura, Index, Embodiment, Location

1. INTRODUCTION

The first section of this paper proposes a new genre of videogames called eccentric games. Eccentric games feature the manipulation of space and time as their main gameplay mechanic. This genre can be further characterized by a reliance on filmic interface as an apparatus for modeling eccentricity. Valve's videogame *Portal* (2007) is emblematic of this genre. The second section of the paper demonstrates how filmic technologies reflect and extend this trend in videogaming by analyzing Dan Provost's *Trover* (2009) application for Apple's iPhone. As the user moves through New York City, *Trover* plays videos which coincide with her geographic coordinates. These locative videos can only be accessed at the same site they were produced at and screened on the same surface they were filmed on, thus transforming the iPhone into a kind of "handheld portal device."

2. ECCENTRIC GAMES

2.1 Emerging Genre

The evolution of videogaming has been stubbornly dedicated to the progression of technical craft driven by the desire for realistic, immersive experiences. As Robert F. Nideffer writes:

> Improved lighting, increasingly accurate physics models, and more believable artificial intelligence (AI) are seen as the next frontier for game engines by many

in the industry. For anyone who attends meetings like the Game Developers Conference (GDC), the Electronic Entertainment Expo (E3), or SIGGRAPH, it quickly becomes apparent that these concerns are voiced almost exclusively from the desire to enhance the game world's realism [11], p. 215-16.

Within the last three years, amidst this industry-driven push towards realism, there has been a movement in gaming towards what we are calling eccentric games. Eccentric games employ spaciotemporal effects which give the player access to logics indigenous to digital environments. These logics often reference pop-physics theories and paradoxes such as those related to time travel, parallel realities, navigating multiple dimensions, folding time and space, quantum mechanics, probability engines, and the conflation of virtual and actual space (see Figure 1).
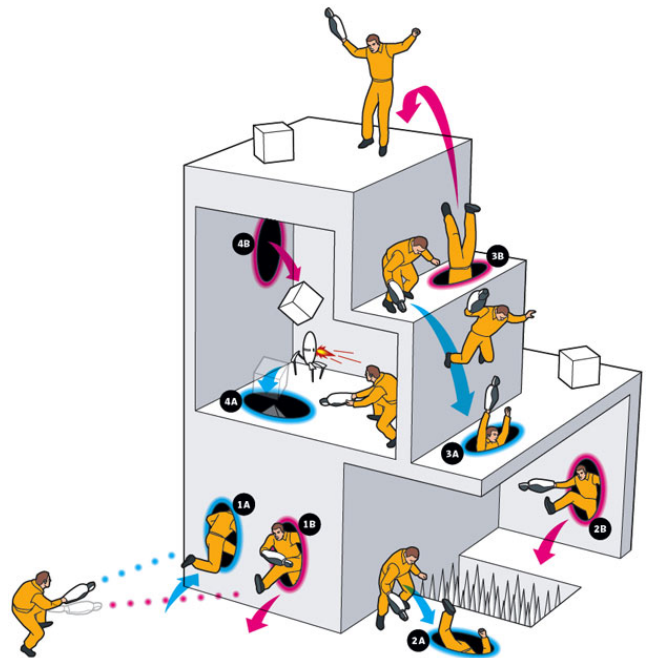

Figure 1. *Portal* diagram from *Wired Magazine* 10.15 (2007). Illustration by Jason Lee.

The current trend towards eccentric space games can be attributed to the maturing of certain gameplay styles, genres, and rhetorics combined with recent technical innovation that allow for more complex spaciotemporal manipulation on home computers and video game consoles. Much like the restrained naturalism of

Rennaissance perspectival rendering led to a more self-conscious and reflexive Mannerist period of visual art, so has the nascent discourse of videogaming begun to internalize and amplify its codes in such games as *Achron* (forthcoming), *Braid* (2008), *Cursor*10* (2008), *Echochrome* (2008), *levelHead* (2008), *Game-Space* (2008-09), and *Portal* (2007).[1]

In *Portal*, our primary example of the eccentric genre, the player manipulates space with the Aperture Science Handheld Portal Device or "portal gun" in order to navigate a series of puzzle rooms which organize the Aperture Science Computer Aided Enrichment Center. Computer aid comes in the form of spatial manipulation tutorials administered by the Genetic Lifeform and Disk Operating System, or GLaDOS, which, like a feminine version of HAL from *2001: A Space Odyssey*, makes each new lesson more deadly then the last.

