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分散連續性：維爾托夫電影眼理論及實踐中的數位與模控邏輯

Separate Continuity: The Digital and Cybernetic Logics in Dziga Vertov's Kino-Eye Theory and Practice

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本論文係陳佳穗君（R06122015）在國立臺灣大學外國語文學系完成之碩士學位論文，於民國 112 年 2 月 22 日承下列考試委員審查通過及口試及格，特此證明

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摘要

本論文旨在探討維爾托夫的電影眼理論與《持攝影機的人》一片之中的數位和模控邏輯，通過觀察維爾托夫的電影技術如何運用信息處理邏輯，提供一個閱讀維爾托夫以及數位性的新取徑。

考慮到維爾托夫對他所生活的蘇聯社會的關懷，第一章檢視影響維爾托夫電影理論及創作風格的歷史和藝術背景，以及《持攝影機的人》的現有研究，以期梳理出以「電影眼」為基礎的交流系統中的組織管理模式。第二章提出了數位性和模控學的理論框架，為之後第三章分析電影眼理論以及《持攝影機的人》提供立論基礎。為了更清楚理解數位和模控學概念的文化含義，本章考察了媒體學者曼諾維奇、蓋洛威、漢森、維納和海爾思的理論。為重探和複雜化數位性的概念，本章在文獻閱讀中著重於數據處理層面，並暫且擱置論者對數位性和模控學控制邏輯的控訴。本章聚焦在數位化過程與模控實驗的關係，同時整合了漢森的時間數位銘刻概念，寄望從廣義且肯定的角度來理解數位化的概念。第三章探討電影眼在理論上以及實踐上如何體現時間的數位性、模控實驗的操作邏輯、數位性和模控學的文化意義及其在《持攝影機的人》拍製過程中的作用，以進一步考察維爾托夫革命性的電影理論和創新的電影製作過程。

關鍵詞：維爾托夫，《持攝影機的人》，電影眼，數位性，模控學，時間化，反饋迴路

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Abstract

This thesis reads Dziga Vertov's kino-eye theory and *Man with a Movie Camera* in light of digital and cybernetic logics. By examining how Vertov's filmmaking techniques engage the information processing logics, this reading seeks to intervene in Vertov scholarship by offering a new approach to Vertov's film theory and experiment.

Considering Vertov's concern for the Soviet society of his time, Chapter One looks into the historical and artistic conditions that shaped Vertov's film theory and style. This chapter also reviews existing scholarship on Vertov's seminal work, *Man with a Movie Camera*, with a view to identifying the organizing pattern in the interchange system that underpins Vertov's kino-eye method. Chapter Two teases out the theoretical framework of the digital and cybernetic logics that inform kino-eye theory. To better understand the cultural implications of the concepts of digitality and cybernetics, this chapter examines how media theorists Lev Manovich, Alexander R. Galloway, Mark B. N. Hansen, Norbert Wiener, and Katherine Hayles, respectively, conceptualize digitality and cybernetics. This study takes their formulations as a point of departure but will bypass accusations of the control logic in digitality and cybernetics. In particular, the chapter draws upon the functions of the digitizing process in the operation of a cybernetic experiment and integrates Hansen's thesis of digital inscription of time to approach digitality in a broader and affirmative sense. Chapter Three investigates Vertov's kino-eye theory and practice through exploring how the kino-eye method embodies the digital character of temporal passage and the operative pattern of a cybernetic experiment. This chapter takes into account the cultural significance of digital and cybernetic logics and their formative role in the making of *Man with a Movie Camera*. By doing so, it aims to impart a deeper understanding of Vertov's revolutionary film theory and innovative approach to filmmaking.

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Keywords: Dziga Vertov, *Man with a Movie Camera*, kino-eye, digitality, cybernetics, temporalization, feedback loop

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Abbreviations

Goskino	State Cinema Enterprise (1922-1924)
MWMC	*Man with a Movie Camera*
Narkompros	People's Commissariat of Enlightenment
Sovkino	Soviet Cinema enterprise (1924-1930)
USSR	Union of Soviet Socialist Republics

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Introduction

Widely known as Dziga Vertov, the Soviet director was born in Poland as Denis Arkadevich Kaufman. He invented the pseudonym Dziga Vertov for his artistic career from two Slavic words which signify, respectively, "the sound of a camera crank turning" and "to spin or rotate," and worked in the film industry under this name (Michelson xviii). Vertov, collaborating with his Kinoks circles, actively worked as a filmmaker from the beginning of the Russian Revolution till around the mid-twentieth century.[1] He also published writings that celebrate specific film techniques and advocate his understanding of film-truth. Among his film projects, *Man with a Movie Camera* (hereafter *MWMC*) is regarded as a landmark work that vigorously expresses his aesthetic and sociopolitical concerns and cinematic ideals. The film begins with the Soviet citizens waking up and preparing for work, and carrying on with various kinds of labor, all the way to the end of the day when they get off work for recreational activities. In addition to this presentation of Soviet life in the 1920s, the film also touches upon the relationship between man and machine, depicting the contemporary urban landscape from which we can see Soviet people of different professions work with various kinds of machines. Throughout the film, a variety of film techniques are exercised or tested out, such as parallel editing, superimposition, and projection speed.

As an active pioneer in Soviet Montage Movement, Vertov believed that cinema was an art form that could be used to revolutionize traditional art forms. He sees *MWMC* as the signature practice of his own montage theory, for the film per se sought to present the facts of Soviet life in the 1920s through a pure and unique form of film (that is, to borrow Vertov's phrase, "100 percent film-language"), which "rejected the methods of theater and literature"

[1] Vertov coined the term *Kinoks*, which literally means "kino-eye," for his crew including the director himself, the cameraman, and the editor, all of them dedicating themselves to presenting *kinopravda*, or film-truth, and to "[renouncing] the film studio, script and actors" (Vertov, "Kino-Eye" 69 and "Movie Camera" 83). The team has also been described as Council of Three (Feldman 46). The cinematic and sociopolitical goals of the Kinoks will be elaborated in my study.

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(Vertov, "Kinoks" 95). Here Vertov's description reveals that two elements of cinema in particular are at the heart of his film theory: the film form and the departure from traditional art form, to be more concise, the illusive fictionality of art. The significance of film as an art form (the first element) lies in its capability of devising a revolutionary move (the second element) and thus of liberating the audience whose consciousness has been poisoned by the fictionality of art from the paralysis. Some Vertov scholars focus on this influence of cinema and the reaction of the audience. For instance, Jonathan L. Beller argues in "The Circulating Eye" for a law that puts the chaotic life in order as a pattern of "circulation" (299). Beller foregrounds cinema's unique ability to process time and regards the cinematic techniques employed by Vertov as means to transform temporality, thereby suggesting the emergence of the mainstream mode of production—a capitalist one—and subsequently a transformation of "social relations that accompany the capitalist mode of production into a new array that approaches a fully self-conscious democratic society" (299). Other critics, instead of addressing this filmmaker-spectator relationship, focus on Vertov's preferences for the two elements and associate them with the contemporary artistic movements. The two strands of argument both attend to Vertov's unequivocal motive to interact with his contemporaries through the kino-eye method.

In terms of the film structure, *MWMC* performs and focalizes the essentiality of this interactive relationship. We can find two sets of openings that preface the succeeding six acts of the film. The first one is the prelude to the entire film where a cameraman (the protagonist) sets up a movie camera on the upper side of a split frame whereas in the lower part of the frame is a closeup of a movie camera; the second one the preparation of a film screening—the screening of *MWMC*—which exhibits from all aspects how a film theater gets ready for the show. The first opening initiates the kino-eye filmmaking process. The second creates a warm ambience—inside and outside *MWMC*—inviting the audience to sit down, enjoy the film, and

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give their feedback on this kino-eye project. Both openings lead to the same information network: the filmmaker collects footages of real life and reorganizes them into a complete kino-eye project, while the screening of the project forms a feedback loop between the filmmaker and the spectator, shaping and reinforcing the organization of information and the exchange of messages.

By conceiving of the various relationships involved in filmmaking and film-viewing as a network of information, this thesis will look into the informational logic operating in Vertov's kino-eye theory and practice. I argue that some of the principles in kino-eye take on a cybernetic or digital character. The questions guiding this study include the following: Did the information processing logic that predated the digital age have an impact on cultural forms at the turn of the twentieth century? If yes, to what extent? And can we see kino-eye as an example of such digital and cybernetic logics? To explore these two questions, this thesis is divided into three parts, and a conclusion.

Chapter Division

Chapter One briefly introduces the historical background and artistic development of Soviet film in the late 19th and early 20th centuries. On the one hand, the specific ambience of the time shapes Vertov's style; on the other hand, we may also say that Vertov's contemporaries are the potential interlocutors of Vertov's film theory and practice. Attending to the cultural upheavals that define film industry at the time, this chapter aims to tease out the sociopolitical context of Vertov's time with a view to assessing the social functions of cinema. The sociohistorical recap will point to a feedback circulation outside *MWMC* that involves the political authorities, intellectuals, and artists and which sets into motion the organizing mechanism of the film. In addition, this chapter will give a review of scholarship on *MWMC*,

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in particular, how Vertov scholars look at the sociopolitical position and aesthetic goals of the film.

Chapter Two will lay out the theoretical framework of the digital and cybernetic logics that underlie Vertov's kino-eye method. This filmmaking method can be considered digital and cybernetic, I will argue, in the sense that it is a way of organizing data. As media theorist Lev Manovich puts it, there are generally two steps in the process of data organization: sampling and quantification (*Language* 28). While inspired by this technical understanding of "digital," this chapter takes this data processing approach as its point of departure and proposes to understand more broadly digitality as a technological and cultural pattern associated with cybernetics. One inspirational approach to such a widely construed digitality is provided by Mark B. N. Hansen. Hansen basically suggests that we see the divide between a "before" and an "after" as digitality. Although hindered from directly observing the digital structure of time's passing, we can still experience and approximate this structure by means of aestheticizing the fine-grained nature of time. This thesis aims to view the kino-eye method as one example of such aestheticization. On this reading, the dividing mechanism in Vertov's cinema not only signifies the organizing pattern in the production process but also serves as a before-after structuring of time. This chapter will examine how a digitizing process supports the operation of a cybernetic experiment. In doing so, the present study does not follow scholars who see digitality and cybernetic mechanism as a control logic facilitating the capitalist system. Nor does it aim to imply that subjectivity would inevitably have to yield its privileged place to the intelligent machine. Instead, this chapter will return to classical cybernetics and read cybernetics as a data structuring logic before analyzing such a logic in Vertov's film.

Chapter Three will first offer an overview of Vertov's kino-eye theory and then show how kino-eye serves as a filmmaking method which inscribes the before-after structure of time's passing and registers a cybernetic logic through digitizing mechanism. In addition to the

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camera lens, Vertov's famous kino-eye method also refers to film editing. Combining the cooperation of the cameraman and the camera eye with film editing, kino-eye works as Vertov's unique cinematic language he employs to communicate with his comrades. This chapter will focus on Vertov's montage and pick up in *MWMC* examples of the "artifactualized" (borrowing Hansen's term) digital structure that echoes what Hansen conceptualizes as temporalization of time's passage (Hansen 298). Next, this chapter will interpret how the working of the kino-eye method reflects that of a cybernetic experiment. I will apply cybernetic concepts—for instance, the process of data collection and organization, the goal of achieving efficiency, and information feedback loops—and locate them in Vertov's kino-eye theory and the making of *MWMC*. Ultimately, this thesis aims to read Vertov's kino-eye theory and practice with a new approach and to consider digital and cybernetic patterns as cultural logics in an affirmative way.

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Chapter One

Responding to Early Twentieth-Century Soviet Russia

This chapter teases out the historical context of Dziga Vertov's youth and the development of cinema in Soviet Union, with a view to complicating the mechanism of Vertov's montage, ruminating his choice of the film as the medium of communication in relation to the sociopolitical and cultural context, and exploring the pivotal axes—political or aesthetic—embedded in his film theory and practice. Looking at the historical and sociocultural context, some scholars foreground the point that Vertov was born in a rather tumultuous period of time. They inspect Vertov and his projects against a backdrop so rigid that the social conditions would have vigorously shaped the mind of the community and acted upon a filmmaker's career to an extent that he or she has to follow the approach decreed by the state. With this social influence taken into account, this chapter argues that what concerns Dziga Vertov centers not only on the efficiency of his propagandistic projects but also on the social functions of film as an art form. The former unavoidably worked with the latter as they were both incorporated into the entire information network underlying the Soviet Russian society, a society which survived the raging of war and yet arrived at a grim reform of the Bolsheviks then rashly resorting to organization of domestic disorganization. In the light of the network underlying this domestic organization, this chapter does not suggest an imposing system dominated by the authority but more of a reciprocal one where the community members readily react to each other. In this chapter, I would like to examine both Russian history and the Soviet art movement and show that the social functions of film respond to the domestic organization and its artistic forerunners. Finally, I will point out an organizing mechanism that functionally operates this network where *MWMC* works most significantly as one of Dziga Vertov's move in relation to his contemporaries.

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The Kingdom of the Shadows under Red Illumination

My socio-historical review will focus on the 1920s for two reasons. On the one hand, scholars usually remark on early Russian cinema and Vertov's film career, starting from 1918. David Bordwell, for example, focuses on significant socio-historical events in his canonical *Film History*. He leaves out the embryonic phase when the new medium was first introduced to the Union of Soviet Socialist Republics (USSR), which henceforth began to make films of their own, and jumps to the more acclaimed Russian Montage movement which began in 1925 to 1933 (103). For another example, in his *Lines of Resistance*, Yuri Tsivian explains that this specific period signifies not simply "a timeframe . . . but [an] active environment, a set of 1920s-specific conditions, or better, a system of period pressure—critical pressures, artistic or bureaucratic ones, production-caused, distribution-related" with which Vertov interreacted effectively (1). As such, the twenties marked a critical phase that saw the rise of the Montage movement and the eventful social conditions *MWMC* attempted to respond to. Moreover, World War I, together with the following revolutions, left the Soviet film industry no choice but to suspend most of the productions. In spite of the rigorous postwar situation that made Russia a barren land almost impossible for cinematic creative attempts, these years seeded the industry with the themes for future Montage directors to work on and to develop into their film projects. Some of their projects made during the twenties were evidently dedicated to the life-changing events of the 1910s—to name but a few, Vsevolod Pudovkin's *The End of St. Petersburg* (1927), Dziga Vertov's *Eleventh Year* (1928), Sergei Eisenstein's *October* (1928), and Alexander Dovzhenko's *Arsenal* (1929).[2] Such commissioned projects come into being because on the one hand, the Bolsheviks greatly valued cinema by which they wished to achieve, to an extent, a sociopolitical organization, and, on the other hand, postwar situation weakened the productivity of Soviet film industry so much that filmmakers had to depend on

[2] All of the aforementioned films were commissioned projects for the 10th anniversary of the 1917 revolutions.

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the support from the government. The following review will take into consideration the influences of earlier occurrences and the aftermath of belligerent upheavals while foregrounding the development of the 1920s USSR film industry.

Cinema was first introduced to the Russian Empire in 1896, just a few months after the *MWMC* director, then Denis Kaufman, was born.[3] This "new definition of popular art" revolutionized the community members' ways of visual perception and informational reception (Christie 4). The cinematic spectacularity that shortly seized public attention in the United States and Western Europe extended eastward. Film was, right after its debut in the USSR, well-received, earning overwhelming admiration among Soviet viewers (Youngblood xiii). The popularity continued and even outshined traditional theater in the second decade of twentieth century (Taylor, *Politics* 7). In the years following the 1917 revolutions, film began to assume an influential role and was taken to be the most effective means for political propaganda. The Bolshevik head Vladmir Ilyich Lenin once praised film in a conversation with Anatoli Lunacharsky, the commissar of People's Commissariat of Enlightenment (better known as Narkompros), a newly established bureaucratic organ and the forerunner of Ministry of Education (Bordwell, *Film History* 107). The revolutionary leader earnestly suggested the need to "develop production [of cinema] on a wider basis and, in particular, introduce wholesome films to the masses in the city and, to a greater extent, in the countryside" (qtd. in

[3] Vertov was born as David Abelevich Kaufman on January 15, 1896 in Białystok, now northeastern area of Poland (MacKay, *Life and Work* 6). Approximately four months later, the first showing of cinematograph in the USSR, according to Lebedev, took place on May 4, 1896 at Aquarium variety theatre in St. Petersburg (qtd. in Taylor, *Politics* 2). The very first filmmaking in Russia was the 1896 tsarist coronation of Nikolai II, and the footage of the ceremony was processed in Paris and then published as part of Lumière catalogue in 1900 (Taylor, *Politics* 2; Leyda 18-9). As for Soviet domestic production, Alexander Drankov's *Stenka Razin* (1908) is accepted as the very first Russian film. Although *Boris Godunov*, a cinematic adaptation of Pushkin's tragedy also made by Drankov, was completed and shown one year earlier in 1907, the filmmaker decided to neglect this feature film, and this can be regarded as a commercial move for the sake of the 1908 production (Tsivian, "Early Russian Cinema" 9). The early 20th century saw the coincidental overlap between Vertov's youth and the development of early Russian cinema.

