



A Sixth Part of the World. **A Film-Engine and a Database.**

Dziga Vertov's Cine-Eye, Video Games and Contemporary Digital Media.

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Abstract: Exploring the issues of continuity between old and new media, this article focuses on the experimental cinema of Dziga Vertov and analyzes how in his work the Soviet Montage director anticipated some of the techniques of digital media, including those of video games. The study compares Vertov's omniscient camera eye to the use of the virtual camera and the free-moving viewpoint in video games, investigates how Vertov outlined the principles of interchangeability and interactivity pertinent to contemporary digital media in *A Sixth Part of the World*, and explains how the database logic of his major montage method reflected the socio-political processes of the new regime.

The study explores the tension between totalizing ideology and the utopian liberation of perception in Vertov's work and the paradoxical effect it has on limitations that cultural production encounters in the age of digital media. My approach is partly based on the film theory of Gilles Deleuze, whose work on de/re-territorialization in collaboration with Felix Guattari, is used to underscore Vertov's conflict between the utopian idea of total coverage and the politics of form.

Keywords: Vertov, cine-eye, database culture, video games, Deleuze, *A Sixth Part of the World*

Dziga Vertov was so many things at once: a director whose montage and cine-eye method influenced the course of film history; a 'film-poet' who pioneered the genre of 'factual poetry', authored numerous scripts in verse, created a film adaptation of song lyrics (*Three Songs of Lenin/ Tri pesni o Lenine* (1934)) and drew upon the experiments of Russian Futurists and Formalists; a sound innovator; a revolutionary who strove to find radically new

paths of artistic expression and to renew older cinematic forms. In recent years his cinema has also resonated with the emergence of the new digital media, and it is this resonance that will be the focus of my article.

As scholars have become interested in the question of continuity between the so-called old and new media, the Soviet Montage director Dziga Vertov has been rediscovered as a precursor of digital filmmaking, while his work has been described by Lev Manovich as ‘the most important example of a database imagination in modern media art’ (Manovich 2001: 239). In his 2001 *The Language of New Media*, Manovich suggests that in *The Man with the Movie Camera/ Chelovek s kinoapparatom* (1929) Vertov, instead of creating a linear structure based on plot, uses the strategy of (re-)ordering pre-existent footage, which is similar to the computer-based logic of data management. Drawing objects from the database of recorded footage becomes the film’s central method and culminates in the sequences that show the film’s editor Elizaveta Svilova at work on the recorded footage as she catalogues the material into specific categories: ‘physical exercise’, ‘the movement of a city’, ‘machines’, et cetera (Manovich 2001: 239). Arguing that some principles of the new media originated in cinematic ways of seeing and structuring its material, Manovich refers to Vertov’s techniques to illuminate how the Avant-garde director prefigured the new media sensibility. He compares Vertov’s montage-within-the shot to contemporary techniques of assembling layers within a single shot, and Vertov’s use of the loop as a narrative device to operations in computer programming.

My goal in this article is to contribute to the discussion of the cinematic origins of contemporary digital culture by (1) expanding on the analysis of Vertov’s database cinema to demonstrate how database logic was relevant to Vertov’s cine-eye method as a whole,¹ and how it was embedded in the contemporary socio-political processes of rationalized building of a new society; and (2) examining how Vertov’s documentary *A Sixth Part of the World/ Shestaia Chast’ Sveta* (1926) presaged some techniques of digital media including those that are commonly used in video games today.

In the game industry, the term *game engine* refers to ‘a system designed for the creation and development of video games’ that provides the game developer with sets of tools and reusable software components (such as sound, animation, scripting, artificial intelligence and graphics) to economize on the process of game development by adapting the same engines to create different games.²

In many senses, Vertov’s *A Sixth Part of the World* could be treated as a *film-engine*. As an exemplar of Vertov’s main montage method – the cine-eye (which, as I suggest below, hinges on the database logic of collecting and organizing data), this film is made in the form of a vast catalogue of Soviet territories, ethnic groups, totems, achievements, means of transportations and more, and presents an early prototype of the electronic database. Furthermore, Vertov conceived the film as a model for workers to follow by filling it in with new content. Thus, it is a ‘film that begets films’, as Vertov referred to it, and it uses a strategy similar to

¹ Lev Manovich’s analysis of Vertov’s database aesthetics concerns only Vertov’s film *The Man with the Movie Camera*.

² Wikipedia contributors, ‘Game engine’, *Wikipedia, The Free Encyclopedia*, 24 May 2012, http://en.wikipedia.org/w/index.php?title=Game_engine&oldid=494174442 (accessed 31 May 2012).

contemporary user-generated practices – offering more evidence for the *film-engine* metaphor.

Since Vertov's aesthetics cannot be disentangled from the political demands of the newly-established Bolshevik regime, with which the director wanted to ally so desperately, this article is also concerned with the socio-political context in which Vertov developed his innovative techniques. I argue that the tension between a totalizing ideology and a utopian vision of revolutionary liberation in Vertov's cinema might also inform the internal paradoxes within today's digital culture. On the one hand, it may release new creative energy and freedom; but, on the other, due to its reliance on the maximum efficiency of communication, it could just as easily function as the source of new restrictions. As the article progresses, I will apply the Deleuzo-Guattarian mechanisms of 'de/reterritorialization' (Deleuze, Guattari 2005) to shed light on this conflict between liberated perception and the politics of form, and to consider the role of this tension in the recent re-envisioning of Vertov as a digital filmmaker.