2.2 Eccentric Sensation

Eccentric spaces, operating in games like *Portal* that promote play within a purely digital landscape, relate to what Mark Hansen refers to as the digital any-space-whatever (ASW). In *New Philosophy for New Media* (2004) Hansen discusses Robert Lazzarini's sculptural installation *skulls* (2000) and the way in which their anamorphic design fails to resolve into proper perspective no matter what angle the distorted objects are viewed from. As Hansen writes, *skulls* "'makes sense' visually—only within the weird logic and topology of the computer" [7], p. 202. Basing his theory of *skulls* off of Gilles Deleuze's cinematic any-space-whatever, Hansen suggests that *skulls* functions as a "digital ASW." Using Lazzarini's work as a metonymy for speaking about the ontological status of new media in general, he describes how the spatial regime of *skulls* is an impossible space for any human subjectivity to embody. Upon attempting access "you feel the space around you begin to ripple, to bubble, to infold…and you notice an odd tensing in your gut, as if your viscera were itself trying to adjust to this warped space" [7], p. 198-9. While a work like *skulls* emphasizes the failure of the viewer to grasp these forever skewed and uncanny objects, the eccentric games cited in this paper engineer the reverse response by attempting to make safe the digital ASW, acclimate the body to its effects, and provide the fantasy of mastery through the successful completion of goal-oriented tasks. As GLaDOS declares at the end of the *Portal*'s trailer-tutorial, "now you're thinking with portals." Perhaps "now you're feeling with portals" would be more appropriate.

2.3 Filmic Interface

Eccentric spaces are inapprehensible, but upon contact we feel the effects of the Digital ASW. To orient its audience these eccentric games use forms of popular media as metaphors for conceptualizing eccentricity. For example, there are many games which appropriate techniques common to both the production and presentation of cinema. Frequently reused tropes include control schemes like recording, playback, fast forward, rewind, and time compression/expansion as seen in *Braid*. More recently,

sophisticated methods of production have emerged in games such as nonlinear multi-track editing shared between multiple users as seen in *Achron*, in-game performances both staging and recording meta-gameplay as seen in *Cursor*10*, and the use of spatial folding to edit digital environments as seen in *Portal*. The fact that this "weird logic and topology of the computer" is heavily mediated by cinematic tropes returns to N. Katherine Hayles concept of skeuomorphic design. Borrowing the term from anthropology, Hayles writes that "a skeuomorph is a design feature that is no longer functional in itself but that refers back to a feature that was functional at an earlier time" [8], p. 17. These vestigial characteristics, according to Hayles, make the new technology safe and comprehensible because it is placed within a familiar framework. As Lev Manovich has argued, "cinema is now becoming *the* cultural interface, a toolbox for all cultural communication" and in the case of this recent trend toward eccentric gaming, the designers have conditioned our affective response to eccentric works specifically through the appropriation of cinematic devices [9], p. 86.

Figure 2. *Portal* screenshot illustrating real-time recursion.

2.4 Portal

Mediated through tutorialized presentation and filmic metaphors these eccentric games encourage a feeling of control and mastery over impossible logics and unnerving sensations. Out of the fifteen or so eccentric games released since 2007 and the many upcoming releases borrowing and building on eccentric mechanics, *Portal* stands out as an exemplar of the genre.

Portal, Valve Corporation's short yet successful single player game was developed for Windows PC and released on Steam, Valve's digital distribution platform. A departure from the rest of the Orange Box package with which it was released, *Portal* is not a fast paced action-shooter or a team-based online death match but rather an elegant puzzle game with eccentric tendencies. The point/click logic which made first-person shooters so successful and standardized the "floating gun" user interface as a gaming genre unto itself is redeployed in *Portal* as a filmic device. Rather than pointing then clicking to kill, the user clicks to produce portals which create recursive tunnels — effectively folding the level design upon itself (see Figure 2). *Portal* allows the user to cut, conflate, and collage game architecture as the main method of navigation.