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Taylor, *Politics* 26, 162).[4] For Lenin, the fledging regime could reform the sociopolitical disorder if the far-reaching films could be used effectively.

The attempt, however, did not materialize as expected. Notwithstanding the public hospitality and the approval of high-ranking officials for film, the Narkompros proved dormant in terms of their organization of film industry. Lunacharsky, the People's Commissar, undertook a "gradualist approach" which did not sufficiently fuel their control over Soviet cinema (Taylor and Christie 22). Nor did the ad hoc State Cinema Enterprise (Goskino) effectively foster the industry under the state's direction. Their plan was to exploit the imported foreign films and reinvest the profit earned in the movie houses to revitalize the latent home industry under New Economic Policy (NEP)—a controversial mandate decreed by Lenin in 1921 for easing the severity of domestic economy. The forging of the policy manifested a step backward from the ideal Communist society and a compromising advance in capitalist administration. NEP allowed temporary capital accumulation by returning nationalized companies to private sectors to encourage the flow of commodities.[5] The USSR for sure harbored a film market with a demand big enough to "sustain the considerable commercial cinema activities" and thus reasonable and appropriate for this directive (Kepley 68). This vast scale of market implied a necessity to organize the entire industry into an integrated unit that would include film importation (as well as the would-be domestic production that had not yet blossomed), distribution, and exhibition. Hence came the compromising strategy: the official agencies still retained the control of foreign trade and the authority to oversee film trusts, while promising freedom for smaller film companies to grow and prosper. Pitiful was that Goskino contributed much less in expanding its control over the screening network nationwide and only remained its prevailing status in Moscow—the official simply "farmed out regional distribution"

[4] For more on the reception of film and the official attitude of the official in the USSR, see Taylor.
[5] Yet, these private trusts were accused of capitalizing under NEPism, and New Economy Policy was suspected to be a new kind of "New Exploitation of Proletariat" (Roberts 6).

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(Kepley 73). Accordingly, film firms-retailers, such as Sevzapkino, gradually took over the distribution in remote areas through renting out prints acquired from Goskino to local theaters. This trading system indeed assured the capitalization of such film companies; the privatization of the industry, however, crumbled and led to a terrible inflation of film tickets no longer accessible for workers and peasants, eventually causing the shutdown of movie theaters (Kepley 73-74). This situation was not improved until Soviet Cinema Enterprise (Sovkino) was established at the Commissariat's behest to replace Goskino and pick up the slack in 1924.

Although the industry slowly regained productivity after the advent of Sovkino, on the whole, Soviet cinema was, compared with Anglo-European regions where motion picture burgeoned, harshly challenged in the early austerity.[6] The inchoate USSR, for instance, patterned some projects to produce equipment and raw films by itself and to regenerate usable film stock from old films, but unfortunately these experiments all foundered (Kepley 65). Besides, in May 1918, Jacques Cibrario, a film distributor entrusted by the Narkompros with reams of hard currency, ran away with a fund of more than $1 million dollars (Taylor, *Politics* 72). The Cibrario affair was very likely to be the last straw inasmuch as the Commissariat withdrew its generosity toward the nationalization and construction plan of Soviet cinema (Bordwell, *Film History* 105). Consequently, some prominent prerevolutionary filmmakers—directors, actors, designers, and heads of film companies—fled to foreign lands for better living and artistic development (Bordwell, *Film History* 103-04; Taylor, *Politics* 23). The remaining ones endeavored to meet the purposes of the new government during this disruptive period termed "War Communism." These scandalous blows hit the frail Soviet economy with tremendous financial loss.

[6] The birth of the moving picture can be attributed to several experimentalists in the United States, Britain, and France. See the chapter 1 of David Bordwell's *Film History: An Introduction* for the introduction to the pioneers who competed with each other and contributed to the birth of modern cinema.

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The drastic upheavals confronting Soviet filmmakers means the lack of fodder for the new art, a shortage afflicted with the state's technical deficiency and structural fracture in the domestic film industry. Russia, to begin with, had been heavily dependent on the imported or smuggled machines and raw film that Soviet filmmakers did not patent or did not have the technical skills to produce on their own. Years of warfare that eventually shut down the border resulted in a sharp drop in the import of foreign films and necessary resources for filmmaking (Taylor, *Politics* 50). The absconding cinematic pioneers, eluding economic recession and political imposition, not only left the country with a generational gap in the industry but also took with them the filming equipment on their run. Meanwhile, an imposed policy that required private raw materials to be officially registered eventually backfired. The remaining suppliers, in consequence, hid the resources without delay, making raw film stock even more unavailable (Bordwell, *Film History* 105). Isolated in such a wasteland, the domestic production was evidently not anywhere near prosperous. The industry had to wait all the way until the outbreak of the Russian Civil War when the centralized film organ responsible for agitki—propaganda films—was formed. Still, what the viewers and filmmakers were left with during the wartime was the rediscovered storage of old film and the bleak industry where Soviet filmmakers hardly had access to raw materials so as to develop their own creative experiments freely. Most of the films produced at that time were projects commissioned by the Reds. Accordingly, the exhumed old films—both Russian and foreign—remained to be most of the screened content until 1922 (Bordwell, *Film History* 105). Soviet film industry, starting with intended bureaucratization of cinema, strived to settle in an environment prone to increasing pro-Bolsheviks and Communism-driven productions. This milieu also paved the way for Vertov to step into "the kingdom of the shadows."[7]

[7] Soviet writer Maxim Gorky describes moving pictures as "soundless shadows of movement" after the showing of Lumière's *L'arrivée du train en gare* at the Nizhny Novgorod fair in July 1886. The first experience in cinema, for Gorky, appeared to be a journey to "the kingdom of the shadows" (Gorky 25; Taylor, *Politics* 2).

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Dziga Vertov was among the first filmmakers who joined the production of nationalized films. Hired by Mikhail Kol'tsov, Vertov began his filmmaking career editing newsreels in *Kino-Nedelia* (*Film-Week*), the earliest newsreel in the USSR. The cinematic newspaper took their initiatives in making short newsreels to back up the state then struggling on economic fronts (Kepley 64). From this "kino operation" soon arose Dziga Vertov. In the spring of 1918, after discharged from a military school where he studied in its musical division, Vertov was first employed as an office manager and bookkeeper for the Moscow Film Committee's Photo-Film Division (MacKay, *Life and Work* 125).[8] In October, he was assigned as an editor, and later in February 1919, the Division posted him on the Civil War's Southern front where he was involved with newsreel filming and assigned to record what happened on the battlefield (MacKay, *Life and Work* 125, 194; Bordwell, "Dziga Vertov" 29).[9] Possibly short of raw film stock, Vertov reedited bits of *Kino-Nedelia* into historical compendia, the most favorable of which was *The History of the Civil War* (1921)[10] (Hicks 6). The making of historical film reflected an urge to create contents on a limited basis. At the same time when this precondition appeared to be a confinement hindering creative power from flowering, it inversely turned out to be an incentive for filmmakers to evolve editing into a magical technique that helped to save up and reincarnate a film work in a predicament where, as Graham Roberts describes it, "every image, every scrap of film had to be used and reused to maximum effect" (16).

Yuri Tsivian argues in his "The Wise and Wicked Game" for the significance and mechanism of reediting in imported and exported films. Apart from its original meaning, reediting (*peremontazh*) work, Tsivian explicates, also entails "such operations as retitling,

[8] The first volume of John MacKay's *Dziga Vertov: Life and Work* was published in 2018 (Two more volumes are expected to come into existence in the future). In this biographical first volume, MacKay encompasses the archival resources he accessed during his visit in Russia and explains in great details what shapes the underlined director as a member of Soviet community and as an artistic worker.

[9] Although *Kino-Nedelia* serves as the bud for the director's blooming career in cinema, and very often the "'screen paper'. . . leads off any Vertov filmography," MacKay points out that the *Kino-Nedelia* installments, strictly speaking, can hardly be attributed to part of the Vertov repertoire (Boltianskij qtd. in *Life and Work* 194).

[10] The documentary has been discovered and restored by film historian Nikolai Izvolov, and was recently scheduled to be shown at the 2021 International Documentary Film Festival Amsterdam (IDFA).

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altering the main title, changing character names, and adding new scenes to preexisting footage. Usually, reediting is associated with censorship, and is regarded as part of the political history of film" ("Wise and Wicked" 23). Foreign films were reedited to fit in certain political orientations, while domestic productions underwent the process of reediting so as to ensure their profitability. On the one hand, films made in a land of revolutionary and communist spirits were ironically transformed into commercial and capitalist-ish ones—or, to use Tsivian's word, "'capital reediting'"—for foreign viewers. On the other hand, the imports went through sovietization to be "ideologically acceptable" for the later distribution in the home market (Taylor, *Politics* 46; Tsivian, "Wise and Wicked" 30-31). The reediting work was even centralized and professionalized—naturally in favor of the governmental censorship and better supervision of the inconsistent quality of reediting (Tsivian, "Wise and Wicked" 31-2). Although censorship got in the way to control the imported films, re-editors could still exert an influence on what were eventually played on the Soviet screen. They had the right to explain in a meeting with the censorship board the changes made to imported films and to withhold the release if no agreement was achieved during the meeting (Tsivian, "Wise and Wicked" 46). Therein, the "wise and wicked" (words borrowed from Eisenstein by Tsivian) technique functions both as a vital factor organizing the disordered industry and society, and as the channel by which Soviet filmmakers responded to the requests and maneuver of the governing body.

At the outset, Vertov's film career conformed to the development of Soviet cinema, an industry that grew in a setting preset by the USSR politics. The intertwined relationship of the three bodies—the Bolsheviks' governance, the film industry, and Vertov's filmmaking course—comes into the picture from the early Soviet film history. Here, the affinity between Vertov and political locus of control, though still equivocal, prompts us to reconsider Vertov's montage style in this way: the early development of editing and reediting probably shed light

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on the pattern that led to Vertov's active use of editing in *MWMC*; the essence of the film—montage—is the "wise and wicked game" played by Vertov and a method applied to respond to his contemporaries. By the affirmation of their connection, I do not mean to stress the fact that Vertov was a Russified subject or that his early cooperation with Moscow may matter in any extent when we discuss the filmmaker.[11] This thesis intends to see beyond the political and ideological control imposed by the Bolsheviks on the USSR film industry and to explore the organizing mechanism of editing that underlies Vertov's film theory "kino-eye" and cinematic practice *Man with a Movie Camera.*

Now, to entertain this mechanism in more depth, we have to do a mini side journey to the Soviet art movement.

Artistic Response to the New Medium and the New Society

Scholars have noticed that contemporary artists exerted an aesthetic influence on Vertov (see, for example, Michelson, "Introduction" xxiii, and Feldman 43, 47). Most of the observations suggest the influence from avant-garde, Futurist, and Constructivist movements. As a pioneer in postrevolutionary filmmaking and an author of boisterous manifestos and film projects, Vertov immediately proves to be an active avant-garde artist. On the one hand, the recurring presence of machines in his films verifies Vertov's pro-machine attitude. On the other hand, the presentation of machines, together with his fast-paced editing rhythms, points to the Futurist influence.[12] Moreover, the signature fragmentation and reorganization of footages

[11] John MacKay suggests that in official documents Dziga Vertov is usually referred to by "D. A. Vertov" or "D. Vertov" (*Life and Work* 155). The initials of the former suggest two names Vertov adopted—his birth name David Abelevich and Denis Abelevich, a Russified name he took on in 1918 (MacKay, *Life and Work* 155). According to MacKay, it is common to see nominal Russification among "the young members of the Russophilic Jewish milieu [Białystok] in which [Vertov] grew up" ("Dziga Vertov" 285). Although most of the population of Białystok remained Jewish, the language commonly and officially applied across the region was, instead of Yiddish, Russian (MacKay, "Vertov before Vertov" 10).

[12] Branching from Cubism, Futurism, according to Martin F. Norden, adheres to Cubism in terms of "fragmentation and recombination of objects, while Futurists were more interested in movement, speed and dynamism," and Cubists deal with static objects most of the time (108).

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mobilized to fulfill "social function[s]" register *MWMC* in the Constructivist category (Bordwell, *Film History* 109). Following Vertov's writings, critics have also noted how Vertov's "life caught unawares" concept is realized as a cinematic ideal in *MWMC*. Above all, the question of style addressed here derives from the status of cinema as an art form in Vertov's time.

A fresh form of art coming with the newborn regime, cinema provoked a cultural revolution waged to denounce the old and embrace the new. The orientation of Soviet cinema to challenge the ascendant cultures had partly to do with the political change. Accompanying the takeover of the Bolshevik government were the Party's consolidating initiatives to secure its power in a way that repudiated anything symbolic of the tsarist Russia. Classical arts such as theater and literature are part of the targets. These traditional forms represented "high arts" that had been primarily enjoyed by the upper class and the bourgeois, and the entertainment which cinema, a visual form open to and embraced by both cultured and uneducated classes, was militant to challenge. (Tsivian, "Early Russian Cinema" 8). In this social vein, film proved to be the landmark art form of the new era. And, Montage filmmakers were passionate supporters of film who laid the groundwork for montage, established the technique as a vital filmic element that "distinguished cinema from its forerunners," and highlighted the cinematic signatures (Taylor, "Cinema" 441). Among these ardent advocates, Vertov and his film *MWMC* stand out and exemplify the documentary power of cinema and the characteristic montage that can best configure postrevolutionary spirit.

Testament of Cinema

In Vertov scholarship, two topics stand out in particular: the director's sociopolitical stance, and the filmic realization of Vertov's aesthetic ideal. Through examining the everyday Soviet life *MWMC* portrays, scholars note Vertov's focus on the working class and their

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collaboration with machines, which they think is evidence of the director's socialist and communist ideas of society. In a different vein, some scholars look at Vertov's resistance to fiction and draw attention to how he foregrounds *kinopravda* as a required cinematic element. While reflecting the forces that shaped Vertov politically and aesthetically, the two topics reveal "the relevance of his film project in the overall scheme of cinema," that is, the contemporary artistic dynamic relationship that, as Thomas Tode claims, paves the way for the formulation of Vertov's cinema (123). The following section reviews a select cluster of studies that represent predominant approaches in current Vertov scholarship.[13]

In "An Interpretation," Bertrand Sauzier examines Vertov's sociopolitical concerns in a thorough textual analysis. Dividing the film into segments and units in each sequence, Sauzier offers in each segment his observation on each section of the film's narrative; paring with segments he also enumerates metaphors embedded in each episode. He suggests that such decomposition of segments and units point to two discourses coexisting in *MWMC*: one is a picaresque narrative and the other a poetic metaphor (31). Following his detailed descriptions of the narrative episodes, we can see how Vertov shows the cameraman as a picaro, an adventurer who exhibits his filming activities in his diurnal exploration. This adventure, Sauzier maintains, is presented as a poetic structure, a structure that Vertov imparts to the narrative part while bringing a message to his worker-spectators. This message concerns an ideal Soviet society. In order to dissect this sociopolitical message from *MWMC*, Sauzier compares the task of a film editor, the process of "observation, classification, analysis, and synthesis," with that of working-class people (43). This comparison also applies to their

[13] Vertov studies are conducted in languages other than English which include the much cited Russian collection of Vertov's writing, *Stat'i, dnevnik, zamslyk* (*Articles, Journals, Projects*), published in Moscow in 1966. Also, the Soviet director is "hotly debated" among the 1960s French filmmakers "Edgar Morin, Jean Rouch and George Sadoul from 1959 onwards," who looked up to him as a muse for *cinema vérité* (Widdis). My discussion is confined to English publications.

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respective cooperation with machines. As the Kinoks are shown working with cameras and their editing device, the manual labor and machines collaborate effectively (Sauzier 42).

In "Can the Camera See? Mimesis in *Man with a Movie Camera*," Malcolm Turvey considers *MWMC* a visualization of Vertov's kino-eye position or what Vertov deems as an ideal Soviet society. Turvey suggests a "utopian vision of new people" by interpreting the filming apparatus as a magician-like entity ("Mimesis in *Man*" 44). He argues that the movie camera is equipped with what Walter Benjamin calls the "mimetic faculty" and can induce the viewers to see the human-machine fusion (Turvey, "Mimesis in *Man*" 29-30). According to Turvey, Vertov employs kino-eye methods to present mechanized human beings and humanized machines ("Mimesis in *Man*" 27-28, 44-45). On the one hand, Vertov builds a metaphorical connection between the human and machine entities by superimposing an image of a human eye on that of the camera lens. In so doing, he grants a visual predicate to the movie camera and breathes life into the machine. On the other hand, Vertov captures Soviet citizens repeating certain actions at work: for instance, a traffic policeman is repeating instructive gestures to direct the vehicles on the street, or the worker at a cigarette factory is repeatedly folding and then throwing the paper boxes behind her back. Turvey points out the resemblance of the human action to the repetition of machines' work. Altogether, the humanized image of machines and the mechanized human beings bring forth the vision of "new people of the future" and the ideal image of the utopian Soviet society where humankind and machines amicably work together (Turvey, "Mimesis in *Man*" 48). Moreover, by the fusion of machine and human agents, Turvey reaffirms Vertov's idea that the human eye is imperfect and that the kino-eye camera "perceives better" ("Mimesis in *Man*" 31-32).[14] All in all, the camera's prevailing ability to document life, as Turvey argues, facilitate Vertov's presentation of the ideal Soviet society.

