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Paula Albuquerque

the webcam
as an emerging
cinematic
medium

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aan de Universiteit van Amsterdam

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MINISTÉRIO DA EDUCAÇÃO E CIÊNCIA

Dedicated to my beautiful Alice

“I thought I was seeing convicts”

Ingrid Bergman in Roberto
Rossellini's *Europa 51* (1952)

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Introduction

It was at a very young age that I intuitively knew I was living in a cinematic world. The sensation of constant observation has guided me throughout my career as an experimental filmmaker. After exploring the thin boundaries between fiction and documentary, I turned to archival materials and found footage. For the past fifteen years I have been observing and recording webcam streams.

This dissertation results from my artistic research project where I use webcam-generated footage as sole source material for the making of experimental films and installations. My study is an analysis of the possibility to create a new mode of filmmaking that is broadly accessible and networked, one that creates archives for future categorization of audiovisual materials documenting city life. Central to the dissemination and pervasiveness of this new cinematic medium is affect, which is present in the relation between individuals and the cameras, and which influences processes of subjectification. My art project has its roots in 1999, when I became aware of the growing number of cameras that streamed in real time over the Internet, apparently for no reason and in an unregulated manner. I realized by then that cameras normally used for surveillance were being sold as *webcams* to any household that could afford them. I wondered about the reasons that made ordinary people position cameras at their windows with the sole purpose of streaming imagery from the public space of their street to Internet viewers. Around that time, I got in touch with activists who were designing city maps to identify routes where surveillance cameras could not capture images of individuals.¹ When performing a squatting action, for example, one could avoid being filmed if one followed the cartographic indications, or prevent recognition by wearing a hooded jacket if the cameras were too pervasive in the area.² Fascinated by the high degree of influence the awareness of the cameras' existence had on the activists' street routines, but also by the increasing purchase of webcams by ordinary households, I started regularly observing the publicly accessible streams.

My first film using this footage was made in 2001. *Siesta* is a short film set in Amsterdam in which I searched for images streamed from different time zones and captured them in real time, approximately at noon. The resulting imagery includes streams offered by webcams in various countries, starting in the United States in the morning and ending in Japan at night.

1 Several years ago I worked for a couple of non-governmental organizations, mostly doing journalistic writing about environmental issues and, specifically, climate change. This has brought me in contact with environmentalists and social justice activists who I prefer not to name as source. Recent versions of these maps can easily be found through Google.

2 "Squatting" refers to the political action of occupying a building, mainly to resist real estate speculation.

In *Siesta* people can be observed commuting to their jobs in New York, a couple is filmed getting married in a Los Angeles chapel, and images of two individuals are captured while they apparently discuss shoes next to a mall cinema somewhere in Italy, all while the darkness of night covers Tokyo's skyscrapers. This methodical collection of images across several time zones allowed me to literally compress time and space into a short five minutes of edited footage revealing disparate locations. The outcome was an experimental film conveying a potentially universalizing portrait of the "any-day-whatever" of global time.

During the years leading up to the present dissertation, I continued to develop art projects with online cameras. I have observed the moments when they first appear on webcam-dedicated sites and when, after some time, they subsequently go offline. For instance, I have noticed how cities influence the images they provide to the online public. To illustrate, around the year 2005, Amsterdam's webcams were mainly found streaming from picturesque shopping streets. However, their location has recently been moved to building sites, as the emphasis seems to have shifted away from the touristic appeal of branded retail pleasure. Judging from the available cameras, one might conclude that by showcasing the city's current architectural achievement, Amsterdam is choosing to present itself as a world-class metropolis. Regardless of the choices cities might make in relation to how they present themselves at a given moment in time, I have learned through observing webcam streams that the vast majority consist of images of people in the streets: individuals can be seen shopping, eating, conversing, or just standing around.

In this regard, several of my works focus on the intimacy people sometimes display in front of cameras positioned in public or semi-public spaces. Such conduct appears, for example, in my 2009 film, *GMT minus 5*, which was shot by a webcam located in a Times Square bar. In the footage, the young women working behind the counter, who are probably aware of the camera's existence, seem unconcerned that its presence interferes with their privacy. Filling the blank moments between customers, they retouch each other's makeup and laugh together. When, but not before customers arrive (who are mostly male) the women adopt a stiff professional posture. With the camera as the single witness to their restful moments, they are relaxed and appear genuine in the way they express themselves and interact with one another, seemingly oblivious to the fact that millions could be watching

online.

Before I began the present film-based research, I assumed that people were unaware of the cameras constantly filming them and simultaneously streaming their imagery. After a few years of intensive observation, I wondered if they had forgotten about the cameras' presence. Finally, I realized that the pervasive presence of video surveillance had been internalized, leading me to conclude that there had ceased to be an "outside" to the city's cinematic realm. Networked cameras had formed a closed circuit in which everyone was involved, either by pointing the camera at the streets, by observing its image streams, or by being filmed.

Artistic Research

When I was four years old and grew fully conscious of my own physical image, I had the feeling that, wherever I was, there would be an invisible camera filming me at all times. This may be due to the fact that I come from a family of engineers, where cameras had been a constant presence since the beginning of the 1900's, producing a history of domestic portraiture in photography and film. I had intuitively grown aware of living in a cinematic world and believed that someday my own life would be played back to me as an unedited collection of raw, uncut footage. This awareness has always stood at the forefront of my film experiments and still profoundly affects my artistic practice and theoretical studies.