2.5 Aperture vs. Apple

In contrast to the industrial-looking gravity gun, or Zero-Point Energy Field Manipulator, which allows players to interface with the Havok Physics Engine popularized in Valve's *Half-Life 2* (2004), the design of the portal gun, or Aperture Science Handheld Portal Device, references the recognizable design tropes of Apple's product line. Like the Nintendo Wii and DS or the iPod before it, the portal gun is white, rounded, glossy, and aesthetically minimal. Apple has redirected its marketing away from specific technological products to the brand itself as a cultural form and way of life. By deploying Apple's aesthetics, the portal gun invokes not only a particular formal design, but an entire corporate ideology. Aperture Science, the in-game company responsible for testing and developing the portal gun, is in direct competition with Black Mesa Research Facility, which produced the gravity gun from the *Half-Life* series of games. The narrative worlds of *Half-Life* and *Portal* are connected through this rivalry which manifests as subtle in-game advertising and propaganda reminiscent of the Mac vs. PC debates (see Figure 3).

The term "aperture" does not just signify a hole or portal, but it also refers to the part of a camera which opens and closes to regulate light levels. This gun that unfolds eccentric space is literally viewed through the lens of cinema. Instead of employing *Portal*'s first-person line of sight interface to shoot enemies directly, the player must weave game space by threading her line of sight through instantly generated loopholes. These loopholes also function as screens or mirrors used to refract the player character's line of sight as well as that of the robotic sentries and surveillance systems within the Aperture Science Enrichment Center. The portal gun shifts FPS gameplay from the direct interaction with objects and enemies towards the player character-cum-cinematographer and the architecture of the laboratory.

The Aperture Science Handheld Portal Device references both the photographic aperture as well as the glossy aesthetic sensibilities of Apple (see Figure 4). Dan Provost's iPhone application *Trover* (2009), a new filmmaking toolset for experiencing New York City, extends the eccentric logics of the digital ASW into inhabited physical space. Whereas the eccentric space games tutorialize through the metaphor of cinema, *Trover* is a looking glass, a portal into an expanding eccentric temporality.

Figure 4. Comparison between Apple's iPod and a physical mockup of Aperture Science's portal gun.

3. ECCENTRIC CINEMA

3.1 Walking the City

Imagine walking in the city. Perhaps heading towards a subway station down the block. While walking you receive a phone call and upon responding to the sound of the ring imagine receiving a video feed instead of audio. Looking down at the screen it seems as though this particular video depicts your own two feet shuffling on the pavement, but you seem to be wearing someone else's shoes. Imagine another call in which, after raising the screen to eyelevel, you spy a scene from a popular movie playing down the street, almost as if you are currently filming it with your outstretched hand. Imagine again that your phone rings only to become a lens for viewing the happening of a parade or political action or a fire, but you cannot feel the heat.