[14] Instead of *kino-eye*, Turvey uses *cine-eye* as the English translation in "Mimesis in *Man.*"

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In his "'Peace between Man and Machine,'" Seth Feldman argues that *MWMC* realizes Vertov's ideal of "life caught unawares."[15] Looking at the Bolshoi Theater sequence, the image of "Bolshoi Theater—that icon of traditional Russian performance—collaps[ing] on itself" in Vertov's split screen, Feldman identifies the director's opinion, a similar attitude of bidding the old art—theater—adieu and welcoming the arrival the new one—cinema. (Feldman, "Man and Machine" 41). In addition, Vertov advocates what he calls "life caught unawares." This life caught unawares, or life-as-it-is, means "without masks, without makeup, to catch [life unawares] through the eye of the camera in a moment when they are not acting, to read their thoughts, laid bare by the camera" (Vertov, "Birth of Kino-Eye" 41). As the opening titles of *MWMC* make clear, no scenario, actor, or title card is to be found in this film. The Kinoks rely on this "observational abilities of cinema" to construct film-truth—in Vertov's word, *kinopravda*—by kino-eye methods (Feldman, "Man and Machine" 47).

The film is widely received as celebrating the observational power of the filming apparatus; equally explicit is the human-machine compound, expressed in *MWMC* in the famous image of the human eye superimposed on the camera lens. Vertov also foregrounds the utopian relationship between the human subject and machines by presenting the cameraman with his camera as well as the Soviet working class alongside technological facilities and factory assemblies. *MWMC* has perfectly performed the director's manifesto through its unique *kinopravda*, the ability of film to document reality. In Vertov's view, *kinopravda* can be achieved only through his *kino-eye* methods.[16] Here kino-eye denotes not only the filming machine itself but also the film techniques applied in the filmmaking process. On the one hand, kino-eye practitioners (Kinoks) value the fact that the movie camera extends the range and ways of human observation by adopting the different shooting angles a human observer cannot

[15] The Vertovian term "life caught unawares" is sometimes translated into English as "life as it is" (e.g., in Petrić's writings).
[16] This Russian term (kinopravda) is later translated by film historian Georges Sadoul into French as the well-known *cinema verité* (Feldman, "Man and Machine" 51).

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assume. Or, by riding on a car, the cameraman is able to apply a tracking shot to capture objects in motion. On the other hand, the film editor acts as the magician who enchants discrete frames and makes sense out of them by building the connection between variously themed footages. In the case of *MWMC*, a prominent image is the juxtaposition of the filmmakers and the machines in the factory associated with the working class. This link provokes the Soviet spectators to identify with the role of cinema in political and aesthetical discussions. What is noteworthy is that Vertov's film does not lose sight of the revealing quality of cinema and the significance of film editing: a film is able to document not only a slice of the Soviet life but also its own montage per se or, more precisely, the organizing logic underlying the film's montage.

We can find this organizing logic in the film structure constructed by montage. One line of debate on *MWMC* concerns the film's validity as a city symphony. Films in this subgenre are mostly known to display diurnal events happening in a city.[17] In the case of *MWMC*, Vertov's editing chronologically composes urban sequences in the film according to the routine of a typical day, a common narrative structure for city symphonies. To an extent, *MWMC* indeed seems inspired by the city-symphony tradition. Critics such as Yuri Tsivian have understood *MWMC* this way (Tsivian, "His Time" 10). However, the film is neither a city symphony that simply shows urban images of a selected city to the audience, nor a traditional documentary that presents an innocent reflection of reality. *MWMC* should not be considered in the city-symphony category, in the first place, in that the compiled footages are gathered in more than one Soviet city; the footages are in fact shot in Moscow, Kiev, Donbas, Yalta, and Odessa (Roberts x). In addition, the opening and closing images together re-position the Vertov film in a different context. *MWMC* starts with the scene of a movie theater getting ready for

[17] A famous example is Walter Ruttmann's *Berlin: Symphony of a City* (1927), a documentary film released two years before *MWMC* which focused on the eponymous city Berlin. Another renowned example is Charles Sheeler and Paul Strand's 10-minute *Manhatta* (1921).

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screening, instead of showing the beginning of a typical day in a Soviet city. Likewise, nor does Vertov show the end of a Soviet day as the closing image—what we have is instead the camera eye irising out. Taken together, the motif of reminding the viewers the filmmaking process accomplishes the overall structure as a reflexive design. Through the arrangement of the filmic structure, I argue for an organizing mechanism in the editing pattern of *MWMC* both compiling the bits of celluloid into an ordered chronology and contemplating cinema's position in relation to its contemporaries.

Altogether, what the organizing mechanism of editing in *MWMC* exhibits in the first place is the relationship between cinema and its filmed subject. This presentation of relationship reconciles Vertov's strong belief in film-truth with the seemingly contradictory nature of montage that he also so enthusiastically praises. This rapprochement of the two parties calls into play the question of documentary films some film scholars have contested. A documentary film, William Rothman argues in "The Filmmaker as Hunter: Robert Flaherty's *Nanook of the North*," is neither innocently documenting the life of the filmed subject nor revealing the true self of the subject/protagonist; the documentary film, instead, reveals "an expression of real relationship between camera and subject" (Rothman 25).[18] On this account, what is "documentary" in *MWMC* is not the bona fide representation of the Soviet life, but its role as a grand testimonial to cinema. In regard to the production aspect, Martin Scorsese states in an interview that a filmmaker fails to document the truth of reality at the very moment when the subject is aware of the presence of the camera (Donato 204). Claiming so, the American director does not entirely disapprove any possibility to process and convey filmed truth—or film-truth (kinopravda), to use Vertov's word. Instead, Scorsese still believes in the special moment when the filmed subject gradually forgets the presence of the camera and when the

[18] As in Rothman's case study, *Nanook of the North* does not intend to present a genuine aboriginal life in the Arctic area. Instead, *Nanook* is keen to disclose the purpose of the film project, that is, to rationalize the exploitation of nature and of the aborigines.

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film is thus able to bring forth a "documentary impulse" (Donato 202-03). Therein, "a truth, as opposed to *the* truth" defines a documentary film (Donato 207; emphasis added). This argument is verified in the filmmaking process of *MWMC.* As Seth Feldman points out, the Soviet people appearing in *MWMC* in general agree to be the subjects of the film. Their consent further testifies that to make observational films does not require a filmmaker to sneakily "hide the camera"; instead, the point is about finding a way to curtail or offset the molesting presence of the camera (Feldman "Man and Machine" 27). As such, Vertov's choice of subject (the working-class people) and the way he presents them (kino-eye methods) combine to reveal his contemplation on cinema's relationship with the Soviet community and the film's subject-spectators.

This cogitation stems from the interplay of Soviet art movements and cinema. Vertov's *MWMC*, as Albert Leong notes, "incorporated two principles which were to remain at the center of Vertov's cinema: the power of technology, hence the superiority of the mechanical camera-eye to the human eye; and movement, as the very nature not only of the mechanics of the machine, but of the whole social and physical universe" (qtd. in Norden 110). The technological axis pivots on the general fondness for machines and disapproval of "traditional art forms," both shared by Vertov and Cubo-Futurists (Bordwell, *Film History* 109).[19] For the *MWMC* director and Cubo-Futurists, the camera eye became the worshiped machine that propagated the encompassing scientific objectivity in documenting whatever it is that bourgeois arts can or cannot capture. This opposing attitude towards the metaphor of the bourgeois was also shared by Russian Constructivists. It hints at a focal point in Vertov's manifestos and film projects, a resistance to fictionality that was inherited from the second axis—principle of movement. Films that present "social and physical universe" do not just show movement itself; instead, their authors "engage the moviegoer's 'dormant' consciousness"

[19] Cubo-Futurism here is a movement which received influence from French Cubism and Italian Futurism.

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by reconstructing space and time (Petrić, *Constructivism in Film* 1). By employing editing to reconstruct fragments and pieces of materials, filmmakers' aim to agitate mass consciousness paralleled the Constructivist art's social functions (Bordwell, "Idea of Montage" 13). On the whole, as scholars observe, there is a rendezvous for "camera, filmmakers, and the spectators" in Vertov's cinema (Mayne 174-75; Eades and Papazian 105). Where this indication ends looms the reciprocal relationship of cinema and contemporary art movements—Avant-garde, Cubo-Futurism, and Constructivism that contributed to the principle of working spatial and temporal fragmentations into a cure for the poisoned viewers of fictionality.

In "Dziga Vertov as a Theorist," Vlada Petrić argues that Vertov's montage strategy suggests an inspiration of Futurist poetry and Constructivist art. The Kinoks opt for fast cutting and "reduc[e] shot length from longer 'pieces' to one-frame shot" (Petrić, "Theorist" 35). In the fast-paced cinematic language, some scholars see Vertov as a Futurist. And the fragmentation and recombination of pieces in his work correspond to the process of producing a piece of Constructivist art. As Petrić elaborates:

> Vertov continuously points to the thematic classification of shots in groups and sub-groups (which Svilova separates in many boxes, each related to a topic).[20] By showing this repeatedly, he gives the viewer an insight into the very process of making a film . . . . In this context, *The Man with the Movie Camera* can be regarded as a self-referential structure which comments the nature of the cinematic medium, as well as the act of building a film from the "bricks," which are "life facts" selected and captured in reality, and later put together as "film-facts" in order to form a complete "film-thing." ("Theorist" 34)

This insight reveals in the Kinoks' editing a "[constructivism] concept of building a film in

[20] Dziga Vertov's wife, Elizaveta Svilova, who worked as editor of and appeared in *MWMC*, was also a member of the famed Kinoks circle.

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segments, i.e., from bits and [pieces]" (Petrić, "Theorist" 32-33). A twofold goal sits behind this montage strategy: first, to battle staged cinema as well as fictionality it implies; and second, to call for a documentary filmmaking method that requires careful selection of materials and not just arbitrary recording of them.

Unlike Petrić's direct affirmation, Yuri Tsivian calls into question Vertov's qualification as a Constructivist in his "Turning Objects, Toppled Pictures: Give and Take between Vertov's Films and Constructivist Art." Tsivian suggests the dubious bond between the two artistic groups. As Tsivian observes, Vertov himself contends in a letter to Khrisanf Khersonsky, a contemporary critic, that the latter was "mixing up [Kinoks] with Constructivists" and that Kinoks in fact deny "the existence of art" (Tsivian, "Turning Objects" 94; Vertov, "To Kh. Khersonsky" 135). Although misleading as it may seem, the refutation led Tsivian to dig into the unclear relationship of the Kinoks and Constructivists. Tsivian, to be sure, does not agree with this charge, from which he, instead, interpolates several characteristics shared by the two groups. The Kinoks and Russian Constructivists, to begin with, similarly pursued an "art movement in denial" ("Turning Objects" 94-95). This denial is two-sided. On the one hand, the denial was based on the communal rejection of other art forms. The artists of both groups appeared to be able to depict their self-portraits through a dialectical negation respectively. On the other hand, the denial is associated with their mutual dislike of fictionality. As Khersonsky responds, it is meaningless to divorce the Kinoks from art, for their manifestos "should be understood as an incitement to wage a struggle not with art as a whole, but with a certain current in art which is 'opium for the people'" (Khersonsky 136). To combat this poisonous artistic current, the Kinoks and Russian Constructivists both tested organizing mechanism in montage and in the production of Constructivist works respectively to the farthest extent in order to achieve a sense of defamiliarization (Tsivian, "Turning Objects" 96-97; 109). Finally, the two groups united as "techniques, ideas, and objects easily changed hands" (Tsivian, "Turning

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Objects" 95).

Apart from its dislike of fictionality, defamiliarization occupies an essential position in the social purposes of modern arts. Distinct from traditional arts, avant-garde, Cubo-Futurist, and Constructivist artworks reflects more incomprehensible and elusive styles. To be more specific, Constructivists create artistic pieces mainly out of lines and geometric shapes; Cubo-Futurists adopt fragments of abstract objects and rearrange movements of machines in a fast rhythm to constitute futuristic images. Some critics may take these stylish features as impractical and refer to them simply as "art for art's sake." Yet, there was never a moment for an art movement to come into being just for art's sake. These artistic scopes (avant-garde, Cubo-Futurism, and Constructivism) in fact retain a collective aim to plunge into reality as a devotional missionary intent on enlightening the public and completing an "art for life's sake" (Bordwell et al., *Film Art* 373). As a result, they attain social functions in their own right. Following this vein, I will briefly review two critics who recognize this worldly enlightenment Vertov engages in his cinema.

In her "From Magician to Epistemologist: Vertov's *The Man with a Movie Camera*," Annette Michelson sees *MWMC* as an epistemologist inventory.[21] This inspirational metaphor derives from her reading of the role of the editor. On the one hand, the editor, as a magician, plays a "wise and wicked game" to exhibit a fantastical show. On the other hand, the editor, as an epistemologist, reveals in the same show a discovery and explanation of how things come into being (Michelson, "Magician to Epistemologist" 103). To explore real-life phenomena, as Michelson suggests, the editor applies reverse motion as his or her analytical strategy. In Vertov's *Kinoglaz*, for instance, we can see the showing of the manufacturing process of a product. As the film continues, the bread returns to the bakery; the meat transforms into to a

[21] This article was originally published in *Artform* 10. 7 (1972): 60-72.

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bull; and the bull comes back to life from the underworld. The depicted and investigated subjects mainly engage the activities of labor. Here, the "reversal of time by inversion of action"—a strategy Vertov characterizes as "the negative of time"—serves as a pivotal element in what Vertov coins "Communist decoding" of the world (Michelson, "Magician to Epistemologist" 100, 104; Vertov, "Birth of Kino-Eye" 41; Vertov, "To the Kinoks" 50). For Michelson, the film editor travels through time and space, like a magician, and builds connections between footages so as to decode the social system, to understand life, and to record epistemologist notes.

Turvey considers the "centerless" perspective of *MWMC* in another article, "Vertov, the View from Nowhere, and the Expanding Circle." Distinguished from what the human eye can perceive, the alleged centerless view signifies cinematic effects constructed by film techniques—such as "fast, slow, and reverse motion; superimposition; split screen; [and] stop motion"—and prove to be impersonal and thus a "view from nowhere" (Turvey, "View from Nowhere" 85). Turvey borrows this concept of "centerless-ness" from Thomas Nagel to interpret *MWMC.* At the same time when he claims that the objectivity of this view is attained owing to the reorganizing mechanism of cinema and its mobility, Turvey also attributes the film's reflexivity to a detachment from subjectivity. One of the examples that entertain his idea would be the editing sequence where Svilova works on the footages which were shown previously. By reinserting the process of production in itself, *MWMC* de-mythicizes the spectacularity of cinema and renders the subjective point of view into an eccentrically omnipresent vision (Turvey, "View from Nowhere" 86-87). With this objective vision, the director aims to stretch "the viewer's consciousness not just epistemically but ethically" and to expand the circle of the "'agent-neutral' role" (Turvey, "View from Nowhere" 97, 99). The so-called "agent-neutral" quality stands for a role that is available for everyone, including the viewers of the film, to adopt. This circle spreads out through the working of the bird's eye view

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from no particular perspective together with the de-individualized characters in *MWMC.* Turvey's interpretation about de-individualized characters partly correspond to David Bordwell's observation on the making of characters in Soviet Montage films. *MWMC* coincides with most films from Montage movement which, as Bordwell explains, "downplay individual characters as central causal agents" who are demonstrated as "psychologically distinct individuals" (*Film History* 114). That is, instead of presenting an individual agent, a character from Soviet cinema "[represents] a general type or class" (Bordwell, *Film History* 114). However, what Turvey regards as the centerless perspective in *MWMC* detours from this "general type or class." Ultimately, this view from nowhere is mobilized to attain defamiliarization and thus to agitate the film audience.

The agitating capability of the film examined above, though interesting, is not the immediate concern of this thesis. Nor can Vertov's montage theory and *MWMC* be explained away by the condensed literature and historical review. The "grammar of cinematic language" that Petrić feels an urge to reveal still remained unresolved ("Difficult Years" 19). I argue for the need to probe into the information network that underlies the society Vertov lived and worked in. As this place was subject to "a system in which millions of people reconstruct those fragments, building personalized multimedia websites that are then made available to millions of others," it required to develop a pattern by which a subject could effectively receive and send out information (Feldman, "Man and Machine" 53). I maintain that this pattern shows digital character and proves to be a cybernetic logic of organization that can be detected in Vertov's montage theory and practice. I will unravel the mechanism of this digital character, cybernetic working, and their trajectory in the next chapter.

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Chapter Two

Digital Inscription and Cybernetic System

While Vertov scholars have shed important light on his work, they have not paid much attention to the conceptual implications of Vertov's theory and practice of film editing. For instance, while critics like Bertrand Sauzier and Malcolm Turvey note that *MWMC* reveals the film editor carrying out her cutting and splicing work, they have not considered this beyond the filmmaking framework. Or, while critics are aware that the Kinoks' editing suggests a "prototype of the net surfer downloading bits and pieces of fragmented information" that is known in the digital era, they bypass the resonant organizing mechanism (Feldman, "Man and Mahcine" 53). Or, when critics such as Vlada Petrić call attention to the influence of the Futurists and Constructivists—when critics note that without the selectivity of filmmakers, "there can be no appropriate 'organization' of a film"—they fail to push the argument further to see that the relationship between such indispensable selectivity and organization of captured reality may gesture toward a broader cultural logic ("Theorist" 33).