As an experimental filmmaker attempting to grasp the underlying philosophical issues of a phenomenon to which I belong, I embarked on the present PhD project. In order to follow up on questions related to the ways in which a subject is affected, or even created, by the constant presence of cameras in urban spaces, I became involved with film philosophy, media theory and critical analysis. Once I began my research, it became clear I would need to establish a relation between surveillance and the cinematographic apparatus that would lead to a deeper understanding of the specific medium of the webcams. Surprisingly, interactions between concepts like *film*, *factory*, *prison* and *city* have arisen during my study, which further directed me in the research to build coherent conceptual constellations that would suit my analysis.

This doctoral program consists of an institutional form of artistic research providing me with the opportunity to study concepts that enhance my development of ideas about the contemporary cinematic world that envelop the individual on a daily basis. Furthermore, my study enables me to continue performing practice-based experiments with and about film production forms and aspects of surveillance cameras. The joint supervision provided by the university and the arts academy has guided my effort to develop a coherent and rigorous theoretical study of this cinematic medium, and simultaneously to continue making experimental film-based art pieces using publicly accessible webcams (and occasionally CCTV). Searching for a productive relation between the components of theory and practice has obliged me to dedicate less time than usual to art practice in order to read, analyze and write the theory for my research. However, even if at given moments I felt pulled away from my natural craft, I am conscious of how this parallel path has enabled the independent development of both parts of the research, allowing theory and practice to mutually inspire and support one another.

In order to keep a balance between the roles of theoretical discourse and artistic practice in the results of the research, I made a conscious effort to avoid using a scholarly approach to explain my film pieces. The research presented here involves a text-based analysis of the rising phenomenon of the webcam as a cinematic medium and its impact on urban life, rather than an interpretation of my practice as a filmmaker. In providing information about the films and installations I make with webcam footage, I have favored a descriptive approach to the constitutive elements of the artistic work to unveil *how* the projects were developed rather than *why*. In addition, I have consciously avoided using the film pieces made during my artistic research to illustrate the theoretical study. The art pieces documented as part of this dissertation form a *paratext* that triggers its own theory. The documentation reveals that approximately half of the research occurred during the making of the film pieces, when specific ontological aspects of the webcam as film medium emerged for experimentation. In summary, the relation between the two research components is based on an interweaving of writing text and making art that is mutually supportive yet methodologically independent, since artistic processes differ significantly from scientific ones.

Every artist approaches his or her artistic research differently. In my

particular case, I find that my doctoral program has enriched my art practice with a theoretical body of knowledge that allows my film-based artworks to achieve other layers of signification. Conversely, my experiments with webcam material have further directed my studies through the pursuit of particular insights that theory fails to offer, namely, insights that occur as I experiment with the actual material and explore the potential that the medium affords. For example, I have made extensive use of critical analysis during this research, which produces knowledge after the fact and could be enriched by the scholarly endeavors of artists. Having said that, it is equally important to emphasize how determinant critical analysis has always been for the emergence of new fields of knowledge, but also for the making of new art, and how influential this process has been for the present research. Hito Steyerl summarizes this point when she highlights the fact that, on the one hand, specific scientific methods lead to shared knowledge, while singular (artistic) methods create individual forms of logic. According to this artist and scholar, artistic research moves among and affects both methodological approaches.³ Henk Borgdorff similarly draws attention to the fact that artistic practices can never really be independent of their context of production. As such, they are always part of a social history and artistic discourse.⁴ This means the artistic practices emerge from existing fields of knowledge while simultaneously influencing them in return, not only in terms of adding to their artistic content but also, I would add, by altering their modes of operation.

Those who pursue a doctoral degree in artistic research require a specific place within academia, one that is anchored in the specific ability to relate theories in paradigms derived from first-hand experience with the materiality of the artistic medium and object. As is known to those working in the field, artists possess an intimate knowledge of processes that are mostly unseen and unfelt by those who only experience the final result. This personal knowledge could be shared through artistic research projects developed within existing academic contexts that are customized to suit the artist's aims and requirements. Doctors in the arts may add valuable contributions to the scientific fields the artist engages with during such projects. As far as my own research is concerned, I hope it will add a qualitative contribution to film philosophy and those streams of film and (new) media theory that focus on the way subjectification is influenced by cameras and screens. I equally hope that this dissertation will contribute to further investigation and realization of

3 Hito Steyerl, "Aesthetics of Resistance? Artistic Research as Discipline and Conflict," 2010, accessed August 11, 2014, <http://eipcp.net/transversal/0311/steyerl/en>.

4 Henk Borgdorff, "The debate on Research in the Arts," 2006, accessed July 29, 2015, http://www.pol.gu.se/digitalAssets/1322/1322713_the_debate_on_research_in_the_arts.pdf.

the potential of experimental and autonomous audiovisual art in transforming contemporary approaches to filmmaking.

The scope of film pieces referred to in this dissertation includes those of other artists and filmmakers. It ranges from mainstream cinema, including standard fiction and documentary, to experimental film and video art, including installation and expanded cinema. The rationale behind my choosing such a broad scope of audiovisual forms and techniques is related to the way in which my own practice is situated amidst all these apparently segregated art practices, disciplines, and display modes. My career as an audiovisual artist began with stage photography, subsequently moved to the making of standard short films and documentaries, and on to experimental forms, video installations, and live-editing performances. As an autonomous artist, I do not regard either of these forms of filmmaking, including expanded and post-cinema, as separated from one another, regardless of the platform: the use of analog or digital, online or offline, mobile or immobile. The cinematic, as I conceive it, takes place in the city and affects people through multiple cameras and screens, but also occurs beyond the presence of any optical equipment. I propose to understand the cinematic as a condition of urbanity to which webcams actively contribute with their continuous audiovisual generation.