3.2 Handheld Portal Device

Dan Provost has designed an application for the iPhone called *Trover* in which videos are recorded and then uploaded to a database sorted by geographical coordinates. Using the city as a search engine, the iPhone alerts users when they are physically located in a space where a video was previously recorded. An application designed specifically for Apple's iPhone, *Trover* allows users not only to access videos on the same device with which they were originally created, but also from the same physical position of the original videographer. Thus, if positioned consciously, the iPhone transforms into a temporal window or
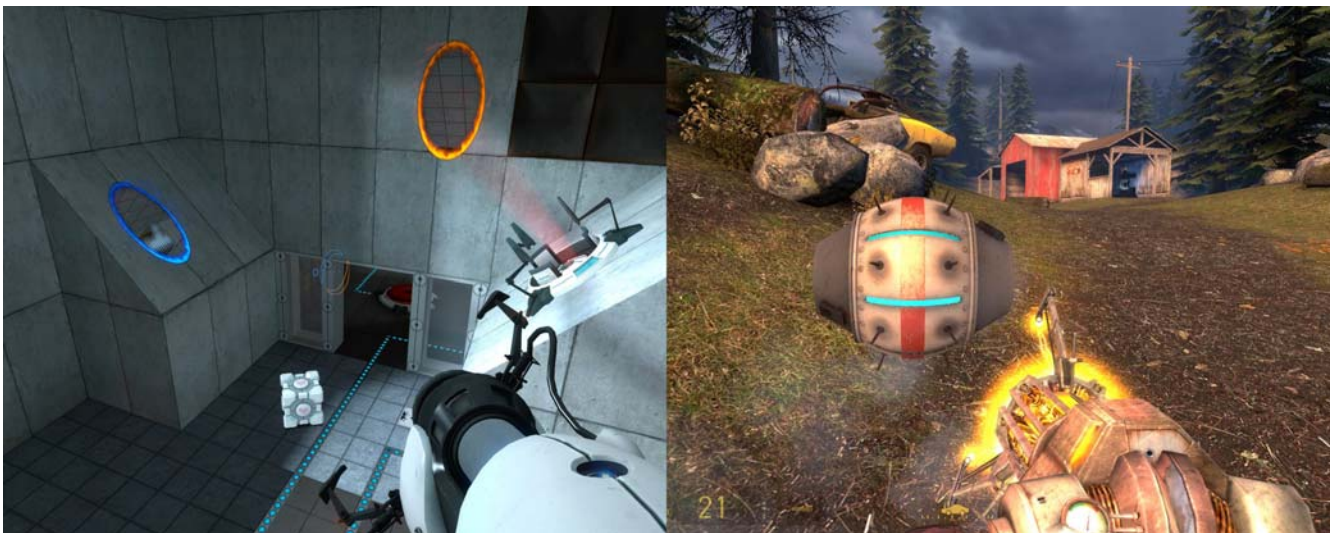
Figure 3. Screenshots from *Portal* and *Half-Life 2: Episode 2* (2007) depicting the portal gun and the gravity gun.

portal linking the viewer to multi-layered past and embedding the present with a feeling of historicized place. Instead of folding space as seen in the Aperture Science Handheld Portal Device, *Trover* folds time (see Figure 5).

Figure 5. *Trover* application running on the iPhone.

As much as the eccentric games we have examined borrow from film, Provost's iPhone application is informed by gaming aesthetics. Before beginning development of *Trover*, Provost created three alternate reality games (ARGs) entitled *Something Bad Happens* (2008), *The Arrival of a Train to the Station* (2008), and *A Glass Nation* (2008) which provide a contextual foundation for imagining *Trover* as a ludic interface. His ARG *Something Bad Happens* revolves around the uncovery of three short videos through code-cracking and file manipulation. Though the gameplay elements of *Something Bad Happens* are somewhat standard, the payoff of short videos which use time traveling as a narrative hook match some of the themes of the eccentric genre. *The Arrival of a Train to the Station* specifically references the Lumière Brother's 1895 film referenced in the title and the myth of immersive mimesis in which audience members fled the theater at the sight of the oncoming train. *A Glass Nation* tells the story of a dystopic society through the perspective of a documentary film crew organized non-linearly with fake trailers and websites from the year 2012. The interpenetration between film and gaming logics can be seen in Provost's earlier work as he employs a deliberately filmic perspective for his mixed reality games. These preceding projects clearly influenced the development of *Trover*, which, like Geocaching, rewards the users for navigating the city. Provost has also begun to develop an ARG entitled *Bodies of the Hudson* specifically for *Trover* on the iPhone.

3.3 Locating New York City

Dan Provost's use of Manhattan is not an arbitrary choice; it has previously been the playground for a large number of locative media experiments. Within the North American landscape, New York offers an ideal ludic space and psychogeography for what Mary Flanagan describes in her 2007 DAC essay "Locating Play and Politics: Real World Games & Activism" as "post tourism." She borrows from the theory of Dennis Judd arguing that "unlike ordinary tourists, post-tourists do not wish to gaze upon officially sanctioned tourist sites" (Judd qtd in [4]). *Come Out and Play* (2006), *Conflux* (2006), *You Are Not Here* (2007), *Operation Urban Terrain* (2004), *Transition Algorithm* (2006), and *Chain Reaction* (2006) are a few examples of locative media projects Flanagan surveys which engage New York City. *Trover* participates in this distinctly middle class form of leisure and is part of the new model of urban tourism which Flanagan identifies in locative media (see Figure 6). The iPhone application offers a privileged form of access to a database of New York micronarratives. Videos are accessible only to the mobile, and moreover, those with mobile media. The political geography and explicit or implicit boundary lines controlling circulation through space govern access to narrative.