As mentioned above, by "prototype of net surfer," Feldman elicits a way to access and apply data, a cultural logic with which we are so familiar that sometimes we pay little attention to the suggestion and influence it might have. In this chapter, I extend his conceptualization to propose that a cybernetic pattern evidently connoted by kino-eye editing comes into play and furnishes an organizing mechanism. At the same time when my examination of the working of this mechanism helps to illuminate how Vertov responds to the sociopolitical and artistic climate, the underlying cybernetic pattern emerges, not only mapping out a line of thought from the cybernetic constellation, but also entailing an extended, interdisciplinary trajectory to consider film editing technique differently.

In this study, I argue that the film-editing task in effect involves a digitizing process, namely a process of filtering through and dividing "data"—or what we may call "reality." Here,

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I am not to begin from a nostalgic lament for the abdication of the analog in relation to the uprise of the digital, or postulate a possible reconciliation of the two.[22] The trope of the digital and the analog and their latent relation might come along in the chapter where I trace different theorized processes of digitization and cybernetic networking, but the significance of their relationship, be it opposition or affinity, subsides as I move on to my analysis of Vertov's cybernetic organization. In what follows, I will review how scholars trace the digital that underlies human life and how this logic fortifies a larger technological and cultural pattern called cybernetics. Finally, by identifying this pattern, I will extend the cybernetic logic to an affirmative aspect that can be discerned in Vertov's montage theory and practice.

Separate Continuity: Departing from the Digital

The underlined technological and cultural pattern sprouts from a digitizing mechanism that works in Vertov's film theory and *MWMC* as a way to treat the collected data-footage: it is a cultural logic that had influenced artists like Vertov long before the age of the digital computer. Lev Manovich, in his *The Language of New Media*, defines this logic as a two-step process of dealing with data: sampling and quantification. According to Manovich, data do not simply signify the coded material in computerization; they also refer to the analog or continuous raw materials (*Language* 28).[23] The difference between the continuous and the discrete lies in the fact that the analog ones have to be sampled, and that each sample has to be quantified into one or zero in order to be considered in the digital realm (*Language* 28). Likewise, in the cinematic realm, we can say that the continuity of reality is to be separated by

[22] Alexander R. Galloway and Bernard Dionysius Geoghegan exchange their views on the digital and the analog in a compiled e-mail conversation. Galloway sees digitality as the "stable and well-defined criteria" inherent of arithmetic, whereupon Geoghegan responds with his observation of the blurring distinction between the two ("Shaky Distinctions").

[23] Deriving from the Latin word *dāre* (to give), *data,* the plural form of the neuter perfect participle *datum*, literally denotes "something that has been given" or "the given things." In this etymological vein, the given things, discrete or continuous, can be designated as data.

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individual film frames. Although not exactly quantified as ones and zeros, data captured from reality are transformed into readable still frames by the movie cameras so as to suit the projecting apparatuses for playback. Such a logic of data transformation is not confined merely to the field of computer engineering. Digitization, as shown in Manovich's depiction of the two-step process, can be understood more broadly.

For Manovich, the digitizing of data preconditions a convenient locality for what he regards as new media. As Feldman clarifies, the digital form—or in Feldman's term, "the newness of the New Media"—entails "an ability to incorporate all previous media in a single, unified manner, the ones and zeros of digital code" ("Vertov after Manovich" 45). In other words, digitality promises us a land of conformity, an orderly interface to access, store, use, and interact with data. This precondition of regularity also gives shape to the principles with which Manovich describes new media: numeric representation, modularity, automation, variability, and transcoding (20). Though with these principles in mind when conceptualizing what is involved in new media, Manovich does not mandate them as the "particular qualities of the medium that should be understood as absolutely new" or introduce us to a set of revolutionizing technologies that defines the new; instead, as Galloway summarizes in his "What Is New Media?," Manovich approaches a historical continuity of media, "[insisting] that new media are essentially cinematic, [and] suggesting that we must look not to the new, but backward to various media that have come before" ("New Media" 382-83). In short, Manovich sees cinema—a medium that has emerged more than a century ago—as the paradigm that bears out the principles of new media and best accounts for the latent continuity in the development of media technologies. I agree with Manovich on the traceability between media that happen in different timeframes, but this chapter does not aim to delve into the legitimacy of the digital—or, to be more encompassing, the legitimacy of platforms such as database and interface the digital brings along—as a compulsory criterion in assessing new media. My

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argument also parts with Manovich's in that this digital precondition for new media does not necessarily pave the way for reconstructing the continuity in media history.

Digital theorist Alexander Galloway, in his *Laruelle: Against the Digital*, puts forth a provocative understanding of digitality for the history of thought. On the face of it, his account of digitality corresponds to that of Manovich in terms of the captured data breaking up into digital ones. Galloway, however, departs from Manovich in contending that all attempts at "distinction," philosophical or conceptual, should be considered a digital way of thinking (*Laruelle* xxxiii). The digital, as Galloway defines it, denotes "the capacity to divide things and make distinction between them" and points to a specific mechanism of "the one dividing in two" as opposed to that of the analog as "the two coming together as one" (*Laruelle* xxix). What is debunked or being "against"—as the title of the book suggests—is not the digital in technological sense or in Manovich's suggested system for new media. In the digitizing process here, the generation of distinction, on a metaphysical level, incorporates the elimination of immanence. In opposition to this formality engendered by the digital, the "two-coming-together-as-one" quality of the analog connotes that it indiscriminately encloses "heterogenous elements into identity, producing a relation of nondistinction" (*Laruelle* xxix). Galloway's contention against the digital is inspired by the "non-philosophy" of the French philosopher François Laruelle. Laruelle argues that "[t]he discrete regularly claims victory, even as the continuous continues to survive. . . . Non-philosophy is, among other things, a way to register this survival without pretending that one side will crush the other" (qtd. in *Laruelle* xxxiv). Taken together, what the French advocates is a way of thinking that differs from the traditional way to acquire knowledge, a method that relies on distinction. For François Laruelle and in this eponymous book, the general mechanism of digitization is about a coding system that may trigger an anxiety toward the threat of dilution of subjectivity. Departing from this Galloway's formulation of Western thought and reflection on philosophical tradition, this thesis

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underscores a distinction that does not always take the form of menace to subdue the heterogeneous but that inversely opens up possibilities to resist, or at least to elude, the seemingly inexorable capture of the homogeneous. Mark B. N. Hansen's assertion of "digital inscription of time" instantiates one of the possibilities.

In his article "Living (with) Technological Time: From Media Surrogacy to Distributed Cognition," Hansen proposes a particular "before-after structure" as digitality of time (294). Deriving this "digital gift of time" from Aristotle's definition of time "as 'the number of movement according to the before and after," Hansen manages to move forward from some philosophical formulations of how we perceive time, that is, through the conventional process of temporalization (294). In this process, a surrogate medium, such as Edmund Husserl's temporal objects and Bernard Stiegler's cinematic temporal objects, renders time and reconstructs a sense of temporal flux.[24] For Hansen, Husserlian and Stiegler's temporal objects, however, prove to be problematic, for they are by definition syntheses that reduce time's heterogeneity to serve human subjects. Distinct from Husserl and Stiegler, Hansen suggests a digital inscription of time as a different process of temporalization. Although digital inscription, similar to the temporalizing processes that came before and still remaining an attempt to perceive the boundless and elusive time, digital inscription is a temporalization which does not conceptualize the nature of time "in a restrictive form, nor subordinate it to the ends of any concrete experience. And, in particular, digital inscription does not bind time to the form of *human* time-consciousness, to the flux constitutive of *lived* experience" (302; emphasis in orig.). Hansen acknowledges that digital inscription of time incorporates a minimal before-

[24] Hansen explains the concept of temporal object through Edmund Husserl and Bernard Stiegler's formulations. Both philosophers respectively propose a temporal object. Husserl asserts that melody exemplifies the model of a temporal object as a melody is "capable of mirroring the flux of time that furnishes the content or 'manifold' of consciousness itself, and thus a vehicle for clarifying the structure of time-consciousness itself" (Hansen 299-300). Following Husserl's definition of temporal object, Stiegler argues for cinema as the modern temporal object which parallels with the "process of selection" of human consciousness (Hansen 300). In other words, Husserl believes that through observing a temporal object—listening to a melody—one can perceive temporal current in the cumulation of notes, while for Stiegler, cinematic editing operates in the same selective process by which human consciousness and memory deal with the outside world.

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after structure, an exteriorization of the heterogeneity of time. Digital inscriptions are themselves "larger processes of temporalization" that "[support] the actual infrastructural activity of our world" (Hansen 304-05).

While rejecting Husserlian and Stiegler's temporal objects, Hansen reminds us the inevitability of temporalization in our understanding of time. It is through temporalization of technics that we are enabled to experience time, and accordingly, time, Hansen claims, "only comes to exist through the myriad temporalizations" (297, 299). Proclaiming the "larger temporalizations" digital inscription of time brings us, Hansen does not point to an encompassing temporality that comes out with technological innovations alone. This digitally engraved time is not something "at the extremely fine-grained, sub-perceptual, computational scale" capable to "[capture] time in its basic structure" (297). To elucidate this argument, Hansen provides an explanation on the relations between time, temporalizations, and technics:

> The "essential" correlation between time and technics . . . finds exemplary expression in the argument that there is no time-in-itself, that there is time only through concrete processes of temporalization . . . [Time] is only accessible, and indeed only exists, as the "*après-coup*" of a concrete temporalization. (299; emphasis in orig.)

Deep down, all we can attain is temporalization, not an absolutely direct and immediate time, since such time is "by definition beyond the grasp of media and aesthesis" (Hansen 297).[25] In short, time in its nature—or in Hansen's term, "time-in-itself"—is in effect beyond our perception, but we can still part ways with the determinate temporalizations of temporal objects and approach the sense of "digital gift of time" through other temporalizing processes or, to be more concise, through what Hansen calls "digital inscription of time," the infrastructure of our

[25] In "Living (with) Technological Time," Hansen sometimes uses a coined term "artifactualization" to refer to temporalizations of digital inscriptions of time.

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experiences today. And as the title of Hansen's article shows, now has come the time where our perception of time furnished by surrogate temporal objects recedes to welcome the arrival of digitally distributed cognition.

To explain the concept digital distribution of cognition, Hansen invokes several artistic temporalizations that materialize the fine-grained before-after structure, the intrinsic structure of time. German artist Wolfgang Staehle is among of the artists demonstrated by Hansen to have achieved digital mediation of time. For his project *Empire 24/7*, Staehle installed a digital photographic camera to take photographs of Empire State Building which were then sent back to the gallery for exhibition, which, as the title of the work suggests, persisted nonstop from 1999 to 2004 (Hansen 295-96).[26] Hansen especially indicates Staehle's intentional adoption of "the technical obsolescence" of an outdated device which creates "a delay of 20 seconds" to emphasize that such technical artifactualization is not necessarily limited to work at a genuine real-time basis (298). Though an accessible temporalization to human perception, *Empire 24/7* re-enacts the constantly dividing process of before and after in the fine-grained structure of time. Moreover, exteriorization of time's minimal structure, Hansen claims, is not restricted to digital technologies. Chinese artist Song Dong, for instance, repeatedly uses water to keep a diary on a stone, which constitutes his performance art *Writing Diary with Water* (*The Allure of Matter*). With time passing, we see liquids turn into vapor, carrying away the artist's documentation of life and personal reflections lodged by words (Hansen 311). Song effectively incorporates both noticeable fade-out of human intervention—watery traces that gradually evaporate—and imperceptible transformation of the stone so as to accomplish an aestheticization of time, to put more succinctly, time's before-after structure. In *Writing Diary with Water*, this dividing structure of before-after is embodied in a temporalization that does

[26] More exactly, Staehle set up the camera at Thing Building to take a picture of Empire State Building every four seconds which were later sent to and exhibited in the gallery of ZKM (Zentrum für Kunst und Medien) based in Karlsruhe, Germany (*V2_Lab for the Unstable Media*).

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not comply with human time-consciousness but is "distributed across the divide separating human and natural worlds" (Hansen 311). Taken together, Wolfgang Staehle and Song Dong (and other illustrations in the article) share an "investment in the power of repetition as a structure of before and after that is indifferent to the phenomenological-cosmological divide" (313). Hansen, on the one hand, sees a necessary minimal before-after structure in such aestheticization as a key for artifactualization of time's heterogeneity (305-06). On the other hand, digital inscription of time integrates different temporalizations that form digitally distributed cognition. Though a structure constituted by myriads of divisions of before and after, Hansen's notion on "digital gift of time," far from aligning with segregation which Laruelle and Galloway hold against, summarizes digitization as a substrate logic upon which thinkers fabricate a new way to understand the world.

In this present study, I take as a departure Manovich's and Hansen's formulations and approach a new method for analyzing Dziga Vertov's film. By the title of this section, I regard digitality—both digitizing process and what Hansen terms as "digital gift of time"—as an infrastructural element Vertov's *Man with a Movie Camera*. On the material level, film frames promise an intrinsic digital nature embedded in cinema. With two polarizing words, *separate* and *continuity*, juxtaposed together, the title points to a cinematic trick achieved by persistence of vision. Filmmakers capture life caught unawares and record the continuity of the real world in separate film frames. Though separate, these film frames offer a reorganizable reality to the audience with a certain projecting speed. On the filmmaking level, implied by the proposition of "separate continuity" is the editing process. Film editing per se is a digitizing process. The editor makes such decisions as whether a cut is taken or not, or whether a shot is reserved or not. This yes/no binary mechanism *is* a digital logic. Finally, a third facet emerges as the dividing logic of digitality reframed by Hansen as "minimal before-after structure" of time. It is this dividing logic of digitality that differs Vertov from other films of Montage Movement

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and filmmakers in general. Vertov paves a way leading us to aestheticization which shows time's before-after structure, a digitizing structure that, as the projects of Song and Staehle show, does not attempt an accordance with human consciousness but provide new lens for us to observe time and the world. The multifold digital logic pursued above, I will argue in the following chapter, furnishes Vertov's film theory and practice.

In exteriorizing the before-after structure and to understand the digital character of time, the artifactualization or aestheticization of time through digital inscription twins the way data and time is treated in cybernetic experiments. The digitizing process and digital inscription of time serve as a premise for the field of cybernetics. In his *Cybernetics, or, Control and Communication in the Animal and the Machine*, American cybernetic scientist Norbert Wiener defines the discipline through the example of a missile project. As Wiener shows us, the cybernetic experiments share a common goal: "to predict the future of a curve is to carry out a certain operation on its past" (*Cybernetics* 6). The gist of it is to collect the seemingly continuous factors for further analysis as statistical data and to constantly renew the collection of data in order to reckon with the passing (the before-after structure) of time. Those analyzed or discrete data are used to develop a model in an attempt to predict the future of the supposedly smooth trajectory curve, while the constantly renewed collection of data results in adjustments in the model and thus assure its validity. Likewise, the filmmaker collects footages over a certain period of time and, through reorganizing these collected "data" and ultimately attempts at a most apposite model, a pattern with which to effectively speak to his audience, or to Vertov's political intent, his fellow countrymen and women. To conclude, only in acknowledging this rudimentary digitizing process in filmmaking and in the film itself can the cybernetic logic be reasonably analyzed. In the following section, I will briefly review Wiener's inventive observations in technological and scientific experiments, and track some

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identifying features in classical cybernetics and its parallels that operate in the cultural and social spheres.

Separate Continuity: Toward the Cybernetic Logic

While recognizing the same dividing mechanism in cybernetics, Wiener emphasizes the influence of time in cybernetic models. As he explains the forecast of the missile project, he points out that "by the time the first shell has burst, other things are not equal," stressing that the report on the variables accomplishes the project (Wiener, *Cybernetics* 5). This means that missile scientists have to keep making adjustment for the latest, exact calculation in cybernetic prediction. In a similar vein, cybernetics facilitates many fields by factoring in the component of time. In the case of a lost limb, for instance, the loss of a body part suggests not only the very loss of "passive support of the missing segment" but also the absence of an "adequate report" (Wiener, *Cybernetics* 26). Both aspects are essential in making an astute movement. Although a prosthesis physically supports the rest of the body, the problem of limb loss remains unsolved, for the loss also includes an absent report on each movement and on the location of the missing limb or of the prosthesis. This means that lack of timely feedback report unavoidably entails the impossibility of achieving perfect movements. As Wiener asserts, "we are directed in time, and our relation to the future is different from our relation to the past" (*Cybernetics* 33). To recognize time as a variant and the report on that variant thus proves to be the first step in executing a functional cybernetic experiment. This fundamental first step leads one off to access to data and thus to make the net surfer's move of "downloading bits and pieces of fragmented information" (Feldman, "Man and Machine" 53). Breaking down time series (divide up before and after) to take into account time as a factor works as an essential process to develop a cybernetic project and to ensure its efficacy.