The Cinematic as Mode of Existence

The cinematization of public space consists in an emerging paradigm that is rapidly becoming the norm due to the pervasiveness of urban video surveillance. Such surveillance has materialized into a fast growing reality, engulfing daily routines, changing people's habits and altering their sense of self. Thus, before defining the actual cinematic medium of the webcam and the surveillance apparatus from which it emerges, I will analyze the spatial and temporal realm that originates from it and is in turn shaped by it: the urban contemporary cinematic reality. Through Bruno Latour's theories I attempt to define the cinematic reality I identify as a potential "mode of existence." On Latour's website dedicated to this project, he states:

When one speaks normally about the mode of existence of some group or individual, one refers to their customs, their mode of being, their ethology, their habitat in some way, their feeling for a place. In this inquiry, we are keeping all the connotations of the phrase, but we are giving the two terms “mode” and “existence” stronger meanings that don’t direct attention towards human groups or individuals, but towards the beings about which humans are interrogating themselves. The word “being” should not be unsettling: it is another way of replying to the question, “What, for example, is the law, or religion, or science?” “What is important to you?” and “How can I talk about this properly with you?”⁵

Latour demarcates his approach from the more commonsensical notions that relate to modes of existence, which correspond with what could be considered the *lifestyles* of individuals or groups. From my interpretation, by emphasizing the terms “mode” and “existence,” the philosopher concentrates his focus on institutional entities interacting with the individuals and framing their actions. What Latour refers to as “the beings about which humans are interrogating themselves” is at the center of his thesis, further clarified by the examples of “the law, or religion, or science.” What can be inferred by this claim is that these institutions are to be regarded as “beings,” as non-human entities that directly interact with and affect humans. For the purpose of developing the present hypothesis in relation to Latour’s placement of the beings of law, religion and science, another term could be added to the list, namely *surveillance*. Initially belonging to the realm of law enforcement, surveillance has arguably become an autonomous institutional entity of its own, a being with remarkable effects and influence on subjectification. I propose that the contemporary state of maximum preemptive surveillance is determined by the premise that the entire existence of every citizen is being filmed and stored in the form of a stockpile of vast amounts of audiovisual data, and that the individual is aware of this fact. This camera- and archive-awareness have a profound impact on the sense of self. Both camera and archive derive from and allow for the creation of a cinematic environment where individuals involved in the process of image production and distribution play a part. It is not only the individual or authority owning the camera that has a stake in the making, maintenance and transformation of

this mode of existence: the people in the street being filmed also contribute to its creation and preservation. Anyone who collects webcam imagery along with everyone who allows for the mass-archive of audiovisual documentation of the self contributes to the growth and maintenance of the integrated circuit at the core of this mode of existence.

The profusion of media that record and transmit imagery over the Internet characterizes the contemporary cinematic mode of existence, where audiovisual media are a constant and pervasive presence. It is useful to look at the writings of anthropologist Arjun Appadurai when attempting to delineate and conceptualize the cinematic mode of existence in relation to mass media.⁶ He argues that the phenomenon of globalization, both unifying and fragmenting, has given rise to a series of global *scapes*: ethnoscapescapes, technoscapes, financescapes, mediascapes, and ideoscapes. Of particular interest for the present dissertation are the content-based mediascapes, which give form to the information provided to the public. In Appadurai's words, these "tend to be image-centered narrative-based accounts of strips of reality."⁷ This definition indicates that the knowledge of reality in contemporary society is provided and constituted by mediated visions. Webcams, being generators of this form of processed information, produce their share of "strips of reality" when they offer a seemingly transparent documentation of urban activity through live streaming. In fact, Appadurai generalizes mediascapes as those "images of the world created by [...] media." In a similar process of mediation and production, webcams may create representations and simulations. In general, the media fabricate these visions, but their presence may already contribute to altering or adjusting the actions being documented. Within the context of a controlled environment, such as the public space of the city framed by webcams, a potentially predetermined action will occur and a vision of reality may be fabricated, shaping a mediascape disguised as objective representation of reality.

Another concept that is relevant to the understanding of the operational model of the cinematic mode of existence is Steven Shaviro's interpretation of the mediasphere as an environment that has become one with contemporary reality: an all-encompassing single unit or network.⁸ The mediasphere is here understood as the embodiment of networked mass media, which is extensive and pervasive to the extent that it can be regarded as a Latourian mode of existence. Shaviro considers the mediated reality of

6 Arjun Appadurai, *Modernity at Large: Cultural Dimensions of Globalization* (Minneapolis: University of Minnesota, 1996).

7 Ibid., 35.

8 Steven Shaviro, *Connected, Or What It Means to Live in the Network Society* (Minnesota: University of Minnesota Press, 2003).

people's actual environment, which they accept as part of their lives, as defined by the pervasiveness of smartphones, tablets and laptops, to which people have become attached and completely depend on for work and entertainment.⁹ For example, beyond online business meetings, people nowadays routinely communicate with their family members across the globe through Skype, Viber, WhatsApp and other chat systems. This results in personal relations that become mediated to the point that they acquire an existence outside of the material world and thus become virtual. This (hyper)-mediation of the mediasphere is furthermore exemplified by users that routinely connect to self-replicating automated virtual beings, known as bots, when involved in social media. Seemingly endless bot armies swarm the Internet, and people engage with them as they would with other humans.¹⁰ Emulating human emotions and contributing to online debates, the cyber character of the bot has been accepted as just another form of end user. Shaviro actually goes so far as to affirm that the mediasphere has become nature to humans, and that it shapes their identities as subjects.