Figure 6. *Trover* US prototype testing in Union Square.

3.4 Database + Narrative

Provost has characterized his work as an "exploration of location and narrative." The site-specific, device-specific nature of the *Trover* application invites the user to contemplate the way each particular filmic object interacts with the current viewing space. Unlike the traditional movie theater which displays films in a controlled, darkened room, *Trover* is not designed to efface the particular embodied location of a viewer in order to create the illusion of immersion. Unlike a home-viewing environment with variable formats, *Trover* does not allow the filmic object to be recontextualized through a user's particular viewing apparatus. Instead *Trover* forces the viewer to make a pilgrimage to the work. The location has the potential to become an important participant in a storytelling process that exceeds its representation. The extra-filmic sounds and smells, the quotidian activity that flows around the user, embeds the application with the larger "lifeworld," a term Walter Ong uses in *Orality and Literacy* to describe how orally transmitted knowledge in narrative form adapt to ever-changing cultural contexts [12], p.

42. This transmedial and embedded dimension to narrative — the interaction between the text and its site of production and reception — has been generally overlooked by the narratological constructs in classical theories of narrative as seen in the work of Gérard Genette and Gerald Prince.

Trover establishes a database in which narrative is no longer the privileged mode of classification. Because *Trover* uses an algorithm which classifies according to a spatial, instead of narrative logic, submitted films could potentially be fragmented and dispersed into the database (see Figure 7). Narratives would no longer be viewed as distinct entities, but as part of an ever-evolving, multiply-authored database architecture that is, to use Ted Nelson's term, "deeply intertwingled" [10].

Figure 7. *Trover*'s GPS capabilities.

3.5 Man with a Movie Camera 2.0

Trover is situated directly in the debate initiated by Lev Manovich about the relationship between database and narrative in new media studies. Manovich appropriates Vertov's *Man with a Movie Camera* (1929) as an early avant-garde forerunner of new media and database aesthetics. *Man with a Movie Camera* catalogs a day in the life of a Soviet city, juxtaposing the machines and urban spaces against the individuals inhabiting them using a variety of experimental production techniques that self-reflexively foreground the role of the camera and the cameraman. *Trover*, one might argue, functions as a kind of *Man with a Movie Camera 2.0.* Also taking contemporary urban space as its central subject, *Trover* was developed with New York as the primary location for development. Whereas Vertov's film was created using technologies which could depict urban collectivity and be produced for the masses, it was unable to be made by the masses. The class issues implicit in iPhone ownership aside, *Trover*'s success is based on collective contribution. Moreover, the role of the camera and the cameraman in *Man with the Movie Camera* expressed through the central conceit of the Kinoeye — a blinking close-up of an eye that merges camera lens with embodied vision — is reinscribed in Provost's application in which the technical apparatus of viewing and filming are identical, thus tying together the subjectivity of machine, filmmaker and audience through this convergence. Provost's application literalizes the metaphor of the Kinoeye in order to produce what one might call an iEye.

This doubled vision produces a mixed reality in which multiple temporalities interpenetrate each other in the moment of viewing.

If the game *Portal* uses the concept of the portal to fold space within a single temporality, Provost's project creates a database in which time is folded within the same spatial coordinates. The application extends a promise of being not only able to inhabit multiple temporalities, but also subjectivities due to the convergence of viewing and filming apparatus.

3.6 Prosumer Narcissism

Rosalind Krauss's well-known 1976 essay, "Video: The Aesthetics of Narcissism," is worth revisiting in the case of *Trover*. Her essay proposes defining video not in terms of its techniques, but as a psychological condition. Narcissism, she suggests, becomes video's medium [14]. Examining video artists from the seventies who make use of mirrors and self-consciously bring together subject and object in a series of feedback loops, Krauss notes the consistency with which video art focuses on the body. If YouTube is any indication, having appropriated the low-resolution head shot as the signature camera angle of both the website and the users, the transition from analogue film to the digital database has only accelerated this narcissistic drive that Krauss proposes is as a structuring condition of video. Thus, returning to the discussion of Vertov, if the subjectivity constructed by *Trover* is a contemporary incarnation of Vertov's Kinoeye, now the iEye —the result would be a serial, redundant database composed of doubled, narcissistic gazes.