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Considering the variation distributed in time, Wiener reaffirms that the digitizing process undergirds the organization and reorganization of collected information. According to Wiener, on the one hand, communication technologies function only when "the messages they transmit are continually varied in a manner not completely determined by their past"; on the other hand, these communication technologies "can be designed effectively only if the variation of these messages conforms to some sort of statistical regularity" (*Cybernetics* 10). To find out this statistical regularity—a crucial element in the forecast of the future in a cybernetic experiment—the cyberneticists need a formal and unified way to record the data collected from the past so as to decipher and calculate them. In this light, there are two other aspects in the working of cybernetics for us to consider. First, if the continually varying messages have to agree to a certain "statistical regularity" in order to work out the statistical distribution of the variation, a cyberneticist is obliged to read the messages digitally when he or she collects information. Moreover, to collate data into a resolute statistical distribution relies on the feedback system. As Wiener describes it, "[t]he optimum design of this operator and of the apparatus [the cybernetic device of prediction] depends on the statistical nature of the message and the noise" (*Cybernetics* 6). This feedback loop, functioning with the digitizing process, reinforces the liability of the cybernetic apparatus. All in all, the breaking up (sampling) of data and data's entering the digital sphere (quantification) constitutes the essential condition for conducting cybernetic experiments. In other words, the cybernetic logic recognizes the before-after structure of time and treats continuous and varying data digitally in the first place so as to carry on its predicting tasks.

In view of the feedback report made according to temporal changes, Wiener, along with his colleagues, comes up with a term for "the entire field of control and communication theory" (*Cybernetics* 11). Forging the term from the Greek word "[κ]υβερνήτης" (or steersman), the cybernetic scientist professes:

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> In choosing this term we wish to recognize that the first significant paper on feedback mechanisms is an article on governors . . . and that *governor* is derived from a Latin corruption of "[κ]υβερνήτης." We also wish to refer to the fact that the steering engines of a ship are indeed one of the earliest and best-developed forms of feedback mechanisms. (*Cybernetics* 11-12)

The etymological proposition of "steering" and "governing" suggests that the involvement of organization and reorganization of collected information is imperative in cybernetic model development. The organization here implies a control system that not only completes a cybernetic design but also helps in accomplishing the task of a cybernetic experiment. As Wiener concludes, the utmost purpose of cybernetic working—to "[predict] the future," as in a missile shooting project, to find "a way that missile and target may come together in space and at some time in the future"—is achieved by the "control apparatus" (*Cybernetics* 5). In my study, I argue that this prospect of cybernetics can be detected in Vertov's montage as well. That it, the mechanism of footage reorganization—film montage—can be considered a control apparatus.

On the whole, classical cybernetics deals with information. As Wiener puts it, the "time series" (variation of time) and "the apparatus" (timely adjusting mechanism) in effect "deal with the recording, preservation, transmission, and use of information" (*Cybernetics* 61). This process of information rendition outstands and remains the core of cybernetics, and the transmitted information exerts an influence greater than it seems to have: for Wiener, "where a man's word goes, and where his power of perception goes, to that point his control and in a sense his physical existence is extended" (*Human Use* 97). This observation conceptualizes the messages delivered by a human subject as an embodiment of "his senses and his capabilities of action." In view of this, Wiener vouches for the importance of an organizational process to be scaled to effectively maneuver data and to transport information (*Human Use* 98).

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In his two foundational books on research of cybernetics, Wiener outlines these trajectories and builds the genealogy of cybernetics as an intersectional field for science and humanity subjects—to name a few, information studies, missile project, neurology, and communication technology. The cybernetic scientist, however, overlooks their potentiality and fails to infer their shifts to cultural and epistemic fields while recognizing these identifying markers and important mechanisms in cybernetic experiments.[27] The organizational processing of information in Wiener's cybernetics, I argue, has its counterpart in film. That is to say, the recording and preservation of continuous and varying data of reality, the transmission of messages on film strips, and director's and film editor's use of footages altogether combine to form a process that resembles the cybernetic working. Through the cinematic way of information processing, filmmakers such as Dziga Vertov devise what they think of as the most suitable itinerary, a cybernetic model for their art production through which their films can be best appeal to the audience and interact with the overall intellectual and social community. To probe into the case of Vertov and *MWMC*, I take as the point of departure the shifts of cybernetic logic and its relationships with the social system and posthuman condition respectively conceived by Seb Franklin and N. Katherine Hayles.

Cybernetic System and Beyond

The implication of control underlying the cybernetic model serves as the starting point in Seb Franklin's *Control: Digitality as Cultural Logic*, where he understands digitality as a cultural rationality. Franklin foregrounds a digitizing process from the homogenization of different kinds of labor. As what Karl Marx terms as the use-value of a commodity is made abstract, the abstraction entails the eradication of the personal identity of a worker and the

[27] Cybernetics may elude its homeland of science and technologies, and thus be defined differently. Galloway, for instance, extends this cybernetic mechanism to a cybernetic network that "refers to any kind of regulatory system . . . of control and communication" ("Cybernetic Hypothesis" 112-13).

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consequent situation of different types of labor being reduced to "human labor in the abstract" (10). The reduction in social and cultural heterogeneity might incite an existential risk, namely the elimination of subjectivity as we have seen in Galloway's *Laruelle*. This potential crisis deeply concerns Franklin. He explicates that "[t]he processes through which labor is captured, broken down into discrete actions and units of time, and valorized" suggest such control logic in a capitalist society: "[T]he dividual is the subject digitized," and "control is the episteme of the dividual" (9). Here, this abstraction of concrete labor, that is, the digitization undergirding the control of capital, is a prerequisite for the economic model (a dangerous embodiment of cybernetic logic) to maximize profit.

Franklin affirms that "conceptual frames" such as cybernetics that emerged in sciences at first "can slip into nominally unrelated fields of social and political organization" (40). In the case of digital and cybernetic logics, their slippage into the collective social system settles as the foundation for the control of capital. For instance, Franklin defines the principles of standardization and of division of work applied by Taylorism and Fordism to make use of man-power effectively as "fundamentally digital process" (9). In addition, similar to the Taylorist and Fordist principles as well as the threatening homogenization of labor mentioned above, the neoliberal economic system upholds the control society by "the abstraction and perversion of the 'fact' of social life" (53). Taken together, the digital and cybernetic logics that emerged from scientific and technological fields in effect prove to be "comparable to the way in which capital can view human life only as labor (and thus interchangeable with machines, water, or air)" (52). The conceptualized digitality and cybernetics in Franklin's examples serve the same purpose in different times, that is, the optimization of the management of man power in order to achieve the maximum of revenue. On the whole, "*cybernetic logic*" in socioeconomic deployment "account[s] for a range of practices and methodologies that render the world legible through processes of capture, digitization, modeling, and prediction" (Franklin 43;

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emphasis in orig.). These processes, I argue, are not so much limited to the control of capital or the governing of classical cybernetic experiments as connected to different cultural and sociopolitical configurations of cybernetics.

Contrary to the problematic situation that, as what concerns Franklin, digitality and cybernetic logics might bring us, N. Katherine Hayles approvingly envisions a productive pattern characterized by cybernetics. In her *How We Became Posthuman*, Hayles traces the lineage of cybernetic history from which she delineates a posthuman condition. This posthuman condition here does not mean a superficial hybridity of human subjects and machines, but rather denotes "an amalgam, a collection of heterogeneous components, a material-informational entity" (Hayles 3). Although not pointing to the fantasy of cyborg hybridity itself, this "new model of subjectivity" is deduced from the construction of cyborg, through which the boundary that separates human subjects and intellectual machines become blurry (Hayles 6). The Turing's test serves as the very first example in *How We Became Posthuman*. In this test, a human agent sits in front of a computer that displays messages sent from two separate entities—one being another human subject, the other an intelligent machine—and, according to these transmitted messages, the test taker is asked to differentiate one from the other. The failure of the tester suggests that "machine can think" as it is capable of composing a piece of organized information that is identical to a human entity (Hayles xi). Also, the design of this experiment attests that the disembodiment of information is requisite in the human world surrounded by artificial intelligence technologies (Hayles xi). In another example of "constituting identity through authorization codes," Hayles boldly announces a situation where "we become the codes we punch" (46). In this case, an autonomous agent who holds the correct code, by keying in the authorization password, can access the original code owner's asset, represent the owner, or even steal his or her identity. Borrowing from these posthuman conditions, Hayles privileges a particular pattern, a conceptualization of the fact

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that "*information lost its body*" (Hayles 2; emphasis in orig.). In this light, Hayles echoes Wiener's appraisal of information, reaffirming the importance of information transmission. This is not to suggest that Hayles proposes this "new model of subjectivity" to mean the obligatory erasure of the liberal humanist subjectivity, nor does the model per se negate or is superior to any possible embodiment in reality (7). Instead, Hayles acknowledges this bodiless pattern as a dominant logic that looms in our life and functions to give rise to the embodied posthuman conditions in human society as shown in the aforementioned examples.

Denouncing the idea that embodiment has vanished, Hayles contends that the bodiless pattern involves a cybernetic mechanism that further braces up the subjectivity of the posthuman intellectual. Hayles explains this posthuman subjectivity through the following performances of selfhood which destabilizes the liberal humanist subjectivity derived from enlightenment:

> I now find myself saying things like, "Well, my sleep agent wants to rest, but my food agent says I should go to the store." Each person who thinks this way begins to envision herself or himself as a posthuman collectivity, an "I" transformed into the "we" of autonomous agents operating together to make a self. The infectious power of this way of thinking gives "we" a performative dimension. (6)

Here, Hayles defines a posthuman selfhood by breaking down the entirety of a humanist subject into multiple "autonomous agents" that cooperate to function as a subject entity. Human body is no longer so much incomparable in this posthuman context as its primitive character may suggest. The inborn body, instead, works as the first set of prosthesis "we all learn to manipulate" (Hayles 3). Any replacement of extension of a body part with other prosthesis is considered a property succeeding or assisting the "original prosthesis," whereas the collective subjectivity always steps in to reorganize the overall operation of these prostheses. While she

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envisions such a cybernetic posthuman, Hayles does not reject the "agency and choice" that is connected to a human intellectual, since the humanist free will does not vanish as the liberal subject disintegrates into autonomous agents, but rather is inherited and reconfigured by these agents (5). As shown in Hayles' words, the performative power of this posthuman entity relies on the messages sent from autonomous agents—the collective "we." In fact, the biological and nervous systems of a human subject count on a feedback loop which beams up information, including orders sent from the autonomous agents and the reports received from their operation, so as to make the follow-up adjustments. As the feedback loop brings forth such qualities characteristic of cybernetics as "reflexivity and self-referentiality," it also promises a system that holds things together and functions appropriately (Galloway, "Cybernetic Hypothesis" 114). Moreover, as Hayles suggests, the feedback loop provides a possible breakthrough from within the systemic control as it "can flow not only *within* the subject but also *between* the subject and the environment" (Hayles 2; emphasis in orig.). Thus, with this feedback loop and the floating information it circulates, boundaries of different entities are fully challenged. I take as a point of departure Hayles' assertion that "[the] objectivist view sees information flowing from the system to the observer, but feedback can also loop *through* the observers, drawing them in to become part of the system being observed" (9; emphasis in orig.). In this light, I argue for a cybernetic logic in Vertov's film theory and practice that comprises a feedback loop that aims to respond to its environment, breach the control system, and loop through its onlookers.

Conclusion

So far, we have witnessed that some media scholars have broadened the conception of digitality and cybernetics in thought-provoking ways. The digital working appears in both scientific and cultural domains, from computerization of signals to philosophical way of

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reasoning. Sometimes, digitality are seen as a temporal character, and this natural structure of time can be reconstructed through the process of exteriorization. At other times, the digitizing process and cybernetic model combine to register a scaffold for social control—as pursued in Franklin's attempt to raise our awareness of potential threats derived from digitality. Or, cybernetics reincarnates as a pattern that describes a posthuman condition we have entered—as portrayed in Hayle's formulation of a subjective collective. Illuminating as these arguments are, they prove to be skeptical and critical in entertaining the working of the digital and cybernetic logic.

In this study, I argue that we can understand this control logic suggested by digitalization and cybernetics in an affirmative sense. By control, I do not propose that Vertov's kino-eye method insinuates an organizational logic so overwhelming and oppressing that it forms an inescapable closed system as cul-de-sac. Nor do I consider the cybernetic process of adapting of feedback report and the system networking make Vertov any less revolutionary. Instead, I follow what Hansen terms as digital inscription of time and Hayles' conceptualization of feedback loop to argue for a digital logic that brings back the heterogeneity of time and for a cybernetic logic that facilitates the information network Vertov, the collaborating Kinoks, and their contemporaries promptly adapted to and responded to. I believe that Vertov is aware of the underlying structure of time and attempts his own kino-eye digital inscription—*MWMC* as an exemplar for the technical time that refuses to meet the threshold of human time-consciousness. Recognizing time's before-after structure, one hence secures a cybernetic experiment to compose message so as respond to stimuli received from others. On the whole, every single component of the social system is an active agent "endowed [with] the power of local decision according to the variables and function within its own local scope" (Galloway, "Cybernetic Hypothesis" 114). The organizing mechanism of film editing in Vertov's film projects, or that in constructivist practice in art for instance, can be read as different

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embodiments (borrowing Hayles' diction here) of cybernetic logic in the cultural field. Through the case of Vertov, this thesis aims to expand the field of cybernetic studies and, furthermore, to see how the cybernetic logic exerts an influence in cinema.

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Chapter Three

Digital and Cybernetic Logics in Vertov's Kino-Eye Theory and *Man with a Movie Camera*

In this chapter, I argue that what Vertov conceptualizes as "kino-eye" works as a filmmaking method that forms digital inscription of time and manifests a cybernetic logic. By "digital" and "cybernetic," I mean to extend the two concepts derived from branches of science—computer science and cybernetics, respectively—into certain patterns that facilitate our understanding of filmmaking. In particular, this thesis contends that Vertov's kino-eye theory and practice exemplify the fact that there are such digital and cybernetic logics operating culturally. In this chapter, I will first briefly give an overview of Vertov's kino-eye theory. Next, I will discuss how the kino-eye method reflects a digitizing mechanism that resonates with Mark B. N. Hansen's concept of digital inscription of time and show examples from *MWMC*. Next, this chapter will discuss how the working of kino-eye theory echoes that of a cybernetic experiment. To do so, I will examine how Vertov's kino-eye method and the making of *MWMC* are configured by essential elements in cybernetics, that is, process of data collection and organization, the goal to achieve efficiency, and an information feedback loop. By assuming that the kino-eye method follows a cybernetic logic, I am not trying to suggest that there is always an approachable perfect state based on technologies or organizational skills. Nor do I attempt to imply otherwise when I focus on the digital and cybernetic pattern and downplay the significance of the attempt for prediction or efficiency. Ultimately, this thesis aims to proposes digital and cybernetic patterns as cultural logics in an affirmative sense.

Kino-Eye as a Digital Inscriber

A look at how Dziga Vertov comes to call fictionality into question may shed some light on the filmmaker's hostile attitude toward "art." Sometimes Vertov points the finger at

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an overarching "art"; at other times, he relegates some particular art forms such as literature, theater, and "acted cinema." But this reputed "art" that Vertov refers to in a spiteful tone does not mean art in general but a certain "fictionality" shared by several forms of art.[28] For Vertov, stage plays and novels tell fictional stories, stories that are produced according to scripts or plot outlines and then brought to stage and paper. In addition, these kinds of art are prone to represent the taste of the bourgeois class, the social class Vertov stands against. Following a "communist program," Vertov strives to "open eyes of the masses to the connection . . . between the social and visual phenomena interpreted by camera" through his cinematic experiments (Vertov, "Known as *Kinoglaz*" 34-35). Vertov's adamant hostility towards fictionality, as Masha Enzensberger concludes, tends to account for the protest "of a . . . communist artist against the domination of bourgeois melodrama and American Westerns and thrillers on the Soviet screen" in many reviews of Soviet film scholars (93). In this vein, Vertov condemns this "fictionality" for paralyzing the audience's perception.

In spite of his dislike of "fictionality," Vertov's films and his kino-eye methodstill serve for the sake of art. As the contemporary critic Khrisanf Khersonsky asserts, it would be futile to "dissociate the [Kinoks] from" the rank of artists, for "[their] 'anti-art' slogan should be understood as an incitement to wage a struggle not with art as a whole, but with a certain current in art which is 'opium for the people'" (Khersonsky 136).[29] Vertov, speaking for the Kinoks community, also criticizes genre films such as "romance, theatrical films" as harmful in his paramount manifesto "We: Variant of a Manifesto" (7). In other words, film that came out as a new form of art at that time does not naturally turn out to be the exact remedy for paralysis caused by aforementioned traditional forms. In effect, that which Vertov regards as problematic

[28] See the following for more about the director's thought on fictionality: Vertov, "We" 7; Vertov, "Kinoks: A Revolution" 11, 21; Vertov, "Known as *Kinoglaz*" 35; Vertov, "Nonacted Cinema" 37; Vertov, "On *Kinopravda*" 42; Vertov, "Artistic Drama" 48.

[29] The leading figures of the Kinoks circle are often suggested to be Vertov himself, Svilova, his coordinate editor and wife, and Mikhail Kaufman, the cameraman and hero in *MWMC* (Michelson, *Kino-Eye* 12).