In order to further analyze and define the networked mediasphere that produce mediascapes as a cinematic mode of existence, it is important to distinguish its two most determining instances: the global media network of the Internet and the cinematic technology of webcams.

The Global Media Network

The paradigmatic structure of the cinematic mode of existence to which webcams belong is that of the network, as there would be no webcams without the Internet. The identity of this network is eminently corporate, representing and expressing financial interests that reflect its capitalist mode of production. Under the guise of an attempt to democratize the means of information access, people are encouraged to support the initiatives taken up by authorities and multinationals to allegedly overcome the digital divide.¹¹ This pervasive form of peer-pressure has grown through the use of aggressive marketing techniques selling the idea that "intelligence is a distributed networked phenomenon."¹² As such, everyone is expected to integrate into a growing self-updating online community supposedly harboring all the knowledge ever produced, where every minute spent disconnected is a

9 Ibid.

10 Ibid.

11 Ibid.

12 Ibid., 3.

minute of precious information lost. The methodologies of the corporate network reconcile “the conflicting imperatives of aggressive predation on one hand, and unquestioning obedience and conformity on the other.”¹³ People believe that they need to belong to the online community as active users or otherwise they will be punished by exclusion and lack of access to the means of communication. This situation would ostensibly result in complete societal collapse. The consumption of content disseminated over the Internet is mandatory for people who consider themselves well-informed citizens and responsible members of society. This implies that people are constantly engaging with the Internet to produce and consume content, which is at the basis of the capital mode of production based on networked information exchange.

From this perspective, everything in the world, i.e. the mediasphere as well as nature, exists in order to be captured. With this mission, the Internet pervades the personal lives of all users by owning not only their data profiles, but also providing most of their activities in their waking life. There is no longer the need to access an interface, such as a computer, tablet, or smartphone, to connect with in order to access the network, since this extends beyond the limitations of any medium.¹⁴ As a matter of fact, the network has invaded the material world and imposed its modes of functioning upon daily reality. One is constantly distracted and multitasking, for example riding a bike while texting, and it is generally accepted that one cannot concentrate on one thing at the time. A walk to the shop around the corner involves the production of a few *tweets* and many *likes*, not to mention the many Facebook posts that are generated on a daily basis from public toilet booths. In the present mediasphere, at a time when information seems to be all people want and all they produce, everything has become worthy of sharing: all experiences are mediated and fed into the network. The result of this for the public is constant access to and production of overlapping fragments of information. Most of us actually spend entire days connected to ensure participation, completely dependent on the network, and thereby support its thriving conditions of production. This simultaneously entails that one allows for vast amounts of data to be collected, including credit card statements, medical records and the recording of public life by audiovisual surveillance.

Internet-based media capture and archiving of events are still erroneously regarded as transparent digital processes of data collection that

13 Ibid., 4.

14 Ibid.

document reality.¹⁵ This is due to a technical opacity that desensitizes the end user. Most people are ignorant of the technical aspects of the Internet, and yet they remain completely dependent upon it in order to receive and produce content. The far-reaching consequences of each technological discovery on moral and ethical levels, for example, when it comes to identity formation, is generally disregarded in order to promote the function attributed to the medium. Even then, webcams, being the tools used by the network to collect live action as audiovisual data, have had a considerable impact on the ways in which people perceive themselves and others through on screens. As this fact appears to remain unquestioned by the very people who buy these devices and install them in their streets to film others, it becomes increasingly apparent that the mediasphere, which is at the core of the cinematic mode of existence, has become internalized. People move through the Internet online and offline, apparently without inquiring about the levels of intentionality behind its high-tech tools (including visual media) or even on the level of the politicized code (profoundly race- and gender-determined).¹⁶ This apparent lack of questioning further calls for an analysis of the cameras inherent to this media-based mode of existence that is cinematic in essence. What follows is a short introduction to the relevance of the networked surveillance of webcams for the cinematic mode of existence.

The Cinematic Technology

When analyzing the influence of webcams on the perception of the world through the Internet and how this relates to a subject, it is necessary to highlight the morality and ethics involved in storing and using the imagery produced by these cameras. As mentioned above, webcams cannot be seen as purely transparent media as they are not solely used as instruments for the

15 Bernard Stiegler, *Technics and Time 1: The Fault of Epimetheus*, trans. Richard Beardsworth and Georges Collins (Stanford, California: Stanford University Press, 1998), 21.

Bernard Stiegler also comments on the apparent seamlessness of technology, when he affirms that “today, we need to understand the process of technical evolution given that we are experiencing the deep opacity of contemporary technics; we do not immediately understand what is being played out in technics, nor what is being profoundly transformed therein, even though we unceasingly have to make decisions regarding technics, the consequences of which are felt to escape us more and more. And in day-to-day technical reality, we cannot spontaneously distinguish the long-term processes of transformation from spectacular but fleeting technical innovations.”

16 Jonathan Beller, “From The Cinematic Mode of Production to Computational Capital: An Interview with Jonathan Beller for Kulturpunkt,” by Ante Jeric and Diana Meheik, January 31, 2014, *Kulturpunkt*, <http://socialtextjournal.org/from-the-cinematic-mode-of-production-to-computational-capital-an-interview-with-jonathan-beller-for-kulturpunkt/>.

transmission of audiovisual content. The ethics attached to the use of webcams cannot be defined simply as an extra signifying layer that has been produced after the fact. Regardless of its alleged potential to enhance safety and assist in crime prevention, video surveillance produces elusive and fragmented realities that are independent of the real live action it is supposed to depict in real time. The intentionality behind the creation of these cinematic realities should be critically analyzed by inquiring whether the cinematic is a precondition for the conception of webcam technology or if it instead derives from it, and only takes shape at a later stage.