This doubled optical regime that brings together filmmaker, viewer and machinic vision is packaged neatly within the corporate ideology of Apple — selling a cult of collective individualism via consumption. The logic of the marketplace and "prosumer" politics are part of the composition of *Trover*. In the same way that the conflation between filmmaker and viewer trouble subject-object boundaries, production and consumption cannot be separated in Trover. As an iPhone application, *Trover* doubly inscribes this relationship towards user-generated content since the application designer himself functions as intermediate "user" of the iPhone hardware creating a pyramidal scheme of freely offered labor with *Trover*'s audience of producer-consumers as its base. As Ian Bogost has written, most game developers are lucky if they make "enough to pay for the iPhone and Mac laptop or desktop [they'll] need to develop for the platform in the first place" [3]. While there are a few exceptions, the over 40,000 iPhone applications currently offered exist predominantly as a way for Apple to generate revenue from sales of the device itself.

3.7 Urban Palimpsests

Trover raises a new set of questions regarding the relationship of the film to its rootedness in a specific location. A viewer might be encouraged to see beyond the frame, to experience the tissue of temporalities as they stack upon each other. In *Civilization and its Discontents* (1930), Freud creates a thought experiment using Rome and its long architectural history. He describes contemporary Rome as a kind of palimpsest in which one can see the traces of the past. He asks the reader to compare the city of Rome with the psyche and memory imagining a Rome "in which nothing that has once come into existence will have passed away and all the earlier phases of development continue to exist alongside the latest one" [6], p. 45. This experiment in temporal folding Freud imagines makes it such that all the major monuments of Rome that have existed over time would coexist.

Freud ultimately concludes that this thought experiment is a failure and writes that "there is clearly no point in spinning our fantasy any further, for it leads to things that are unimaginable and even absurd. If we want to represent historical sequence in spatial terms we can only do it by juxtaposition in space: the same space cannot have two different contents. Our attempt seems to be an idle game. " [6], p. 44-5. It is no coincidence that Freud chooses to represent his discussion of Rome as a game, although idle may be the wrong term. Such a doubled vision is what the mixed reality of *Trover* (a filmic device invested with a gaming logic) and the recent trend in game design (themselves invested with a filmic logic) are working towards establishing. The non-idle, ergodic aspect — physically having to move through space and the kinetic actions a user must perform to play the games — are tied to this attempt to re-imagine a user's relationship to space and time.

3.8 Extending the Index

Trover may not produce the perfect playback Freud imagines in which an infinite number of temporal moments are simultaneously apprehended, however, the application does allow for a collectively-created spatial history to be produced by overlaying contemporary location of any one viewer with the filmic trace. In doing this, *Trover* raises anew debates regarding the ontological status of digital film. As theorists such as André Bazin and Roland Barthes[2] have most famously discussed, one of film's defining qualities has historically been its indexicality: the necessary relation between the photographic object and its referent through the physical process of light leaving a trace on photosensitive film. Digital media critics have argued that, on a technical level, digital film does not hold the status of time's fingerprint or indexical trace. In the place of analogue film arose, as Mary Ann Doane has described, "the vision (or nightmare) of a medium without materiality, of pure abstraction incarnated as a series of 0s and 1s...Even light, that most diaphanous of materialities, is transformed into numerical form in the digital camera" [4], p. 142.

This ontological separation between digital and analogue media is what lies at the heart of Hansen's distinction between Deleuze's cinematic ASW and the digital ASW. The lack of indexicality, the lack of referent in the empirical world, functions in the works he examines to produce a radically alien space that is incommensurable with embodied human experience. However, it is worth asking if an application like *Trover* generates a new kind of digital indexicality? *Trover* is both site and medium specific as the filming and viewing apparatus, Apple's iPhone, are conflated. Is a work which maintains a confluence between output and input creating a new kind of indexicality that is unique to digital media? This digital index would pertain specifically to the logic of the copied file. The difference is the audience brings with them the necessary medial components to create the work in the specific site of its reception.