Previous research on Vertov as a digital filmmaker has been based on his most famous film *The Man With the Movie Camera. A Sixth Part of the World* remains one of the most under-researched of Vertov's films (partly due to its general unavailability before its recent uploading to YouTube) and digital scholarship has not yet taken it into account. And yet *A Sixth Part* offers many interesting possibilities for research into Vertov's aesthetics. Filmed in 1926, after Vertov had written all of his major manifestoes and developed his theoretical concepts (including the theory of intervals), it exemplifies the whole spectrum of Vertov's cine-eye method. It is the only one of Vertov's films that he called a 'cinematographic poem' and is representative of Vertov's newly-developed genre of 'newsreel poetry' (Vertov 1984: 145). Furthermore, it is constructed in the form of a pre-electronic database and offers multiple opportunities for comparing the cine-eye with the techniques of digital media.

1. The Cine-Eye as a Pre-Electronic Database and the Need to Rationalize.

Vertov's rediscovery as a 'digital filmmaker' followed almost immediately upon the emergence of the database as a new genre in contemporary media studies (Liu 2008; Manovich 2001; Folsom 2007). In *The Language of New Media*, Lev Manovich discusses how the principles involved in computer software and hardware interfere with the cultural logic of new media objects' production. The most important computer technology infiltrating the realm of aesthetics, according to Manovich, involves the database, which emerged as an application for computer data access and organization and has since been elevated to the status of a new cultural form in its own right. Database logic defines the principles governing new media production: selecting (the artist doesn't create from scratch but selects from a menu, e.g., the bank of effects and database of stock footage; selecting objects' metadata) and compositing (combining multiple images into a single object, e.g. inserting the live performance of an actor into a virtual set), among other operations. Most importantly, the database has also become a cultural form in the age of digital media. 'Choosing values from a number of predefined menus' (Manovich 2001: 151) shaped a new type of aesthetics that uses explicit and implicit forms of data organization and retrieval. Serving as a structural principle for new

media objects (such as multimedia works like virtual museums, educational CD-ROMs and the internet), the database also redefines the creative process, where multiple interfaces can be applied to the same material. Manovich contends, 'Regardless of whether new media objects present themselves as linear narratives, interactive narratives, databases, or something else, underneath, on the level of material organization, they are all databases. In new media, the database supports a variety of cultural forms that range from direct translation (i.e., a database stays a database) to a form whose logic is the opposite of the logic of the material form itself – a narrative' (Manovich 2001: 228).

The theory behind Vertov's cinema – the cine-eye method – represents the very embodiment of database logic and hinges on a two-step filmmaking process that involves collecting and organizing data. Formulated for the first time in *We: Variant of a Manifesto* in 1919, the cine-eye method provided the basis for Vertov's new genre of 'poetic documentary' (or 'newsreel poetry'). The idea of the cine-eye rests on the assumption that the human eye is imperfect and cannot exploit visual phenomena with the same precision and order as the mechanical eye or camera. Vertov repeatedly refers to the chaos absorbed by a human eye, as opposed to processes of systematization 'inaccessible to the normal eye', and the organization of the cinematic material performed by the mechanical eye (Vertov 1984: 19). The aesthetics of the cine-eye thus hinges on the presumed superiority of the camera in terms of its limitless mobility and power to select and organize the material.

The cine-eye method follows two major procedures: shooting authentic factual material ('life-facts') and its subsequent organization into cinematic phrases ('film-objects'). The first stage of shooting 'life-facts' required sending 'kinoks' [a group of cinematographers] to film the raw material, which would then be stored and catalogued in a film-archive. The second stage, where the director is involved in organizing the raw material into 'film-objects', presupposed breaking down the footage into smaller montage units and the further re-configuration of these units according to the montage principles of the 'theory of intervals' (this is Vertov's principal montage method which I discuss in detail below).

The advent of the cine-eye coincided with the explosive spread of media of mass communications during the formative years of the Bolshevik regime: the expansion of the press network, radio broadcasting, telephone lines and postal services, as well as the unprecedented growth of transportation systems. For instance, according to the statistics presented in Mark W. Hopkins' *Mass Media in The Soviet Union* (1970), the number of newspapers increased from 889 in 1918 to 7,536 in 1932, reaching a record high of 10,688 in 1934, while total circulation rose from 1.7 million to 34.7 million during the same period. The first radio broadcast was made in Russia in 1920 and by 1933 there were 60 operating radio stations and about 1.3 million government-registered receivers and wired speakers (Hopkins 1970: 93-94). In 1928, the first transmission of a moving image was achieved with the help of an electronic telescopic device in Tashkent, while already in 1937 the first television center was organized in Shabolovka, Moscow, which began regular broadcasting in 1939.

This tremendous increase in the flow of information prompted the new regime to search for ways to rationalize information management and to provide for efficient data storage and cataloguing. For Russian Avant-garde artists, the world outside the new Bolshevik state was chaotic (Groys 1992: 21) and they felt destined to rationalize all of it by organizing the

streams of information in accordance with the ideology of the new political order. With the implementation of five-year plans, the whole country was engaged in the rationalization of production to promote efficiency and combat the chaos and unpredictability of the market under NEP. As part of the overall rationalization of production, and with a pragmatic attitude towards labor, Taylorism was introduced into the Soviet Union in the 1920s.³ The Taylorist system of breaking down production into separate elements and reconfiguring them for high efficiency echoes the cine-eye agenda, since Vertov had always regarded the making of documentaries as a production process not much different from the assembly line production of, say, tractors.