Latour writes that technology and humanity have been interdependent for about two and a half million years.¹⁷ In his view, one does not pre-exist the other. This implies an intertwinement of both the intentionality behind the conception of technology and the effects this has on the humanity behind it, since without technology humanity would forever remain unchanged and thus not *evolve*. As Latour says “[t]echnologies belong to the human world in a modality other than that of instrumentality, efficiency or materiality.”¹⁸ It could be inferred from this citation that Latour refers to a moral and ethical level to which technologies belong, which extends beyond material reality. Much more than a *means to an end*, media technology both produce and are produced by a mode of existence. If we consider webcams within this context, it is reasonable to conclude that the cinematic reality they create is not the direct product of the initial intentionality that underlies surveillance. This is an unforeseen result of the aim behind the production of documentary imagery for people’s protection, with the resulting preemption of criminal activities and the archiving for future categorization enabling a forward-looking analysis for retrospectively tracing terrorism. The cinematic reality is being created by webcams during the dual process of capture and transmission by the same webcams. Latour compares the technological regime to the surrealist “exquisite cadaver,” a multidimensional object containing all times and spaces of its own existence within itself.¹⁹ In relation to webcams, the exquisite cadaver of its technological regime presupposes a variety of *folds* that encompasses a heterogeneity of times and spaces (of production, capture and dissemination) in combination with the action brought about by the intervening individuals (the owner, the observer of the camera, the person being filmed or an artist appropriating the material). As technology transforms humanity, webcams stand for more than mere mediators between

17 Bruno Latour, “Morality and Technology, The End of the Means.” *Theory, Culture and Society*, no. 19 (2002): 247-260.

18 *Ibid.*, 248.

19 *Ibid.*, 249.

reality and perception. According to Latour's logic, the initial instigators of the surveillance society could not have foreseen the resulting technological regime, which creates new realities that may oppose the primary function of its tools. For example, the cinematic aspects brought about by a renewal of public spaces are further being influenced by people's growing conscience of constantly being filmed (and this exceeds, by far, the initial crime prevention entailed by surveillance).

One could argue that webcams are a direct result of a preexisting cinematic mode of existence that promotes the dissemination of networked audiovisual media. Producing imagery of the world for Internet users to access seems to be a legitimate result of this mode of existence that promotes self-surveillance in the form of data collection and entertainment. However, as everyone produces their own means of self-regulation, people adapt their behaviors, since they are aware that their image may be constantly observed and stored for future viewings. Being a "tool" in Latour's terminology, the medium of the webcam should thus not be reduced to an extension of the human eye, because it in fact transforms the eye, e.g. by forcing it to focus on the flat surface of the screen when observing a moving image with a deep depth of field. Furthermore, as an archival tool collecting live recordings from the street, the webcam network and its storage system should not be regarded as memory prosthesis, because this tool most definitely affects memory. In conclusion, rather than merely fulfilling the use for which they were primarily conceived, webcams as optical devices and producers of archival materials have created a realm that did not pre-exist their birth, and which was from that moment on formally unforeseeable. Even if they emerge from a proto-cinematic mode of existence, webcams are creating a new phase in the cinematic dimensionality of contemporary urban life with moral and ethical implications. It is interesting to return to Latour's status of the tool, when he notes that:

If we fail to recognize how much the use of a technique, however simple, has displaced, translated, modified, or inflected the initial intention, it is simply because we have 'changed the end in changing the means', and because, through a slipping of the will, we have begun to wish something quite else from what we at first desired.²⁰

A collective amnesia appears to occur when it comes to realizing the impact media technologies may have on subjectivities, desire and expectation. According to Latour, the circumstances of creating a tool have been altered by the tool itself, to the extent that the aim at the origin of its making can no longer be recalled. Surveillance cameras primarily intended for protecting people in the streets, which entailed prompting action upon suspicious on-camera movement, have metamorphosed into the production of future visions. Ensuring the safety of the present moment is no longer the center of concern, whereas preemptive action is. The medium simulates a potential that curbs itself as a result: by knowing that they are being observed, individuals allegedly do not commit crimes.²¹ However, another side effect of this tool creation is that people's desire to see and to be seen has become more noticeable, since video-surveillance has come about and contributes to the dissemination of webcams, resulting in artworks that appropriate surveillance and webcam imagery, as well as the emergence of online real time documentary forms.²²

To sum up, the technology of the webcams should not be considered as merely functional or *technically* neutral, since it has created unforeseeable results that have altered the urban space, thereby affecting the ways in which people act in public places.

Dissertation Overview

My research project aims at analyzing the webcam as an emerging cinematic medium: its construction, as well as its impact on the contemporary urban mode of existence. As such, I will focus on specific "actants," in a Latourian sense that together form the apparatus of this new mode of networked filmmaking that affects both the online and the offline world.²³ These actants are the affected cameras (in relation to what is in front or behind them), surveillance and panopticism, the film apparatus, a specific form of (chronotopic) temporality, archival modes, and, finally, the filmmakers and artists working with the aesthetic potentialities of these media.

Since this study starts with the premise that there is at the basis of

21 William Bogard, *The Simulation of Surveillance: Hypercontrol in Telematic Societies* (New York: Cambridge University Press 2010).