One might see the site-specificity of *Trover* as an attempt to re-inscribe a kind of digital index. Hansen believes the radical

encounter with the digital ASW as productive, ironically, by emphasizing not the virtuality of an image, but the "virtuality of the body itself" [7], p. 215. Hansen asks if it is possible that the digital ASW might not restore our "link with the world?" [7], p. 215. The site at which our belief in the world is revived is relocated not in the indexical status of a sign or image, but in a person's embodied, affective response. This results in what Hansen describes as a "reality-conferring affectivity" [7], p. 217. In the way that analogue film, as Doane describes, posits an "existential bond" between the photographic image and its object, the *Trover* application is taking a different route to affirm an ontological connection between the digital data and its location via the user's embodied experience of a body that has become virtualized within an eccentric space [4], p. 134. Trover may depart from analogue film through the fact that, in a technical sense, the filmic data is non-indexical, but it emphasizes its status as a trace through its site-specificity and the particular kind of embodied response it produces in its users.

3.9 The Return of the Aura

The shattered aura that Benjamin saw as the legacy of mechanical reproduction and specifically film may find itself renewed in contemporary mobile media applications such as *Trover*. When Benjamin wrote the "Work of Art in the Age of Mechanical Reproduction," he took pains to distinguish the practice of cinema from that of other art making practices such as painting largely on the basis of their mode of reception. The cult and ritual value in traditional art practices created an aura surrounding a work that Benjamin attributed to a sense of authenticity generated from a work being rooted in a single place.

The site-specificity of *Trover* merges an older model of reception with contemporary film technologies. Benjamin describes the reception of film occurring "in a state of distraction" that contrasted to what he framed as the deep attention typically assigned to viewing fine art [1], p. 241. Benjamin makes a parallel between film reception and the way in which architecture is similarly consumed in a state of distraction. In *Trover*'s case, instead of projecting a movie theatre-style fantasy of immersion, the application cooperates with the space in order to create a hypermediated reality in which the content of the film and its surroundings are interpenetrated

This is perhaps a situation where two forms of "distraction" produce a different affective response as the user is invited to slow down and ponder the space she is inhabiting — its physical properties and perhaps the changes over the time, its history and the different ways it is shaped by different occupants or by the user's own body. *Trover* arrests a user's distracted passage through a location and leads them to reflect on the space itself in a non-instrumental way — a tool for the digitized *flâneur*.[3]

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[2] See André Bazin's, "Ontology of the Photographic Image." *What Is Cinema? Vol. 1* Trans. Hugh Gray. Berkeley: University of California Press, 2004.9-16. and Roland Barthes' *Camera Lucida*. Trans. Richard Howard. Hill and Wang, 1982.

[3] In his essay on Charles Baudelaire, Benjamin cites Baudelaire to define the the *flâneur* as one who "enjoys the incomparable privilege of being himself and someone else as he sees fit. Like a roving soul in search of a body, he enters another person whenever he wishes" [2], p. 32. *Trover* projects the fantasy of identification between subject and object suggesting that the viewer might "enter another person" at will.

4. CONCLUSION

As the etymology of the term "eccentric" indicates, the works discussed in this paper lie outside the center of mainstream gaming discourse. However, as we are already beginning to see with the dissemination of these eccentric gameplay mechanics into mainstream gaming, it will likely not be long before these logics migrate from the periphery of culture. Although eccentric gaming may be heavily mediated by filmic metaphors, the games use these devices in order to establish a mode of gameplay that is *sui generis*. Likewise with *Trover*, the application incorporates a ludic logic in order to establish a form of digital filmmaking that fully attends to its medial context. While these works may gesture towards impossible logics, their mode of affectivity established for users is one which domesticates the digital ASW. The "alien topology of the computer" is no longer figured as the cryptic skull viewed out of the corner of the eye, but rather embodied in these technological prosthetics that augment our consciousness. These objects colonize a new home in what was once uncanny borderland.

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