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in his showdown never points to any specific artistic form or tradition, as he would soften his aversion in his 1923 manifesto "Kinoks: A Revolution":

> We do not object to cinema's undermining of literature and the theater; we wholly approve of the use of cinema in every branch of knowledge, but we define these functions as accessory, as secondary offshots of cinema. (Vertov, 14)

Taken together, for Vertov, what comes as "the primary" (as opposed to the alleged "secondary") is neither a blindly radical impulse to devalue "art"—for it is not art per se that bothers him so much but a poisoning fictionality that works as capitalist control—nor an obligation to promote cinema as an absolute form. That is, cinema, or any other form of art, by itself is not necessarily disposed to offer visual "opium" or to blow off the mist of fictionality. It is only through his "kino-eye" method can cinema transform into an optical solution in such a way that "[hundreds] of thousands, millions of citizens . . . sharpen their senses before the shining screen of [Kino-eye] Cinema" (Vertov, "Kinoks: A Revolution" 11). Vertov's famous kino-eye theory was created due to concern for the potential influence of fiction films over the public: should harmful influences, if any, caused by fictionality need to be tackled with, it must be dealt with through kino-eye (Bordwell, "Idea of Montage"14).

At one point, kino-eye suggests the lens of a movie camera—the camera eye. Vertov provokingly proclaims in "Kinoks: A Revolution" the need to use the movie camera, a device "more perfect than the human eye," to attain advanced perception (15).[30] Compared with the camera eye, human eyes prove to be scanted in marking movements. Quick movements, such as a galloping horse and a tractor used to plow a field, to take Vertov's examples, are prone to look like chaotic "visual phenomena that fill space" to human perception (Vertov, "Kinoks: A

[30] Corresponding to Vertov's faith in the perceptibility of the movie camera, camera lens etymologically suggests objectivity just as Объектив, the Russian word for camera lens, derived from French objectif and Latin objectivus.

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Revolution" 15). The fast-moving objects would pass in front of our imperfect eyes without waiting for the human observer to grasp their actions, whereas with the aid of a movie camera, the observations are improved with details. The filmed motions of a horse's gallop and a tractor's plowing can be replayed for reexamination as the slowed-down projection allows the viewer to see clearly the fast, subtle movements. Thereby, the movie camera serves as a prosthesis that amplifies our visual perception and helps us to see in a more efficient way. Vertov sees the invention of the movie camera as a prepending innovation as the microscope and telescope, antecedent technologies that have overcome the human's deficient perceptional ability and immobility and broadened the perceptibility of diminutives and distant things:

> [kino-eye] is understood as "that which the eye doesn't see,"
>
> as the microscope and telescope of time,
>
> as the negative of time,
>
> as the possibility of seeing without limits and distances,
>
> . . . . . .
>
> as "life caught unawares." ("Birth of Kino-Eye" 41)

To access what was once incomprehensible in motion and reveal that which lies under the elusive phenomena remains Vertov's cinematic ideal throughout his career and is the background of the director's aversion to arts associated with fictionality. Combating films that feed to the audience the alleged poisonous illusion, kino-eye is entrusted with what Vertov takes as the revolutionary task of cinema—the obligation to reveal.

Rather than only rely on the perceptional and documentary capacity of the filming machine, during the battle against fictionality, kino-eye also assumes a set of techniques that can reveal the contours of life. In "Kinoks: A Revolution," Vertov construes the ability of kino-eye as "omnipresent" and "challenging human eye's visual representation of the world and offering them 'I see' [montage]" which are made possible through kino-editor's

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organization (20-21). Kino-eye arms a filmmaker with filmmaking techniques required to produce a film that does not abide by the working of human consciousness but instead provides a new possibility to experience the world. What makes kino-eye revolutionary is not merely the objectivity and documentary power of the camera eye. Rather, kino-eye is thus extended from mere recording and playback to "cinema-analysis" and "the 'theory of intervals'" (Vertov, "Birth of Kino-Eye" 41). Vertov explains that "kino-eye calls for construction of the film-object upon 'intervals,' that is, upon the movement between shots, upon the visual correlation of shots with one another, upon transitions from one visual stimulus to another" ("Kino-Eye to Radio-Eye" 90). To sum up Vertov's definition, intervals refer to the art of organizing movements—editing—and thus turn out to be the crux in building up the kinetic pattern of a film. On the one hand, it is from from a "juxtaposition of visual detail" (borrowing Vertov's rhetoric for intervals here) that separate continuity, as I mention in the previous chapter, emanates ("Kinoks: A Revolution" 21). Intervals, on the other hand, allows a filmmaker to confute film works associated with human consciousness and to pave a way for his audience to bid farewell to human temporality and proceed for what Hansen would call "digitally inscribed time." Kino-eye, as "cinema-analysis," functions as a key to exhibit something more organized than the chaotic human perception and to show "life as it is."[31] This chaotic human perception, however, is not entirely disavowed by Vertov. What he endeavors is not a machinic replacement for human beings but a more effective cooperation between the human observer and kino-eye. For Vertov, the movie camera is just "a piece of equipment that will not describe, but will record, photograph . . . the visible world" which "[rushes] past, like time" ("Birth of Kino-Eye" 40). With the help of the editor, the recordings of the visible world made by the movie camera are arranged into a desirable visual effect. This arrangement of movements—

[31] "Life as it is," sometimes referred to as "life caught unawares," is a term coined by Vertov to describe the essence of what a kino-eye film tells. Nevertheless, what is eventually exhibited before audience does not necessarily promise the authenticity or a certain "naked truth" this term may literally suggest. More than just intact recording of life, it also requires filmmaking techniques, especially intervals, in showing this "life as it is."

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especially in the case of kino-editor and his or her kino-eye film—is decidedly associated with aestheticization of time.

It is precisely the way in which a kinok-filmmaker treats the subject of time that distinguishes a kino-eye film from an "artistic" film. In his elaboration on kino-eye and its relation to time, Vertov describes kino-eye as "experiments, distending time, dissecting movement, or on the contrary, absorbing time within itself, swallowing years, thus schematizing processes of long duration inaccessible to the normal eye" ("Kinoks: A Revolution" 19). The way in which Vertov presents time essentially shows kino-eye's capability of demonstrating time's passing. The kino-eye method employs techniques—such as fast and slow motion that distorts the speed of the visible world, and omission in narration achieved by dissolve, jump cuts, stop motion, or other skills applied to shooting, editing, and photographic processing—to expose temporalities of various kinds which all suggest the elusive passage of time. Kino-eye, for one thing, comes to the rescue of one's weary naked eye through a dissection and reorganization of the world that changes in rapid speed. For another, in its enterprising transformation of time flow on film, kino-eye effectively provides the audience with a new temporal structure, an aestheticization of time. This aestheticization of time remains central to Vertov's theorization of the kino-eye method.

Still, Vertov's active employment of the presumably "boundless" perception of kino-eye may, from time to time, direct critics' attention to his sociopolitical agenda. Some scholars follow Vertov's explanation and view the function of kino-eye as propagandistic or a "communist decoding" which sheds light on the disorderly visual world and is completed to "influence the workers' consciousness."[32] As mentioned in the previous chapter, Michelson takes Vertov's *MWMC* as an epistemologist "result, articulated most powerfully through the presentation of the filmmaking editing and projection process" ("Magician to Epistemologist"

[32] See "Essence of Kino-Eye" 49-50; "To the Kinoks50"; "Kino-Eye" 66; "Kino-Eye to Radio-Eye" 87.

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108). Regarding projection, a quick instance can be found in an intriguing shot that shows us birds flying backwards (Figures 1 and 2). This shot occurs in Part 1 of the film after the cameraman had left a building, presumably a station or residential building, and went outdoors to carry on his filming mission.[33] This abnormal flying activity is achieved by different projection method, which enables the observer to travel back in time. With the birds landing steadily on one side of the roof as well as on the sill and the ridge of a nearby building, the reverse motion informs us of the departure point of the flight and the very beginning of this spectacle. With regard to editing, a cross-cutting sequence in Part 2 where Vertov juxtaposes two filmed entities—a chimney and a miner—can testify as a good example (Figures 3 and 4). The sequence consists of two low-angle shot of a tall factory chimney emitting smoke and two medium close-ups of a worker bending over to shuffle coal. These four shots intercut together build up a strong correlation between the two subjects in separate frames—a harmonious cooperation between working-class people and the fact that it is a hunching miner in the underground wielding the hoe who supplies energy for other workers to effectively run the factory. Altogether, the four consecutive shots combine a communist decoding, while through parallel editing, Vertov shows the unnoticed aspects of life and provides with an antidote to cure people whose perceptional ability is numbed by bourgeois films.

As shown in the two examples mentioned above, the entire film deciphers the world via aestheticization of the passing of time. Indeed, as Michelson explicates, *MWMC* offers a complicated visual experience enhanced by kino-eye with

> a revelation, an exposure of the terms and dynamics of cinematic illusionism. And it is this—and not the speed, complexity, formal virtuosity, "obscurity"—that produced the shock, the scandal, the bewilderment in its beholders. It is the

[33] As the opening titles indicate, *MWMC* includes six reels. Succeeding a prelude that is interspersed after opening titles, each reel comprises an individual part of the film, while the six reels arranged together generate a chronological order.

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> manner in which Vertov questions the most immediately powerful and sacred aspect of cinematic experience, disrupting systematically the process of identification and participation, generating at each moment of the film's experience *a crisis of belief.* ("Magician to Epistemologist" 108; emphasis in orig.)

As much as the reverse motion of the flying birds traces back the start point of the flight, the chimney-miner sequence makes a retreat back to an unnoticed mine worker who fuels the functioning factory. Both discoveries are achieved by the kino-editor's play on temporal order. To reveal something extraordinary requires both engagement of and aestheticization of time's passing. Recognizing the director's attempt to decode life, this thesis argues that this communist decoding relies on the segregation between "before" and "after" and also on the reorganization of the fragments in the filmmaking process to fulfill an innovative visual experience. That is to say, Vertov's decoding facilitated by the kino-eye method resonates with Hansen's exemplifications of aestheticization of time's before-after structure.

Indicating the resonance of the kino-eye method with Hansen's "digital inscription of time," this thesis examines this digital character in two scopes. First of all, temporalization of the flow of time furnishes the kino-eye system, whether it is meant to serve Vertov's sociopolitical stance or not. Second, Hansen's concept of the digital inscription of time and Vertov's demonstration of the passage of time share a similar function—to present an improved temporalization, a visual experience of time that breaks loose from the limit of human time-consciousness. To this end, this chapter departs from the digital character of the sheer material level (i.e., film frames) and approaches a kino-eye film that can manifest as a visual embodiment of what Hansen calls "the digital gift of time." Among Vertov's film practices, *MWMC* serves as a paradigmatic example of aestheticization of time. *MWMC*, one the one hand, exhibits an aestheticization of the digital nature of time with its inclusion of a full

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repertoire of film techniques. On the other hand, the film creates a dynamic environment (which comprises of the reconnoiter of the mobile kino-eye device which begins from Part 1 and continues until the very end of the film), a forerunning ambiance that is characterized by what Hansen dubs "technically-distributed cognition."

Vertov deploys filmmaking devices throughout *MWMC* to achieve a visual experience of time's digital structure. One of the most efficient maneuvers that facilitates this structure, I argue, is film transition effect, namely dissolve. In Hansen's account, there is this significant feature recurring in the digital inscription of time, that is, "a recognition that . . . the contemporary being of time" is not confined by "human time-consciousness, but is rooted in a far more minimal and fine-grained structure of repetition" (305). The same recognition appears in a sequence in *MWMC* where a woman pushes open a double louvred window again and again (Figures 5 and 6). During a short period of time (7 seconds), one shot respectively fades into another, suggesting an inconspicuous part of the morning routine.[34] This quick sequence proffers a temporalization similar to that of Song Dong's diary project.[35] As much as Song "artifactualizes" (borrowing Hansen's term here) time's heterogeneity with watery traces on the stone, Vertov inscribes the passing of time by four seemingly repetitive shots whose involvement—the simple action of opening and nuanced change of the casements—echoes Song's watery writing on the stone which stretches beyond "*the thresholds of human perceptual experience*" (Hansen 295; emphasis in orig.). As a transition effect that bridges one point of time and another one or shifts from a specific venue to a different location, the dissolve technique here unites separate fragments and solves the possible jerky effect a simple cut may

[34] Though the four shots associated with this sequence resembles one another, each of them presents an individual routinized deed of window opening rather than a same repeated action. If examined closely, the woman who seemingly carries out the same action, in fact, repeats the opening with subtle nuances—in the second shot, for instance, right after swinging open the window, she leans over to fixate the casement on her right-hand side with a detachable stick, while in the following shot, the one on her left-hand side is stationed sideways first. In light of these nuances in iterative, we can thus consider this sequence showing a certain routinized deed being repeatedly executed over time. Similar tactic can also be found in a series of dissolve sequences in Part 5 where the transition effect is installed to connect locales and human routines (00:44:06-00:44:37).

[35] See Chapter Two for more on Song Dong's project of behavioral art.

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generate, while with one shot overlapping the ensuing shot, dissolve also adds weight to the subtlety of the movements—both of the window and of time. Meanwhile, lighting design in this sequence reinforces the visual effect of overlapping slats of casements created by lap dissolve. Specifically, in the third and fourth shot where the frontal and side lighting create shadows of the slats on frame left, the slat shadows are superimposed by overlapping movements of the casement, and thereby the concerted work of editing (dissolve) and mise-en-scene (lighting) accentuates the elusiveness of movements (Figure 6). In this regard, this routinized iterative reifies an "investment in the power of repetition as a structure of before and after" and thus furnishes the sequence as a cinematic inscription of time (Hansen 313).

Figure 1 Birds flying backwards

Figure 2 Birds returning to the departure of their flight

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Figure 3 Factory chimney emitting smoke

Figure 4 A coal-mining worker in the underground

Figure 5 A Louvred window swings open

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Figure 6 Lap dissolve of two shots

Apart from dissolve, another transition tactic—the eyeline match—also functions to craft an aestheticization of time and to "liberate the temporal heterogeneity . . . captured by *media* time" (Hansen 305; emphasis in orig.) The eyeline match sequence in the editing episode that spans the end of Part 2 and the beginning of Part 3 parallels Pierre Huyghe's artistic projects mentioned in Hansen's article (Figures 7-9).[36] [37] In the very beginning of this episode, a white horse—the same galloping horse that draws a carriage of people the cameraman (Kaufman) is risking his life to film—is suddenly stopped, which entails a sequence of back-to-back freeze-frames. Following the previous two reels—each respectively revolves around a specific theme: the first awakening and the second preparing for going out—this sequence suggests a related topic, a wake-up call made by the director for his audience to rouse themselves from their nescience and to experience the world. Vertov interrupts the illusive

[36] Although the sequence is interjected by a dividing animated shot of the number "2" falling back down, the segments from Part 2 and Part 3 scrutinized at the same time still remains a complete episode in Svilova's editing work.

[37] Hansen refers to several of Huyghe's works as instances in the article. To name but a few: The first piece cited by Hansen is *Billboard* (1994), a media project in which the artist places in a live construction site with a sign hovering above the construction workers that shows a picture of the workers themselves (Hansen 306). In this interactive device, Huyghe creates a resounding clash of "art and life" (Zahm 82). Also joining different temporalizations, Huyghe's *L'Ellipse* (1998) involves triple projection to form the hybrid temporalizations. Yet, rather than apply three synchronized projectors to show one complete image as a Cinerama device did in the 1950s, *L'Ellipse* shows two sequences from Wim Wenders's *The American Friend* (1977) on the sides with a third frame showing the very same actor from the Wenders film—only 21 years older—walking across the river (Hansen 307).

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flow of the film by inserting at intervals self-referential shots of editor's work (Svilova looking at film strips), freeze-frames (the frames being looked at), and the images of filmed objects of the still frames brought back in movement. This interruption, I argue, introduces a "shift from representation as storage of the past (of present experience that has become past) to representation as trigger, score, or format for a viewer-centered potentializing of the present" (Hansen 307). Furthermore, when Svilova reaches out to position the film strip she has just worked on, the rest film reels spread out on the shelves are shown superimposed by her right forearm (Figure 8). With this superimposed shot, Vertov creates a double effect of rear projection in which the key light coming from the lightbox embedded behind the editing table illuminates not only the film reels but also their editor. As the light shines through Svilova's limp in the way it does to celluloid, it then creates a cinematic scale of mise en abyme: we are once again cued in a slippage from "representation as storage of the past" (since the moment the editor worked on raw materials has past) to "representation as trigger," a "potentializing of the present" that suggests a frame that shows this working editor is currently examined by the Svilova herself. Thus, the sequence discussed here does not simply make the episode a self-referential piece; it is also headed towards a "reframing representation in relation to the present of the viewer" (Hansen 306).