22 *Lifecasting (video stream)*. Accessed September 15, 2014, [http://medilibrary.org/medwiki/Lifecasting_\(video_stream\)](http://medilibrary.org/medwiki/Lifecasting_(video_stream)).

23 Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (Oxford, New York: Oxford University Press: 2007).

The Actor-Network-Theory explores the relations between "actants" within the network. These actants consist of human and non-human actors.

webcam pervasiveness an affective relation to the medium, the steps I take in this dissertation originate on a more personal level. As such, the first chapter entitled “Video Surveillance Versus the Affected Personal Cam,” aims at approaching the ownership of the webcams by analyzing the different degrees of affect they possess. By studying works on affect theory, more precisely Brian Massumi’s writings on the topic, I maintain a differentiation between surveillance cameras, CCTV and publicly accessible webcams, in order to define the level of attachment a company or an individual may have towards a camera, as well as the affects thereby produced. This differentiation offers itself as a theoretical framework for studying the specific affected ownership of the camera and the purpose of positioning a streaming video device in an urban area. I will not only analyze the produced content and its forms, but also the role of the observer and the ways in which this role can at times be inverted.

Stepping back from the intimate realm of individuals’ relations with their cameras, I will in the second chapter, “Post-Panopticism and the Attention Economy,” analyze the contemporary state of surveillance, which is situated in the social realm, the collective experience of a world pervaded by audiovisual documentation collection and distribution. This chapter engages with the primary function of video-surveillance and post-panopticism in order to understand the impact these cameras have on the reorganization of time and space, and consequently on people’s behavioral patterns in the street. In order to do so, I will study the transition from the Panopticon, as theorized by Michel Foucault, to the post-panopticon of maximum surveillance, according to which human beings have become identified with the data they produce. A central character in this scenario is the “data double,” which stands for the *shadow* of an individual that inhabits the virtual world, imbued with a large degree of credibility while categorizing of all the activities that form a digital footprint.²⁴ The data double is constructed by metadata that include the actual image of an individual constantly recorded by video surveillance. The chapter will further delve into the position of webcams within the attention economy, by comparing their audiovisual production to that of classical cinema and the expanded forms thereof. Drawing on Jonathan Beller’s book *The Cinematic Mode of Production* (2006), which analyzes the contemporary heightened form of capitalism that has monopolized eyes and colonized synapses, the present study will further emphasize the webcams’ contribution to present-day systems of capital production with their continuous captures and streams.

24 David Lyon, *Surveillance Society: Monitoring Everyday Life* (Buckingham-Philadelphia: Open University Press, 2011).

Following this general view on the status of the contemporary forms of the Panopticon as source of mass entertainment, it is imperative to specify the ways in which traditional analog film cameras have metamorphosed into webcams, and to understand the consequences for contemporary filmmaking. In the third chapter, entitled “From Cinematographic to Cinematic Apparatus,” I define the cinematic potential of this emerging cinematic medium by analyzing it as an apparatus with an apparently seamless mode of operation. Jean-Louis Baudry’s writings on the classical cinematographic apparatus are used to isolate the technical aspects of webcams, including the roles of the camera, the projector and the screen, in order to enable a deeper insight into its specificities as a medium that generates meaning.²⁵

One characteristic of this new cinematic medium in relation to surveillance and the documentation of urban life is the emergence of a temporality that fuses pre-existing filmic forms of time with Internet time. In the fourth chapter, “Cinematic Chronotopes: Temporality of the Cinematic Mode of Existence of the Webcams,” I deconstruct the generally accepted notion of temporality that supports the alleged documental value of such imagery, i.e. real time. In order to analyze the specific temporal form of webcam footage, I synthesize the notions of cinematic time (the single shot) and network time (global time and transmission) into the conceptualization of a third term: *Realttime*. The latter consists of a temporality that includes delays in transmission, disguised by an apparent immediacy, and stands at the basis of the webcam’s potential to generate *chronotopes*, i.e. time-space narrative units. Borrowing from the writings of Mikhail Bakhtin, I further propose to consider images captured and streamed by webcams as consisting of chronotopes not unlike those existing in literature, film and expanded cinema. In this manner, I argue that webcams construct a *fictional* documentary reality produced by a narrative *dispositif*.

Following from this, it is also important to research the locations where footage is stored, the ways in which it will be accessed in the future and towards what ends. Chapter five, “Webcams and the Archive,” concentrates on delineating the instances of digital archiving of webcams’ cinematic account of reality. For this purpose, I study and compare both former and recent approaches to the archive of time, both in analog film and in digital media. In order to challenge the claims that cinematographic referentiality would be lost when transitioning from analog to digital, I reevaluate the linguist Charles

25 Jean-Louis Baudry, “Ideological Effects of the Basic Cinematographic Apparatus,” in *Narrative, Apparatus, Ideology: A Film Reader*, ed. Philip Rosen (New York: Columbia University Press, 1986).

Peirce's notion of the index as trace and as deixis by applying it to both analog and digital footage. Furthermore, I analyze theories that consider digital platforms as immaterial, and regard data as unchanged when traveling across storage media, to oppose views that attest to the materiality of the digital. Wendy Chun's writings on code as matter as well as Matthew Kirschenbaum's ascertainment that data can be retrieved beyond erasure help demonstrate that the digital also possesses an inherent traceable material constitution.²⁶ This materiality allows for the construction of an ever-growing archive, in which digital signals are stored and can be retraced in the future. However, this archive has lost some of its classical linear narrative and, instead, has adopted a database logic. In the chapter, I will further analyze the way in which this logic may still be dictated by authorities that own the archive, but which have had its narrative linearity replaced by the seemingly endless possibilities of algorithmic recollection of data stored in all corners of the network. These vast amounts of personal data that leave traces on every visited platform are stored in millions of dormant, yet pulsating hard drives inside gigantic cooled data centers, waiting to be accessed.