Hence Vertov's contribution to the construction of the new regime was the rationalization of newsreel production in the interests of efficiency. In his proposal *On the Organization of a Creative Laboratory* [Ob organizatsii tvorcheskoi laboratorii, 1936], Vertov developed ten objectives for rationalizing every stage of documentary production, from recruiting the cinematographers to the highly strategized editing work of the director, in order to eliminate inefficiency and to implement a comprehensive approach to working with the raw materials of a film archive. For Vertov, one of the ways of achieving this rationalization was the thematic categorization of footage and the application of editing principles to the process of filming itself: 'Kino-eye plunges into the seeming chaos of life to find in life itself the response to an assigned theme. To find the resultant force amongst the million phenomena related to the given theme' (Vertov 1984: 88).

Vertov's assertion that the same factual material could be used for different purposes during the post-production stage reveals the underlying database logic of the cine-eye: 'Film-Truth is made of material as a house is made of bricks. With bricks one can make an oven, a Kremlin wall and many other things. From the filmed material, one can construct different film-things' (Vertov 1984: 45). The idea of building a film-archive with stock footage available for different kinds of projects was predetermined by the new regime's quest to reorganize and structure reality according to political needs. If the cine-eye program was initially conceived as 'the art of organizing the necessary movements of objects in space as a rhythmical artistic whole' (Vertov 1984: 8), by 1925 it was re-defined by Vertov within the new, deeply politicized context: 'The objective of ours we call kino-eye. The decoding of life as it is. Using facts to influence the workers' consciousness' (Vertov 1984: 49).

The cine-eye's underlying logic of gathering and organizing data reflected the socio-political processes of technological change and the rationalized building of the new socialist world. The objective of the cine-eye was to search for the essential symbols of this new world, to reveal the process of their interaction through the organization of 'life facts' into 'film-objects' and to create a precise, well-determined and yet inspiring map of the new reality. The revolution itself became instrumental in creating new symbols and signs: it blew life up into ready-made 'blocks of communication' and Vertov seemed to capture and realize this phenomenon in his work.

³ For the discussion of the implementation of Taylorism in the Soviet Union see Sochor 1981, Turvey 1999.

2. Database at Work: *A Sixth Part of the World*

In *A Sixth Part of the World*, Vertov's ethnographic explorations aim at total coverage. The film's six parts represent an immense catalogue of people and places, ranging over the most distant areas of the Soviet Union and beyond. The camera darts around the USSR, exploring and observing the rituals and everyday activities of its inhabitants, from a 'goat-tearing' festival in Asia to a reindeer race among the Inuits. It documents the vast territories of Soviet space 'from the Kremlin' 'to the Chinese border', 'from the polar circle' 'to the Caucasus mountains' (displayed as intertitles on the screen), while presenting Soviet totems to its audience: 'your factories... oil, sheep, wool, butter, fish, tobacco'. The documentary features all kinds of heavy machinery, clusters of the factory pipes and oil pumps, and lists the various kinds of vehicles carrying goods around Soviet terrain. It also shifts effortlessly from rural collective farms to industrial zones and the urban vistas of city centers (Novorossisk, Moscow, Leningrad), from Tunguses, Samoyeds and Inuits to the bourgeoisie browsing at the Leipzig's trade exhibition, thus moving across geographical, national and ideological boundaries. The film's final reel documents the country's immense leap forward from the backwardness of pre-revolutionary culture: shots of women in veils, shamans' occult dancing and oriental men counting beads and going to the mosque are followed by an elaborate sequence with an icebreaker, shot at a heroic high-angle, and rhythmically intercut with the emblematic entities of Soviet agriculture and industry – grain and heavy machinery.

The database logic of data agglomeration and systematization becomes the principal method for structuring *A Sixth Part*. The film progresses by listing items from a vast catalogue and takes the form of an inventory-like recounting of ethnic groups, names and activities, territories, Soviet totems, means of transportation and communication, all of which make up a 'sixth of the world'.

If one were to imagine for a moment how a computer database engine operates, it provides storage for a large amount of data and, most importantly, it provides for effective communication between its elements, develops models of their interactions and links multitudes of sources, allowing us to search for information in the most effective way. In a similar way, Vertov's pre-electronic database uncovers vast catalogues of images and effectively combines them using a complex network of montage rhythms and techniques, thus actualizing the cine-eye process of data organizing with the help of poiesis. It is important to bear in mind that Vertov self-consciously refers to himself not as a film director, but as a film poet: 'I am a writer of cinema. I am a film writer. A film poet. I write not on paper but on film' (Vertov 1984: 199). He admits that he creates 'newsreel poetry' rather than documentaries and applies this term to the entire corpus of his films (Vertov 1984: 145).⁴ The cine-eye method relates to Formalist research into poetic diction, as well as to Futurist experiments in the 'poetry of fact'.

⁴ Vertov was certainly one of the first multi-media artists whose work on the poetry/film conjunction included writing film scripts in verse (e.g. *The Girl at the Piano*, *Letter From A Woman Tractor Driver*, *A Sixth Part of The World*), adapting song lyrics to the screen (*Three Songs of Lenin*), and pioneering a new genre of a 'cinematographic poetry' which was realized in his first cine-poetic project *A Sixth Part of the World*.