Figure 7 Frame of a young girl with a white turban

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Figure 8 Svilova winding up film strips

Figure 9 Young girl smiling

Particularly, Vertov's kino-eye method and his aestheticization of time together craft a situation that echoes what Hansen specifies as "technical distribution of cognition" (304). This "technically-distributed cognition" houses wide-ranging temporalizations and forms a system that "embodies the co-operation of computational and human agents . . . *without imposing the requirement of synchronicity*" (Hansen 305; emphasis in orig.). In this light, I stress that there is a certain affinity shared by the manner in which the cameraman scouts around the world in *MWMC*. Throughout the film, Vertov amply displays the extensive mobility of the eponymous protagonist—"the man with a movie camera." From time to time, Mikhail Kaufmann, the cameraman on the screen, strides on a joist of a construction site or rides on a cargo box lifted

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up by a crane to shoot from high angles (Figures 10-11). Sometimes he needs to get down to the ground or even plunge into the underworld coalfield to capture dim aspects of life (Figures 12-13). Every now and then, he risks life and limb to balance on the edge of a locomotive vehicle or to hold on to the side of the train in motion so as to observe the working of movements (Figures 14-15). The filmmaker penetrates into every corner of the Soviet life just as manifested in the famous kino-eye monologue:

> Now and forever, I free myself from human immobility, I am in constant motion, I draw near, then away from objects, I crawl under, I climb onto them. I move apace with the muzzle of a galloping horse, I plunge full speed into a crowd, I outstrip running soldiers, I fall on my back, I ascend with an airplane, I plunge and soar together with plunging and soaring bodies. Now I, a camera, fling myself along their resultant, maneuvering in the chaos of movement, recording movement, starting with movements composed of the most complex combinations. ("Kinoks: A Revolution" 17)

The run-on lines above, on the one hand, render a rhapsodic itinerary of kino-eye, an explorational journey so inclusive in terms of the venues where observations and documentation are made that it promises, to an extent, the mobility of kino-eye. During its expedition, on the other hand, kino-eye progresses beyond "the scale of human consciousness," while by means of the resourceful exploration, it is enabled to tap into "'hybrid' temporalizations" (Hansen 302, 303). Vertov breaks down the "constant motion" of kino-eye so as to compose in this poetic passage of enjambment a juxtaposition of kino-eye's recording activity that goes on and on.[38] As Vertov's revolutionary filming approach, Kino-eye

[38] From beginning to end, *MWMC* grants a strong impression that the film is itself is constructed based on fragments. It is indeed likely to incite one to interpret this filmmaking approach as a Constructivist one (for instance, see analysis of Petrić, "Vertov as a Theorist" and *Constructivism in Film*). But the fragmentation in the making of *MWMC* can be considered in a new scope. What Vertov emphasizes on more than the process of fragmentation, I argue, is the dividing between before and after.

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"[instantiates] processes of temporalizing" and structures a technical distribution of cognition (Hansen 303).

This chapter investigates a twofold digitality in Vertov's kino-eye theory and practice. While Vertov aestheticizes this temporal before-after structure, his recognition of the digital character of time also echoes the way cyberneticists treat time in their experiments as introduced in the previous chapter. The subsequent section will examine how the cybernetic logic comes into play when Vertov's kino-eye method operates in its temporalizing process.

Figure 10 Kaufmann walking from the filming camera

Figure 11 Kaufmann and his assistant in a wooden crate

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Figure 12 Kaufmann lying prone on the ground to film from a low angle

Figure 13 Kaufmann walking down the tunnel in the coal mine

Figure 14 Kaufmann cranking the camera while standing on the edge of a convertible

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Figure 15 Kaufmann holding on the side of a moving train

Steersman with a Movie Camera

Vertov's kino-eye method reflects a cybernetic logic in two ways. First, kino-eye per se attests to what Hayles formulates as a "cybernetic posthuman" (5). While Vertov criticizes the imperfect perception of human subjects, he underscores the need for his Kinoks team to "exclude man as a subject for film" ("We" 7). This alleged "man" is abandoned for sure, but his film theory and practice do not show only non-human beings right away. On the contrary, the director articulates his approval of human intervention:

> [the] result of this concerted action of the liberated and perfected camera and the strategic brain of man directing, observing, and gauging—the presentation of even the most ordinary things will take on an exceptionally fresh and interesting aspect. (Vertov, "Kinoks: A Revolution" 19)

As shown in the way he theorizes this kino-eye method, Vertov does not propose a situation where humanity subsides for the rise of technology. Rather, humanity remains as it reincarnates into a cyborg-like entity, a hybrid which I consider to be entailing a new kind of subjectivity and suggesting Hayles' concept of cybernetic posthuman, since it incorporates operative "autonomous agents"—a maneuvering filmmaker and the perceptivity of the movie camera (6). Vertov's suggestion for this amalgamated organism of the cooperation of human intervention

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and technical amplification is best exemplified by one of the most celebrated shots in *MWMC*: the lens of the movie camera superimposed with a human eye (Figure 16).[39] This "kino-eye" is equipped with amplified perceptional and organizational capacity to excavate life-as-it-is, uncovering the undetected aspects of the world and showing people from all walks of life. And it is from the exploration of kino-eye that the second layer of cybernetic logic emerges. As defined in Vertov's formula, kino-eye equals "kino-seeing (I see through the camera) + kino-writing (I write on film with the camera) + kino-organization (I edit)" ("Kino-Eye to Radio-Eye" 87). Such a filmmaking process results in "an ever-growing movement for influence" ("Kino-Eye to Radio-Eye" 87). "Ever-growing" as it is claimed to be, this movement proves to be a changeable and time-sensitive one and, I thus argue, is essentially a cybernetic project, a visual experiment that signals several crucial processes and elements of cybernetics, including data collection and processing, an objective of forecasting and feedback loop. This chapter maintains that at the same time when the cybernetic logic imparts Vertov's kino-eye method to serve the director's interest of promoting his communist decoding, *MWMC* also reflexively depicts this the information system undergirded by cultural patterns. Although the liberal humanist subject hereby disintegrates into autonomous agents, subjectivity is not completely lost: it is evident as long as there is a performative agency still sending out messages to communicate and exert influences. In the following discussion, I will delve into Vertov's kino-eye theory and *MWMC* to examine the hidden cybernetic logic.

A structurally reflexive design, *MWMC* foregrounds the significance of the collection and organization of data of and explains their mechanisms. In the case of filmmaking process, the entire production team collaborates to collect and organizes raw materials that contribute to the final film.[40] *MWMC*, as claimed in the beginning titles, "an excerpt from the diary of a

[39] Stavrosm Alifragkis and François Penz contemplate this assemblage as "a hybrid organism consisting of human flesh that has incorporated the mechanical attributes of the recording apparatus" (39).
[40] Vertov claims that the Kinoks "felt . . . an obligation not just to make films for wide consumption but . . . films that beget films as well" whose "passage from camera through laboratory and editing room to screen—will be

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cameraman," documents the ubiquitous man with a movie camera who moves freely and accesses every unperceived aspect of life (Figures 10-15 and 17). The mobility and perceptibility of kino-eye, on the one hand, aptly registers hybrid temporalizations as indicated in the previous section and, on the other hand, enriches the collection of data and thus initiates the further arrangement and storage of film stock as shown in the insertion of another editor sequence in Part 4 (Figures 18-19). The sequence begins with an establishing shot which delineates tall shelves that fill the entire background, indexes hanging on the shelves and indicating topics according to which film stock is allotted, rolls of film each plugged with a note of a description or code. One second into the shot, we can see Svilova enter the frame as she makes her way to place onto the shelves the reels in her hand. As she reaches for the upper row of the shelf, we are immediately escorted to the next shot, a close-up that continues her movement by the match on action and shows her hand shelving the remaining reels. This moment is preceded by a rhythmic yet rather hazy fast cross-cutting sequence—which consists of shots that are juxtaposed together and show movements such as workers shining an axe, a razor, or a boot; operating factory machine or telephone switchboard; packing up cigarettes—and followed by rather clear shot of a miner filmed by the cameraman. In the shot of Kaufman filming the coal miner, changes of lighting suggest how the editor's arrangement secures a legible vision (Figures 20-23). The shot begins with rather dim lighting that allows us only to see the obscure silhouettes of geometrical shapes. As the shot proceeds, sidelights, underlight, and a key frontal light are added and intensified one after another. Finally, the obscure figures reveal to be a cameraman filming a working miner at the same time when the seemingly two-dimensional composition takes up volume and turns into a solid space. Organized this way, the three sequences altogether exhibit a causal order: a chaotic world, collection and organization

included, by montage, in the film's beginning, middle, and end" ("Love for the Living Person" 155; "The Man with a Movie Camera" 289). See also Chapter One where I argue for the disqualification of *MWMC* as a city symphony as I foreground the self-referential design in the structure of the film.

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of the recorded world, and finally a distinct vision. This editor sequence mediates in-between and suggests the importance of the processes of record and storage in the making of the film.

Although it seems that the cameraman and the editor work cooperatively in the way that the former ransacks the world to provide movements of life for the latter to make into perceptible intervals, Vertov, in fact, does not assign each to a particular occupation. As explicated by Vertov, the making of a kino-eye film demands a "kinok-observer" who is assigned by the director to "closely [watch] the environment and the people around him and tries to connect separate, isolated phenomena" according to an assigned theme ("Kino-Eye" 69). This alleged kinok-observer points to both Mikhail Kaufman and Svilova (the cameraman and the editor), for while in the cameraman's documentation resides as well a selective step in terms of what to shoot or how to frame a scene, the editing work encompasses the process of searching for adequate bits of raw materials for the film. And after the collection and organization made by the cameraman and the editor respectively, the director, or the "group leader," will help "[classify] . . . and [rearrange] the individual data until a sufficiently clear construction of the theme is achieved" (Vertov, "Kino-Eye" 69). Altogether, the Kinoks circle follows a cybernetic logic that undergirds the temporalizing process of the heterogeneous time and the making of a film or what Vertov calls a communist decoding of life. While a sense of division that is concomitant with Vertov's montage induces some scholars to suggest a particular form of cinema Vertov attempts or to even find fault with the filmmaker, this chapter argues for *MWMC* as a visual manifesto that speaks for Vertov's kino-eye theory at the same time when the film incorporates an undermining cultural pattern called cybernetics.

Some scholars observe such cultural pattern. For instance, in "Database as Symbolic Form," Lev Manovich examines the relationship between database and narrative and proposes a "database cinema." This database cinema is a hybrid form of database and narrative. By database, Manovich is trying to conceptualize in terms of computer science that "a structured

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collection of data" is stored "in a database" and "is [organized] for fast search and retrieval by a computer and therefore it is anything but a simple collection of items. Different types of databases—hierarchical, network, relational and object-oriented—use different models to [organized] data" ("Database" 81). Following this thread, *MWMC* manifests a "database cinema" in three senses: First, reality is captured and stored on the film strips which are later reorganized into a film. Second, the film encloses the data of Soviet daily life and rearranges the filmed life into an understandable and (partly) chronologically ordered plot. Third, *MWMC* metaphorically works as a database museum displaying a variety of film techniques for its onlookers and successors to study. Another example is a critique from Vertov's contemporary Boris Gusman who claims that "[the] skill in choosing appropriate 'pieces of life' is one of Comrade Vertov's strong points," (50). The sense of selectivity and organization suggested in Vertov's kino-eye theory and *MWMC* parallels the procedure of data selection and organization in a cybernetic experiment.

With the film structure arranged in a way that suggests data collection and organization, kino-eye also proposes for a prospect that echoes the goal of a cybernetic project to predict the future so as to hit the bull's-eye of the very target. In his "Film Experiment Station," Vertov explains this "prospect for the future" as "an institute for continuous invention and perfection" (21).[41] This notion reaffirms the fact that the Kinoks are obliged take into account the passing of time and to constantly renew their data collection so as to ensure the validity of kino-eye experiment. In Vertov's "Kinoks: A Revolution," the personified "builder," kino-eye, acknowledges the same idea by saying that

> I am kino-eye, I create a man more perfect than Adam, I create thousands of different people in accordance with preliminary blue-prints and diagrams of

[41] Vertov also pursues the most efficient management of his kinok personnel to achieve a similar goal. As he introduces staff in the Kinoks circle, Vertov also suggests to pursue "the optimum use" of the listed filmmakers to device "[plans] for the future" ("Film Experiment Station" 23; "We" 9).

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> different kinds . . . From one person I take the hands, the strongest and most dexterous; from another I take legs, the expressive head—and through montage I create a new, perfect man (17).

Like a cinematic Victor Frankenstein, kino-eye aims to breathe life into a cybernetic man through organization of "impetuous survey of visual events deciphered by the camera" (Vertov, "Kinoks: A Revolution" 20). Such a resolution to achieve "perfection" is vividly instantiated in the beach sequence and a split image from Part 5 which shows us several leisure activities. In Part 5, we can see Soviet people, after freshening up at the end of the day, appear on the beach. The beach sequence begins with an extreme long shot illustrating the crowdedness of the bustling beach and followed respectively by a medium long shot of a lying female torso, a long shot of another female lying prone, a medium close-up of a pair of lower legs—all of which are images of people relaxing on the beach. This pattern of the showing of an extreme long shot followed by images of body parts recurs for three more times, and camera moves a tad closer to the filmed subjects each time by recruiting more framing styles that assume close-up or medium close-up (Figures 24-26). Though without any camera movement, this sequence creates a dynamic imagery of kino-eye scrutinizing each person and their limbs by playing on camera distance. Similarly, in a shot that appears a while later in the workout and sport sequence, we have a split image that shows in the upper half of the frame a head with a pair of arms lifting weights and in the lower half a pair of legs spreading out (Figure 27). Yet, varying from the preceding sequence and responding to the search done earlier, this split image reunites separate body parts with a single frame and presents an embodiment of cybernetic entity that is perfected through the selection of limbs and head and reorganization of the collected data. And as the search continues and scans through exercising people, this cybernetic being, "more perfect than Adam," is promised constant renewal.

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While the dividing and cybernetic pattern discussed here, for some critics, may suggest a control system threatening to humanity, I argue for an affirmative aspect of the system, a breach to regain individual subjectivity and differences. On the one hand, the dividing pattern, or generally speaking, rationalization—which is depicted as a process to make things divisible, measurable, and calculable by Mary Ann Doane in her instance of the standardization of time—accelerates the formation of a modern society by undergirding the infrastructure that ferments advanced technologies or system. On the other hand, it brings along problems of modernity. Doane's speculation for such problem is based on the ultimate purpose of standardization to maximize the profit and thereby coincides with Franklin's worry: As Doane specifies, "the particularities of the worker's identity or the type of labor involved have completely disappeared in the abstraction of perfection" (6). Though I concede with this concern about potential risks of Taylorism, this thesis tries to argue that not all the standardization and rationalization will eventually lead to a tragic abstraction—be it abstraction of labor or abstraction of time—and uniformize human singularities. The futuristic character in *MWMC* notwithstanding, the film, in fact, is designed with an aim to reverse this looming danger. For instance, we can see in a close-up of hands keying swiftly on a typewriter that the worker's identity is recovered through superimposing split frames of numerous typists. Likewise, the face of a worker superimposed on a functioning suggests Vertov's attempt to re-concretize the abstract labor force. As described by Vertov as communist decoding of life, *MWMC* is by no means anything close to the confirmation of overwhelming control of capitalism. While the digital and cybernetic pattern involved in the kino-eye method work in harness to achieve efficiency, *MWMC* deploys another mechanism that suggests a rather democratic way of thinking.

An indispensable element during the process of bringing up to date data collection and regenerating the cybernetic outcome, feedback loop helps optimize the prediction or efficiency.

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According to Hayles' definition, feedback loop is associated with reflexivity which signifies "*the movement whereby that which has been used to generate a system is made, through a changed perspective, to become part of the system it generates*" (Hayles 8, emphasis in orig.). According to Hayles, feedback loop was first regarded as "a flow of information" developed to maintain the state of homeostasis, that is, to stay stable (Hayles 8).[42] As such, this chapter takes *MWMC* not only as a cybernetic experimental result but also an autonomous agent that responds to a broader system. The spirit of this feedback loop, I suggest, permeates Vertov's frequent use of eyeline match in *MWMC.* With this linking device of editing applied, two shots edited together can suggest an interactive relation of two parties. For instance, the sport sequence from Part 5 which shows alternatively motions of athletes and images of their onlookers (Figures 31-32). As the spectators watch attentively and that their facial expression reveals their reaction to what they have seen, some changes are made to the following shot of athletes. In the case of hurdling, the swift movements of athletes hopping over hurdles are slowed down and then completely stopped to provide a legible vision. Linked with the previous shot by eyeline match, such adjustments in projecting speed suggest Vertov's response to the reaction of the spectators.[43] As such, this sequence verifies Galloway's claim "each agent is endowed the power of local decision according to the variables and function within its own local scope" ("Cybernetic Hypothesis" 114).[44] Though the changes stay locally, feedback loop promises a cybernetic community for autonomous agents who are able to exert influence on the system rather than unilaterally dominated by a cultural logic.

[42] Galloway's notion on cybernetics parallels Hayles' as he confirms that "no external metaphysics defines or dictates the behavior of the system. Systems are thus self-determining and rely on a high degree of reflexivity and self-referentiality in order to work properly" ("Cybernetic Hypothesis" 114).

[43] Similar reciprocal relationship is also illustrated in the magician sequence and the movie theater sequence (Figures 33-36).

[44] Also, in the typesetting sequence from Part 5, after the editor finishes arranging the newspaper, we can see a Soviet citizen sliding a piece of paper into the drop box installed for contribution to newspaper; soon after the paper unfolds on the wall, we see a close-up of a passage on sport (Figures 28-30). The contribution box here functions as an indirect feedback loop for the agents to respond to local system.