In the sixth chapter I look at the aesthetics of webcam footage within the context of precarious archival imagery sources that is appropriated in politically engaged art. The visual material generated by various forms of mass media may acquire myriad combinations, such as in the work of Hito Steyerl. It may also serve to attest to the construction of cinematic spaces as in the works of artist Harun Farocki, or it may exist to make us understand the intangibility of the experience of war, as seen in Walid Raad's work with the Atlas Group Archive. Differing in kind and in statement, what these three approaches share is the choice for the precarious visual material they use. This mainly consists of low-resolution imagery that has often been produced by deficient optics, repeatedly copied or inadequately archived, resulting in "poor images" full of glitches and noise.²⁷ This visual material displays a precarious aesthetic where the mode of operation of the medium itself is inscribed in the materiality of the imagery and is, therefore, inherent to it.²⁸ The chapter further emphasizes how the choice to use such footage constitutes a political standpoint within a cinematic mode of existence pervaded by the audiovisual input and output of archival materials.

26 Wendy Chun, *Programmed Visions: Software and Memory* (Cambridge, Massachusetts and London, England: The MIT Press, 2011).

Matthew Kirschenbaum, *Mechanisms: New Media and the Forensic Imagination* (Cambridge, Massachusetts: MIT Press, 2008).

27 Hito Steyerl, "In Defense of the Poor Image" *e-flux journal* no. 10 (2009), <http://www.e-flux.com/journal/in-defense-of-the-poor-image/>.

28 Arild Fetveit, "Medium-Specific Noise," in *Thinking Media Aesthetics: Media Studies, Film Studies and the Arts*, ed. Liv Hausken (Frankfurt: Peter Lang, 2013).

Finally, I will retrace the steps taken in chapters one to six by analyzing a cinematic medium stemming from panoptic principles but disseminated by a mode of production that is based on affect. With great effect on contemporary societies by influencing subjectification, webcams have contributed to the emergence of the contemporary cinematic mode of existence where production, consumption and simultaneous archiving take place.

Chapter 1

Video Surveillance versus the Affected Personal Cam

To begin my analysis of the webcam as an emerging cinematic medium I distinguish between webcams and CCTV. Once this distinction has been established I examine the relation between owners and cameras to identify the origin of different levels of affect with repercussions on individual behavior in the public spaces.

1.1 Internalizing the Camera

In this first chapter, I take the more personal relation held by many towards cameras as the point of departure, by exploring issues of ownership as well as examining the ways in which an awareness of constant observation affects people in the streets, i.e. the ways in which this awareness influences processes of subjectification. In a world where cameras are ubiquitous, people have grown accustomed to the less-than-invisible presence of these cameras, even when they choose to remain oblivious to the influence they have on their daily routines. The simple presence of this multitude of cameras makes the world cinematic, even if the devices may not be switched on, connected to a recorder or monitoring facility.

This means that the world is expected to be filmed, regardless of whether that potential ever becomes actualized. As a consequence, the pervasiveness of the cameras has created concerns about issues pertaining to the privacy of the individual. Such issues have preoccupied legislators and philosophers alike, but have also been addressed by artists. Already in 1969, the performance artist Yoko Ono made a film together with her husband entitled *Rape* (**Fig. 1**), in which she openly criticizes the media's disrespect for personal privacy.

At the time, the primary concern of Ono, a media personality, was the expression of personal frustration due to the constant scrutiny of her private life by mainstream media. The film depicts a woman in a state of distress, as she is stalked by a camera crew, not only on the street but also in her house, where the camera is aggressively forced into her face. By showing her discomfort throughout the film, particularly as the film crew invades the intimacy of her home, *Rape* echoes concerns about the violent aspect of the loss of privacy in a highly mediated society.

Today, almost a half century later, video surveillance pervades all levels

Fig. 1 Two stills from a critique of intrusive media in *Rape* (Yoko Ono 1969).

of life, and people have grown accustomed to the ubiquitous presence of cameras. Webcam-generated video streams that are continuous and seemingly endless bear witness to the fact that surveillance practices are becoming increasingly internalized: people appear to welcome the presence of cameras, thereby accepting a constant exposure of their everyday life. One particular symptom of this condition would be the trend of individuals broadcasting themselves via webcam on the Internet. By engaging in variable degrees of filmmaking complexity, specific to producing documentaries and art projects, these Internet users create hybridized film-based genres. An extensively documented example of this growing trend is Jennifer Ringley or “Jenni,” a college student who installed a permanent set of cameras in her dorm room which were streaming live between 1996 and 2003 (**Fig. 2**). Her website hosting these camera streams, JenniCAM, developed an extensive following and gained a high degree of fame.¹ When asked about why she gave up her privacy in such an uninhibited way, Jenni said: “I don’t feel I am giving up my privacy. Just because people can see me doesn’t mean it affects me. I’m still alone in my room, no matter what.”² In her statement, Jenni’s attitude is in direct contrast to that of Ono: for her, privacy no longer seems to constitute a pressing issue. Within the contemporary cinematic realm of ubiquitous webcams, it becomes increasingly apparent that a growing number of people, rather than feeling that their private space is being invaded by the constant presence of cameras recording their every action, appear to actually desire this presence as a part of their lives, even beyond any usefulness as a safety measure.