Image 1: Frames from *A Sixth Part of the World*.

Source: Dziga Vertov's *A Sixth Part of the World*.

There are major points of contact between the studies of the rhythmico-syntactic structure of verse by the Leningrad Society for the Study of Poetic Language (OPOIAZ) and Vertov's position on rhythmic editing in his montage theory, the theory of intervals.⁵ The Formalist-systemic approach is revealed in *A Sixth Part of the World* through multiple effects of compositional parallelism, such as the intensification of the montage pace and its subsequent relaxation in all six reels, as well as the circular execution of every other part of the film. Alongside their narrative value, individual shots and sequences are involved in a complex network with all of the film's other elements (montage, graphic representations, recorded speed, filmic devices), whose synthesis provides compositional and thematic closure. The film reveals how myriad scattered phenomena become synthesized into a rigorously formalized montage design that governs its narrative structure and converts 'life facts' into ideological content. Vertov creates the structured space of the 'sixth of the world' – by "entering" the particulars of the vast expanses of the Soviet Union into his "poetic database".

In *A Sixth Part* Vertov not only creates the visualization of a computer database but also anticipates the ability of a digital database to produce new data and data combinations using

⁵ The application of the Formalists' linguistic models to cinematic montage was facilitated in Vertov's case by his personal contact and close collaboration with one of the most prominent OPOIAZ members, Osip Brik. Vertov and the Council of Three (a group of filmmakers founded by Vertov that included, besides Vertov himself, his brother Mikhail Kaufman and his future wife and editor Elizaveta Svilova) published their articles and manifestoes in the Futurist magazine *Left Front of Arts (LEF)* under the editorship of Brik and the poets Mayakovsky and Aseev (Michelson 1984).

the same interface. The film's montage structure demonstrates how one and the same structural pattern (for example, intensifying the pace of montage by gradual decreasing the length of the shots) can be used for ordering different film-objects, or how one montage unit (for example, the close-up of a spinning train wheel) can be combined with a variety of different shots within the film's interchangeable structure.

The development of the principle of interchangeability was crucial for Vertov's utopian idea of initiating the viewer into the filmmaking process by creating models of films that everyone could fill in with new content. This approach bears a striking resemblance to contemporary open-source software, which offers users a number of tools and applications (based on an open code) for generating content or customizing the interface. Vertov repeatedly insisted on the utilitarian foundation of his 'film-poems': 'the experience of *The Man with the Movie Camera*, *A Sixth Part of the World*, of *Enthusiasm* and *The Eleventh Year* were of great help to our production group. These were, so to speak, 'films that beget films' (Vertov 1984: 122).

Just as contemporary open-source software is now developed in a public collaborative manner,⁶ many Avant-garde artists were determined to create 'factories', 'artels', or 'workshops' of artistic production and to move from the individualist to the collective model of authorship. The LEF' concept of the 'literary artel' [cooperative association] reveals a striking kinship to Vertov's idea of group authorship in the work of the kinoks. As part of its polemics with RAPP (The Russian Association of Proletarian Artists), which insisted on the individualist nature of creativity, LEF advocated a 'collectivist' model of artistic creation, which broke the artistic process down into collecting material (by 'specialists of an extraliterary sort' and 'transcribers'/ 'fiksatory') and the literary re-working of it (by 'literary formulators' and 'experts') (Dobrenko 2005: 66). LEF aimed to reduce individual writers' political mistakes by advocating a collectivist approach to literature (Dobrenko 2005: 66). Vertov likewise sees in this approach to art a more efficient way to break with pre-revolutionary artistic traditions in cinema: 'This departure from authorship by one person to mass authorship will, in our view, accelerate the destruction of bourgeois, artistic cinema and its attributes...' (Dobrenko 2005: 71).

Mass authorship characterized the practices of other contemporaneous artistic groups. Jeremy Hicks, in *Dziga Vertov. Defining Documentary Film* (2007), suggests that Vertov's idea of group authorship stems from the worker correspondent movement in Soviet journalism. To encourage reader participation, some newspapers set up an amateur correspondence network and used letters written to the newspapers by *rabkors* [worker correspondents] as a source material for many articles and feuilletons (Hicks 2007:16).

This principle of the interchangeability⁷ of elements applies to both the macro and the micro structure of *A Sixth Part*. By creating an instrument that 'begets other films', Vertov

⁶ Wikipedia contributors, 'Open source', *Wikipedia, The Free Encyclopedia*, 30 May 2012, http://en.wikipedia.org/w/index.php?title=Open_source&oldid=495172300 (accessed 31 May 2012).

⁷ It should be noted that the idea of the interchangeability and combinability of elements in a cinematic work, appropriated by Vertov, could also be attributed to the Formalist tenet of a systemic approach to art. In looking at a work of art as a modular structure in which discrete elements are available for (re)combination, the Formalists laid the theoretical foundation for Vertov's work providing all the necessary "tools" and "interfaces" for the creation of his "database newsreel poetry".

envisioned some of the essential elements of computer software programs. His database approach to filmmaking allowed him to create a ‘DNA model’ of film in which all parts are interchangeable, while the data in his catalogues could easily be replaced with new content. In this sense, his work is markedly different from the film practice of his colleagues in the Soviet montage school, such as Eisenstein or Kuleshov, whose work is hermetically sealed.