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Conclusion

To conclude, the kino-eye method embodies the digitality of time as well as a cybernetic pattern. As elaborated by Hansen, the infinitesimal state of the digital nature of time is neither detectable nor possible to be preserved in a temporalization. The only way for us to experience time's passing is through a temporalizing process, that is, through what Hansen theorizes as technical inscription of the extremely fine-grained edifice of time. In the case of kino-eye, the cameraman and film editor cooperate to provide with advanced perception and engages us in the subtlety of life. Here, film editing works as a crucial role in the kino-eye temporalization. Through the linking tactics such as dissolves and eyeline match, the editor gracefully takes a leap over the incalculable as she exteriorizes *data*—or what Hansen calls "time's givenness"—into a digital inscription of time through an anesthetization that breaks away from the confine of the human consciousness and gesticulates the heterogeneity of time (305). While the aestheticizing process in Vertov's kino-eye method applies a dividing mechanism to render the before-after structure of time, its involvement of varied temporalities through cameraman's far-reaching reconnoiter conditions a modern network of technically-distributed cognition. Meanwhile, there is also a digitizing process that registers the cybernetic pattern underlying the kino-eye method. Taking into account time's passing as a variant, Vertov records and reorganizes film footages to develop a cybernetic model to "prospect for the future." And as long as it is constantly updated by a feedback loop, this prospect, should there be such a resolute result, ensures a certain extent of autonomy for the correspondents of an information system.

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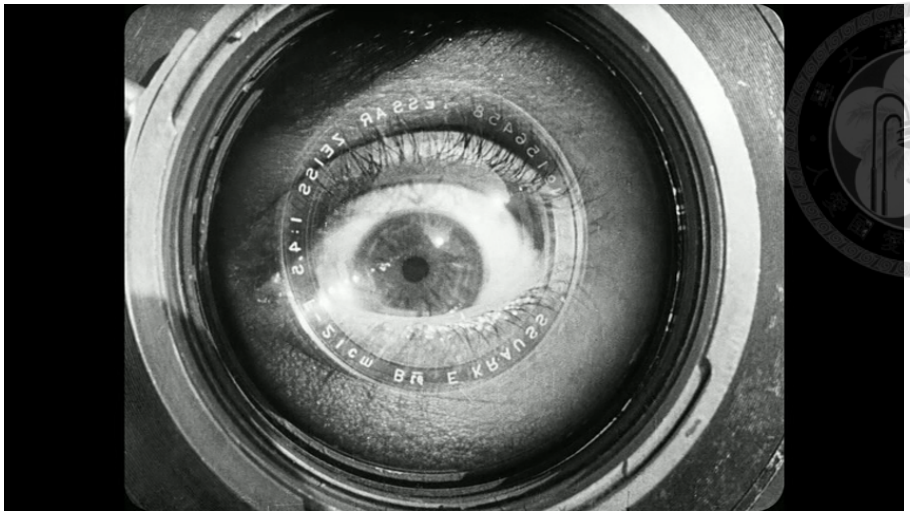

Figure 16 Human eye superimposed on the camera eye

Figure 17 Movie camera tilting down to observe the city

Figure 18 Svilova classifying film reels

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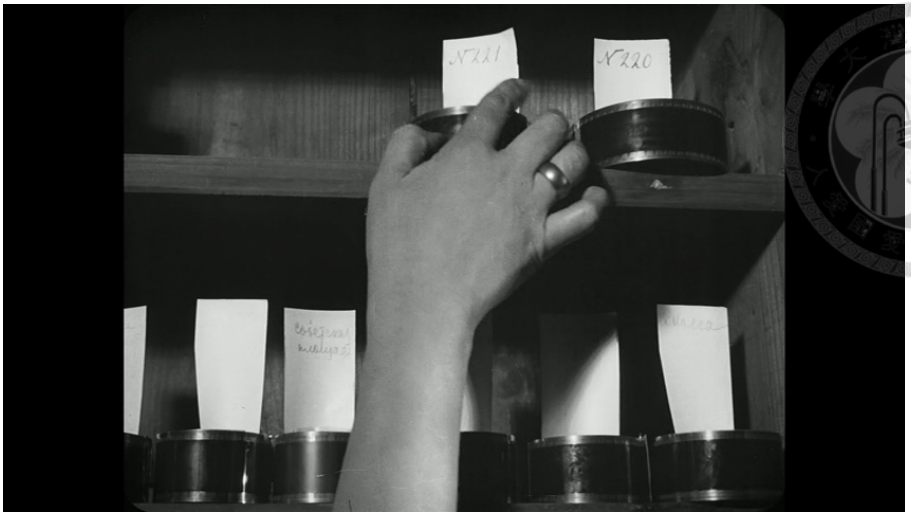

Figure 19 Close-up of Svilova's hand and classified reels

Figure 20 Dim lighting shines on obscure figures.

Figure 21 The hard sidelight on frame left is intensified to present the worker in silhouette.

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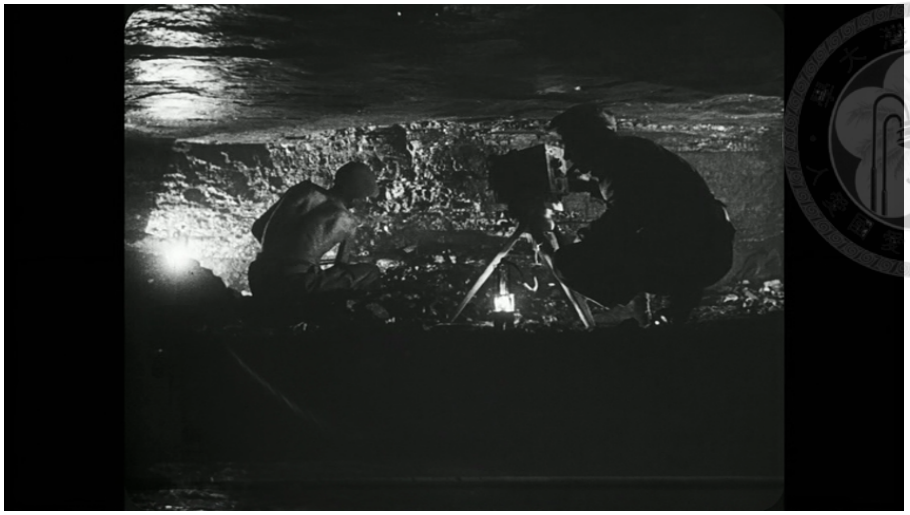

Figure 22 An offscreen sidelight outlines the profile of the filming cameraman.

Figure 23 A key frontal light is added to show the two figures and the locale in details.

Figure 24 Medium close-up of lower legs

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Figure 25 Medium close up of hip and thighs of a person and head of the adjoining other

Figure 26 Medium close up of head of a man

Figure 27 Split image comprised of parts of a human body

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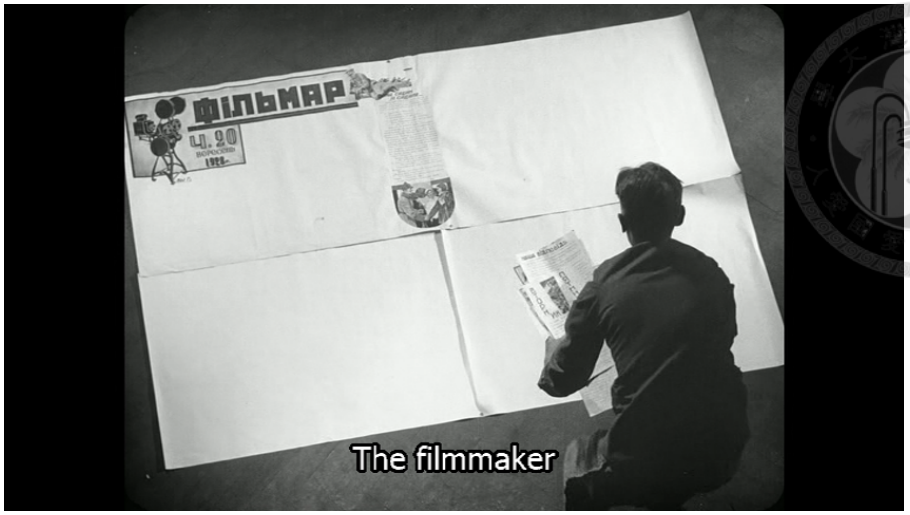

Figure 28 High angle shot of typesetting for a newspaper

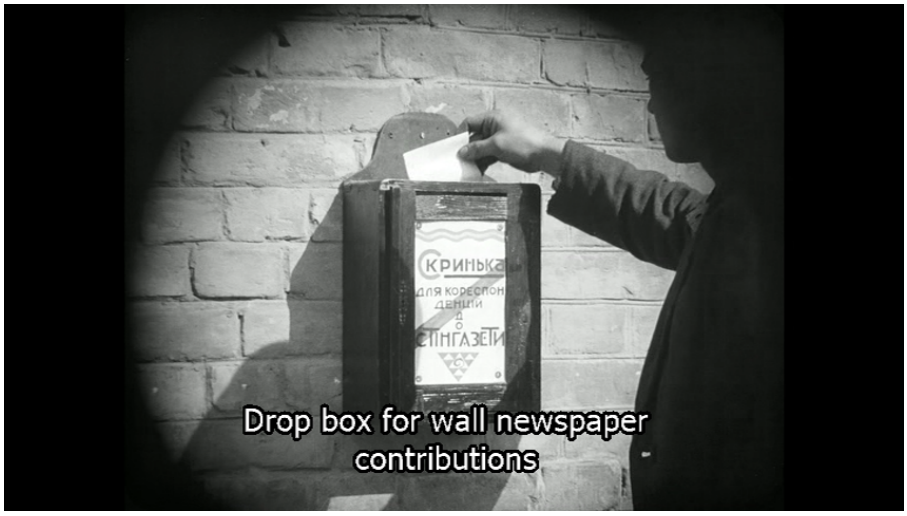

Figure 29 A circular mask that encloses someone contributing to newspaper

Figure 30 A passage on sport excerpted from the newspaper

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Figure 31 The audience looking to the frame left

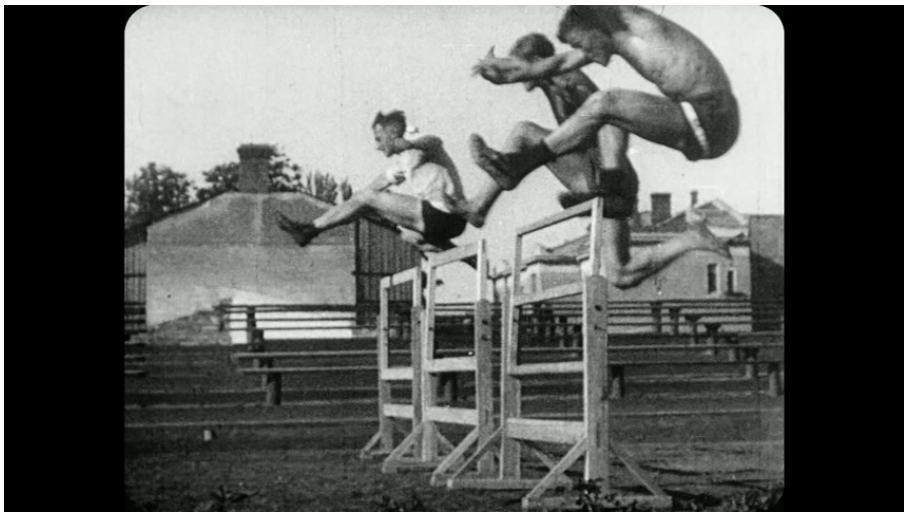

Figure 32 Hurdling motion slowed down to a full halt

Figure 33 A boy looking to the offscreen magician

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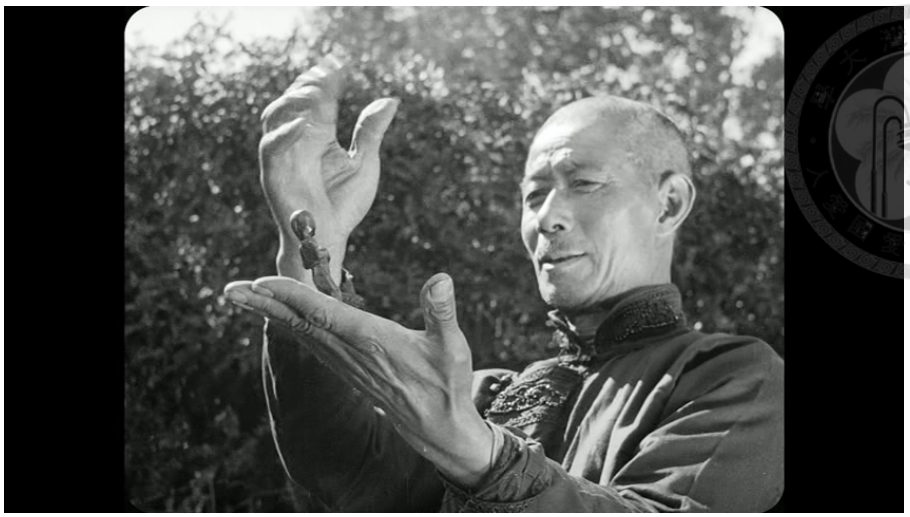

Figure 34 Magician erecting a tiny doll without physically moving it

Figure 35 Close-up of the profile of a spectator in the film theater

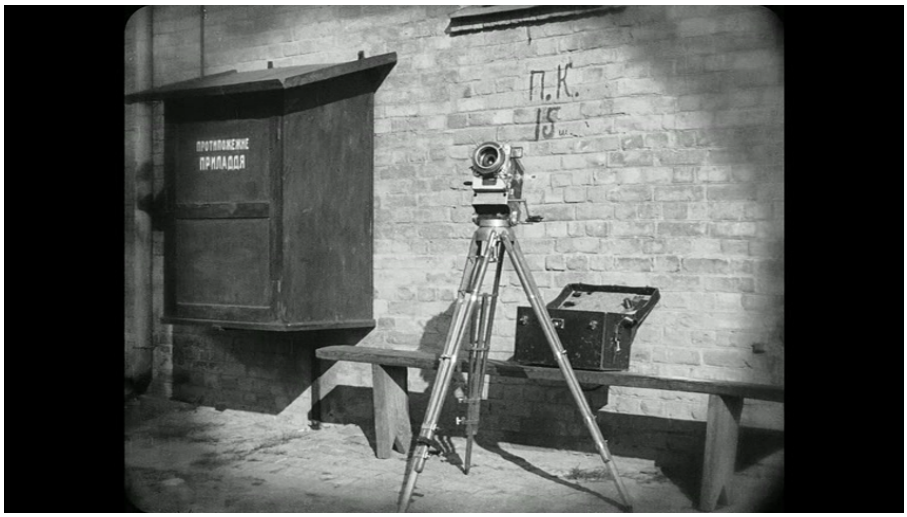

Figure 36 Long shot of camera panning around and tilting up and down

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Coda

This thesis investigated digital and cybernetic logics working in Vertov's kino-eye method with particular emphasis on montage. The digital and cybernetic logics under discussion are derived from the mechanism of information organization and reciprocation. We can identify these logics in two situations that affected early Soviet film industry in general. On the production level, confronted with the predicament of the industry, filmmakers were sometimes forced to reuse film stock or reorganize found film footage at hand, and integrate old stuff into a new project. On the censorship level, this logic transformed into a "wise and wicked game" played by the film editors and the officials, a negotiation to decide the content deemed appropriate for the screen. Altogether, both aspects relied on the mechanism of circulation: circulation of data for production and circulation of information for censorship. In other words, the impoverished situation of Soviet film industry at the time required effective organization being made for the completion of a creative project. Although it might seem that the "spirit" of Vertov's time was one of pursuing newness as it was the beginning of a new siècle when Vertov was first introduced to the innovative medium of cinema and modernist art movements, what is revolutionary about Vertov is not an intended about-face turn away from tradition but an inherent move derived from a continuity of history. Taking note of this, most Vertov scholars are interested in the political and cultural contexts of Vertov's work and foreground the sociopolitical and aesthetic implications of Vertov's film theory and practice. This thesis, however, called attention to the underlying digital and cybernetic logics in Vertov's most remarkable work.

By expanding the scope of digital and cybernetic logics, this thesis argued that cinematic digitality operates not only in film shooting and editing but also in the way cinema aestheticizes time. Exhibiting the dividing structure of before and after, the inscription of time's passing realized in Vertov's film practice gives way to the emergence of a kind of modernity

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that speaks not only with a “passion of the present” but also with “historical consciousness of the future and a will of being ahead of the time” (Compagnon 48). Apart from the dividing structure of Vertov’s temporalization of time flow, there is a digitizing process furnishing cybernetic organization of information in Vertov’s cinema. This thesis looked into Vertov’s progressive film editing techniques and pointed out the fact that the movements of life presented in *MWMC* consist of dynamics of feedback loops that engage the filmmakers and the spectators. Through analysis of *MWMC*, this thesis argued that the interchange of stimuli not only completes a cybernetic experiment but also indicates a democratic network that houses the agency of individuals.

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