3. The Cine-Eye and Video Games.

3.1. *A Sixth Part of the World as an RTS Game?*

Along with envisioning in advance a computer database with interchangeable elements, which now lies at the heart of all new media objects, *A Sixth Part* also anticipated other digital media technologies, such as interactivity, the use of a free-moving virtual camera, the viewer’s real-time engagement with the story, and the activation of the viewer’s physical response – all of which could link cine-eye aesthetics with the realm of video games. In fact, one could imagine *A Sixth Part* as the visualization of a Real Time Strategy (RTS) game: we are presented with a very detailed map; there is multiple data from different parts of this map; and viewers-participants are capable of applying changes to the map’s navigable space. In the following section I will outline the techniques used in *A Sixth Part* that point to some convergences between the aesthetics of the cine-eye and video games.

3.2. *The Cine-Eye and the Free-moving Camera*

One of the crucial techniques in video gaming is the use of a virtual camera and a freely moving viewpoint, when the gamer can use a mouse to control a free-moving camera. Describing RTS games such as *Command and Conquer*, *Ground Control*, video game scholars Wee Liang Tong and Marcus Cheng Chye Tan note that with a free-moving camera,

[T]he gamer is permitted to assume and organise a whole spectrum of viewpoints, ranging from that of a god-like aerial perspective of the battle-field... to a close-up executed with a quick zoom.... The gamer can focus on a particular soldier via a zoom, followed by a retraction of the camera to capture an aerial view of the whole locale, while simultaneously panning the camera 360 degrees around the field of action, all in one continuous execution. Instead of viewing the battle arena from a fixed, oblique, top down perspective, as in older RTS games such as *Starcraft* and *Red Alert*, *Ground Control* allows the gamer to be in the ‘thick of the action’, via the control of camera movement (Wee Liang Tong and Marcus Cheng Chye Tan 2002:106).

The camera’s limitless mobility becomes one of the crucial components of the cine-eye: its aesthetics hinges on the presumption of the camera’s superiority, and in particular on the concept of the camera’s omniscience. Cine-eye aesthetics proposes to overcome the limitations of the human-eye by liberating the act of seeing through the camera’s capacity to infiltrate at any point of the universe, transforming it into a point of view and converting percep-

tion into matter. As Vertov points out, ‘The kino-eye lives and moves in time and space; it gathers and records impressions in a manner wholly different from that of the human eye. The position of our bodies while observing or our perception... are by no means obligatory limitations for the camera...’ (Vertov 1984: 15). In order to achieve this state Vertov would mount his cameras virtually everywhere, including on the tops of the buildings or inside moving vehicles.

In *Cinema I* (1986), Gilles Deleuze conceives of the cine-eye as the illustration of ‘a-centered’ or ‘gaseous’ perception, which rejects the privileged perceiving subject in favor of universal variation and interaction between moving signs and images. Deleuze claims that the human’s eye immobility and its central positioning in relation to the rest of the images makes it inferior to the type of perceptual state achieved by Vertov’s camera-eye, which is capable of infiltrating any point of space. Thus, the cine-eye overcomes any privileged subjective center and becomes part of the dynamically moving set. This type of vision explains Vertov’s predilection for unsettling the relationship between the seer and the seen, for he often inscribes the spectator into the screen space by making her part of the montage assemblage. For example, the second reel of *A Sixth Part of the World* culminates in a meta-cinematic moment showing spectators in a movie theater watching the beginning of the same reel that we ourselves are now in the process of watching.

Image 2: Frames from the Second Reel of *A Sixth Part of the World*.



Source: Dziga Vertov’s *A Sixth Part of the World*.

To better illustrate the complex schema of the cine-eye at work, I propose to use the visual of a multi-screen projection of a space shuttle mission’s takeoff. A video-system consisting of multiple cameras installed at various external and internal points would provide views of the environment inside and outside the aircraft; the monitors in the control room would display multiple and concurrent images in separate windows. Vertov’s cine-eye exactly renders this model of multiple projection, but in addition to images showing the aircraft from all possible angles, the cine-eye would also incorporate images of those who are in charge of monitoring the video information and of us, the audience, observing the entire process.

Image 3: NASA Flight Control Room

Source: http://www.nasa.gov/images/content/160447main_jsc2006e43860_low.jpg

3.3. *The Interactivity of the Cine-Eye*

The question of cinematic reflexivity becomes paramount in constructing ‘film-truth’ in *A Sixth Part* and foreshadows the principle of interactivity pertinent to video games and digital databases, which function not only as data storage but also allow the user to interact with a media-object. Some video game scholars define computer games precisely through the concept of interactivity. Julian Stallabrass notes: ‘The distinctiveness of computer games lies in interaction: the passivity of cinema and television is replaced by an environment in which the player’s actions have a direct, immediate consequence on the world depicted’ (Stallabrass 1993).

In Vertov’s work a rudimentary form of interactivity was achieved through cinematic reflexivity and kinesthesia. Vertov’s preoccupation with the forms of cinematic reflexivity aims to show the spectators how films are made so that they can understand the process and utilize it themselves. Vertov’s overt concern with the reflexive techniques in filmmaking surfaces in his commentary to *A Sixth Part* when he speaks about audience-placement within the film text in terms of the practical resolution of ‘the most difficult theoretical question of the eradication of the boundary between viewers and spectacle’ (Vertov 2004: 182).

Exploring the question of reflexivity in anthropological and ethnographic films, Jay Ruby suggests that by demystifying the technology of the creative process and revealing its methods and techniques, filmmakers may show their quest to be scientific (Ruby 1980). Portraying the spectators as a part of the film’s narrative at the end of the second reel of *A Sixth Part*

is Vertov's way of engaging them in the process of truth-construction. They cease to be the mere referents of the socio-political message and are transformed into agents who can create meaning themselves.

Describing the principle of interactivity in the new media, Lev Manovich suggests that the users become the co-authors of the work, for they themselves choose which elements to display and which paths to follow, thus generating a unique experience (Manovich 2001: 55). The interactivity of *A Sixth Part of the World* is based on the same principle: by transforming his audience from passive viewers into active participants, from external observers into insiders, Vertov grants agency to the spectators. This also reveals his major theoretical postulate of 'life caught unawares',⁸ suggesting that nobody is directing the film. Vertov can thus disavow the authority of the film-maker, since in his view the director should not loom larger than the subject itself. The principle of 'interactivity' in *A Sixth Part* bears an important ideological function: Vertov's inscription of the viewer onto the screen simulates the interaction of the perceiving subject with the other images, which is meant to secure the objectivity of cine-truth. The truth is thus viewed by someone who is part of the truth. Even though Vertov lacked the machinery to make his oeuvre truly physically 'interactive', he certainly succeeded in creating a visual representation of the user interface structure.

3.4. *The Viewer's Physical Response Through Kinesthesia*

Joe Bruce and Jason Rutter argue that in video games, as in other forms of popular entertainment, stress is placed upon physical rather than intellectual responses (Bruce, Rutter 2002: 77). Thus video games make a physical as well as mental impact on the player who becomes actively engaged in them. Although, the presence of this physical interaction is something that differentiates cinema from games, Vertov did make an attempt to arouse some sort of physical response on the part of the viewer.

Vertov's experiments with how bodies respond to cinematic representations were part of his 'theory of intervals'. Formulated in *We: Variant of a Manifesto* [My. Variant manifesta, 1919], the theory of intervals represents Vertov's contribution to the theories of montage elaborated by such Soviet Montage School filmmakers such as Eisenstein (dialectical montage) and Kuleshov (montage of linkage). Vertov defined the interval as the transition from one movement to another, positing it as a differential unit that registers an alteration in the quantity or quality of the movement in the image in relation to other images (Vertov 1984: 90-91). The most frequently used 'collisions of intervals' in Vertov's work involve changes in shot duration, resulting in the gradual increase of the montage tempo, as well as correlations between framing distances (close-up, medium shot), as in the first reel of *A Sixth Part of the World*. Very often Vertov combines several types of such correlations, as in the 'Street

⁸ Despite multiple re-organization of footage during the post-production stage, Vertov consistently claimed the strong reliance of the cine-eye on an improvised method, the primary function of which was to show the spectator the real world as it is. This principle of the cine-eye – 'life caught unawares' – assumed the authenticity of the filmed material and required shooting on location with the use of real people whose work routine is not interrupted. This contradictory tension of filming 'unawares' and the subsequent 'decoding' by reorganizing of the footage can be apprehended by the core values of Marxist dialectical cognition in its effort to replace the passive apprehension of reality with the dialectical construal of it.

and Eye' sequence of *The Man with the Movie Camera*, where the correlation of directions (eyeball versus camera movements) is juxtaposed with the correlation of graphic patterns (the circle of the eye versus the straight lines of the traffic's movement), combined with the gradual reduction to one shot per frame.⁹ One of the most significant functions of the interval is to produce a 'kinesthetic' effect upon the spectator: the viewers' sensory-motor system responds to the onscreen motion as if their own bodies were moving as well. Vlada Petric observes that Vertov sometimes makes the viewer physically experience the interval, especially when employing the 'phi-effect'.¹⁰ The phenomenon of persistence of vision and the impression of continuous movement results from the eye's ability to retain a perceived image on the retina when the perception is over in order to strengthen the 'kinesthetic' impact.

A Sixth Part of the World demonstrates how a 'cinematographic poem' built according to the principles of poetic text structure in fact outlines the model of a pre-electronic database. It also foreshadows some important functions of contemporary video game software, anticipating the principles of interactivity and interchangeability. Returning to the *game-engine* metaphor, it is possible to say that Vertov created a film-engine, whose components unfortunately failed to become a working model for his contemporaries, but surely became an early prototype of digital media.

4. The 'Solvable Maze' or the 'Tangled Rhizome'? Dziga Vertov and Contemporary Digital Media.

One of the most important objectives of the cine-eye was to liberate older forms of film representation that had been corrupted by 'bourgeois ideology', and to establish a new kind of perception suitable for a 'new world'. In aspiring to transcend the boundaries of linearity and false (bourgeois) ideology in contemporary cinema, Vertov seemed to be a hundred years ahead of his time and created visual metaphors that presaged some strategies of video game software, thus becoming a precursor of the database sensibility defining today's digital culture.

Vertov's pre-electronic databases never simply listed data, but employed rigid classificatory mechanisms to stratify and organize 'recorded life facts' into 'film-truth'. And this is where the rigidity of his poesis became most useful as a propaganda tool, for it enabled the rhythmical collision and ordering of separate life facts to be organized into a meaningful ideological message. Moreover, all his prophetic visual techniques were conditioned by the needs of the Soviet regime. The development of the interchangeability principle was part of an overall utilitarian Avant-garde approach to art: artists wanted to create models so that working class could make their own films; while his rudimentary interactivity principle was

⁹ For a detailed description of the graphical patterns in *The Man with the Movie Camera*, see Petric, *Constructivism in Film: The Man with the Movie Camera: A Cinematic Analysis* (Petric 1987).

¹⁰ The phi-effect is a perceptual illusion produced by a successive projection of two images, which due to the persistence of vision generates an effect of their superimposition. This differs from mechanical superimposition (i.e. the simultaneous appearance of two images) due to the stroboscopic pulsation of the interval between the shots (Petric 1987: 139).

used to disavow the authority of the filmmaker and to transform the audience from outside observers into active participants – and thus agents of the regime.

In *Hamlet on the Holodeck: The Future of Narrative in Cyberspace* (1997), Janet Murray distinguishes between two types of new media interactive environments: the ‘solvable maze’ and the ‘tangled rhizome’. Their structures offer two very different configurations: the former drives the gamer ‘toward a single solution, toward finding the one way out’ (e.g., a treasure hunt ends when the treasure is found), while the latter represents a complex, open-ended environment with limitless connections that offer no single way out (e.g., the video game *Civilization*) (Murray 1997: 130–34). While navigating a maze presupposes an eventual exit or resolution, rhizomatic space is characterized by the lack of a solution and is potentially infinite. This kind of maze is derived from Deleuze’s post-structuralist concept of a rhizome – a root-like system representing a heterogeneous, non-dichotomous and non-hierarchical entity (Deleuze, Guattari 2005). Murray’s typology of interactive environments perfectly renders the tensions within Vertov’s ‘database cinema’. Since Vertov’s cine-eye can be viewed as a precursor to new media sensibility, the question arises: to which of the two digital environments does Vertov’s oeuvre contribute – the ‘solvable maze’ or the ‘tangled rhizome’?

Vertov’s utopian dream of total coverage and emancipated perception, striving to transcend time and space by connecting ‘any point to any other point’, certainly seems to display the configuration of a rhizome. The privileged position of the subject is eliminated in Vertov’s a-centered purity of vision, while the relations between the viewing subject and object are modified. Thus, in Vertov’s utopian communist world the distance between the human being and the rest of the world is liquidated. But how free does this make Vertov’s cinema?

The ‘gaseous’ or ‘a-centered’ perception described by Deleuze in *Cinema I* corresponds to the Deleuzo-Guattarian concept of the ‘rhizome’ – a tuber root system that connects ‘any point to any other point’ and represents a heterogeneous, non-closed system. However, the concept of rhizome also consists of two planes – the processes of deterritorialization and reterritorialization, which I apply here to show how the liberating potentialities of the cine-eye clash with the logocentric rigidity and manipulative politics of Vertov’s rhythmic montage.

In *A Thousand Plateaus: Capitalism and Schizophrenia* (2005), Deleuze and Guattari describe the rhizome as a heterogeneous space that establishes the infinite connections of the social world via the processes of assemblage. These consist of the movements of deterritorialization and reterritorialization:

Every rhizome contains lines of segmentarity according to which it is stratified, territorialized, organized, signified, attributed, et cetera, as well as lines of deterritorialization down which it constantly flees. There is a rupture in the rhizome whenever segmentary lines explode into a line of flight, but the line of flight is part of the rhizome. These lines always tie back to one another. That is why one can never posit a dualism or a dichotomy, even in the rudimentary form of the good and the bad. You may make a rupture, draw a line of flight, yet there is still a danger that you will reencounter organizations that restratify everything, formations that restore power to a signifier, attributions that reconstitute a subject – anything you like from Oedipal resurgences to fascist concretions (Deleuze, Guattari 2005: 9).

On the one hand, there exists a plane of instability which seeks to suffuse the given entity by enabling the signs to scatter and ceaselessly interact with each other within multiple locations via ‘lines of flight’ – this is the process of deterritorialization. On the other hand, there is the reverse process of reterritorialization – when the assemblage ‘faces the strata’ again and restores coding and control via the processes of segmentation that aim to re-establish social structure and cultural practice within a specific institutional framework.

Functioning as a montage assemblage, Vertov’s cine-eye consists of ‘directions of motions’ and connects ‘any point whatsoever’ with any other point in the universe, thus constituting a heterogeneous space and representing the cinematic realization of the rhizomatic model. A rhizome also exists ‘between things’ and represents a place where ‘things pick up speed’ – a ‘transversal movement that sweeps one and the other away’ (Deleuze, Guattari 2005: 25), in a manner similar to the kinesthetic charge that Vertov’s images receive in the interval.

Thus, Deleuze’s elucidation of the cine-eye as an ‘a-centered’ vision that goes beyond the confines of any privileged human viewpoint and fuses the subject with matter describes the process of deterritorialization within a rhizome. However, this movement of deterritorialization only divulges one aspect of Vertov’s cinema – its utopian liberation of vision, transcending convention and erasing the boundaries of subjectivity. But the modes of de/reterritorialization, as Deleuze and Guattari argue, cannot be separated from each other. The freedom epitomized in liberated vision hinges in fact on power over others. Vertov’s quest for a rigid poetic form and his use of montage as a tool for making an impact upon the spectator actualize the organizational resources of the rhizome and serve as forces of reterritorialization.

In the eleventh plateau of *A Thousand Plateaus*, ‘Of the Refrain’, Deleuze and Guattari propose the concept of a refrain that engenders forth the systematic quest for reterritorialization, arguing that rhythm and refrain represent those forces of the social world that tend to organize a given space by coding it through mechanisms of periodization. I suggest that Vertov’s cinema fulfills the criteria of a Deleuzo-Guattarian refrain, which constitutes a link between the poetics and politics of Vertov’s montage. The Deleuzo-Guattarian refrain epitomizes the processes of territorial assemblage in the social world whose space it organizes or ‘territorializes’ through the use of the systemic stratifying efforts of rhythm (e.g. a bird sings in order to mark its territory). Purporting to establish a link between rhythm and space, the refrain provides a theoretical explanation of how Vertov’s ethnographic travels became politicized through the poetic efforts of rhythmic montage, as well as how the totalizing efforts of linearity gain control over the imagocentric liberating forces of the cine-eye.

Traveling around the most distant places in the Soviet Union was central to the production of *A Sixth Part of the World*. Vertov’s visual refrain stratifies the ethnographic multiplicity featured in this work by reducing it to two main socio-economic systems: capitalism and communism. His rigid rhythmic stratification is used simultaneously to erase and create boundaries within and outside of the Soviet space. By resorting to rhythm Vertov inscribes the Soviet Other within his own homogeneous construct of the inhabitants of the ‘sixth part of the world’, and at the same time draws a new boundary separating this homogeneous construct from the new Other embodied in Western institutions of capitalism.

The rigidity of Vertov's rhythmic patterns endows the myriad distant and unknown places that he shows the audience with a certain consistency. But one can hardly travel beyond the rigid confines of Vertovian cine-space. His rhythmic structures are circular and provide no outlet for departure or escape – thus the constant return to the inside of the 'sixth part of the world' is an important aspect of Vertov's poetics and politics. The cine-eye – which starts its journey by transcending the limits of centered perception and traversing into things, as well as deterritorializing images towards the dimension of universal variation – now makes a full rhizomatic circle by creating new boundaries for itself via systematizing and stratifying cinematic and social space. By introducing rhythmic forms into his politicized content via the cyclic, rhyming structure of shots within his montage assemblages, Vertov is in fact mobilizing the propagandistic power of his documentaries.

Since it is possible that Vertov's 'tangled rhizome' could just as well be a 'solvable maze', the question arises about the identity of new media, whose logic was foreseen by the film-poet Vertov. At first glance, it may seem that the player of a video game has full control over the game environment, which she can manipulate or change as she wishes. However, as Margit Grieb suggests, despite the fact that the player may create unique trajectories within the game space, all the paths and the overall game construction are finite and prefigured by the game creators (Grieb 2002: 166).

Arguing that all modern-day media are governed by database structures, new media scholars are on the whole rather optimistic about this new identity of artistic production. Manovich in particular emphasizes how all culture will be transformed into an 'open source' and argues that 'this opening up of cultural techniques, conventions, forms and concepts is ultimately the most promising effect of computerization' (Manovich 2001: 333). However, some of the influences of computer ontology on cultural logic may also be, to say the least, alarming.

Intended as the most powerful tool for gathering, ordering and distributing data, the database aims primarily for effective communication. Thus, according to database logic, only the most effective ways and items of communication are being selected and competing with each other. The number of tools and images and the ways in which they can interact grows exponentially, while the possibilities for individuals to perceive the new works are rather limited. Bombarded by such an enormous amount of visual information, the viewer tends to choose only the most effective images and easily becomes 'untrained' to perceive more complex and 'fragile' art forms. Peter Greenaway once expressed this concern by saying that 'cinema's death date was 31 September 1983, when the remote control zapper was introduced to the living room' (quoted in Coonan 2007).

Manovich himself seems to be aware of limitations of database culture observing that 'authentic creation has been replaced by selection from a menu' (Manovich 2001:124), and commenting that through the use of pre-developed data and interfaces 'new media technology acts as the most perfect realization of the utopia of an ideal society composed of unique individuals' (Manovich 2001: 42). Likewise, suggesting that 'games are not about choice', he notes that since games consist of segments of action and spectacle, players are forced to oscillate between the roles of viewer and user. The effect of such shifts is hardly of a liberating

one; it just functions as a suturing mechanism that only further engages players as the game unfolds (Manovich 2001: 208).

In the open-source aesthetics of master narratives, predefined meta-data and pre-developed algorithms, have all the selections already been made for artists whose choices have become more and more restricted in the era of new media? Hence, Vertov's rediscovery as a forerunner of digital sensibility proves to be a rather ironic development. Once a film poet whose cinema of illusionary freedom and multiplicity was predicated on the power over others, Vertov foresaw the database imagination that in contemporary culture controls the generation of artistic production at an even more restrictive, 'molecular' level. The question is whether it is now the database's turn to embark on its reterritorializing circuit of flattening multiplicity and whether this could occur within the strict logarithms of computer programming or the controlling logic of the commodity spectacle in today's consumer and media society.

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