In specific cases, undergoing the experience of being filmed night and day enables a far-reaching contemporary form of self-promotion and constitutes a way, for many people, to leave traces of their existence in digital archives, constantly expanding with material provided by these cameras.

During an interview with David Letterman, Jenni expressed the purpose of her webcam initiative: to document real life in all aspects including studying, watching television, doing laundry, undressing, and masturbating.³ By positioning cameras in her living quarters and streaming images around the clock, she has earned the status of a conceptual artist and became the first

- 1 JenniCAM, *Last Week at Jenni’s Place*, viewed March 17, 2014, <http://www.arttech.ab.ca/pbrown/jenni/jenni.html>. The JenniCAM is no longer online but this is a site dedicated to its last days displaying stills from the cameras.
- 2 Victor Burgin, “Jenni’s Room: Exhibitionism and Solitude,” *Critical Inquiry* 27, no. 1 (2000): 77–89, 78.
- 3 JenniCAM’s Jenni on Letterman’s Late Show, <http://www.youtube.com/watch?v=0AmIntaD5VE>. This interview with Jennifer took place two and a half years after she started to stream footage from her apartment twenty-four seven.

“lifecaster,” which transformed her proto-filmic endeavor into a worldwide phenomenon followed by millions.⁴ Jenni’s story and those of many other lifecasters serve to demonstrate the ways in which the discourse around video surveillance has shifted its focus from issues of safety and privacy to concerns that scrutinize this new medium’s potential for communication and creativity. Instead of feeling threatened by the camera, lifecasters welcome its presence.

Fig. 2 Jennifer Ringley in her dorm room streamed by the JenniCAM.

Most authors do not differentiate between closed-circuit television (CCTV) and webcams. They refer to both types of video device as “surveillance cameras” and tend to focus on a generalized definition based on primary function rather than their networked aspect and accessibility. This view of both camera types is exemplified by William Webster, who states that “[t]ypically they have been introduced to assist in the ‘fight against crime’, mainly to deter and detect crime, disorder and antisocial behavior, but also

4 *Lifecasting (video stream)*, [http://medlibrary.org/medwiki/Lifecasting_\(video_stream\)](http://medlibrary.org/medwiki/Lifecasting_(video_stream)). This website describes Lifecasting as ‘a continual broadcast of events in a person’s life through digital media. Typically, lifecasting is transmitted through the medium of the Internet and can involve wearable technology. Lifecasting reverses the concept of surveillance, giving rise to sousveillance through portability, personal experience capture, daily routines and interactive communication with viewers.’

to help reduce the 'fear of crime'.⁵ Surveillance cameras thus presuppose an authority surveilling a particular area for the purpose of public safety and pre-emptive action against potential deviancy; whether or not these cameras actually counteract the fear of crime is disputable. Regarding issues relating to the intentionality of the user, which are central to the present research, a distinction between CCTV and webcams is required; the latter category includes all cameras constantly streaming imagery over the Internet, whether or not the content is privately owned and/or involving a governmental authority.

Video cameras ordinarily used for surveillance tend to be low-resolution optical devices, streaming images to a monitoring center where the data they produce are collected, archived, and eventually categorized. For both cases, i.e. CCTV and the webcams, there is no distinction at this point. Beyond this description, however, the two camera types branch off. As its name suggests, CCTV is exclusively confined to closed circuits, which are by definition localized and isolated; in contrast, webcams are globalized and accessible, streaming live over the Internet. Further still, the string of data streamed by webcams has increasingly been joined by audio signals. Additionally, with increasing technological development some webcams have reached the level of standard television in terms of image quality. For example, when one accesses the Earthcam website and interacts with a set of eight cameras streaming from Times Square, these webcams transmit high definition images and stereo sound at a competitive refresh rate, and some cameras even have a 3D option.⁶

Official reasons for the widespread presence of surveillance cameras are generally tied to public safety strategies, anchored in risk management as pointed out by Webster. However, an urgent problem arises when one attempts to examine surveillance cameras and their footage more closely: as cameras proliferate on the streets, their owners become increasingly hard to identify. When spotting a camera in a public space, one might immediately assume, though it is hard to prove, that this is a surveillance tool pertaining to some form of authority, most likely a governmental institution. Or, one might wonder whether it belongs to a company, concerned primarily with monitoring consumption for marketing purposes, rather than crime prevention.

For the sake of argument, let us assume that the general purpose

5 William Webster, "CCTV policy in the UK: reconsidering the evidence base." *Surveillance & Society* 2, no. 2/3, (2004): 10-22, <http://library.queensu.ca/ojs/index.php/surveillance-and-society/article/view/3400/3363>.

6 *Earthcam*, accessed April 23, 2012, <http://www.earthcam.com>.

of surveillance cameras is crime prevention. If I take for granted that these cameras exist as a pre-emptive measure to avoid future forms of deviance, then I should be able to trust the fact that someone is always watching. Were this the case, then a second instance of trust is required, namely that action will be taken, as Hella Koskella points out, should something happen in front of these cameras.⁷ One should therefore assume that whoever owns the camera in question should be in charge, not only of monitoring the imagery in real time, but also of the fate of the images being recorded. However, this assumption may not lead to a rigorous definition of these cameras based on ownership, precisely because it is presently almost impossible to determine who will monitor these images, neither are the means of storage and consequent categorization of the imagery straightforward. As David Lyon argues in *Surveillance Society: Monitoring Everyday Life* (2011), the legal owners of such images resemble an assemblage of “leaky containers,” making an *a priori* classification of the fate of the ever-generating data collection close to impossible.⁸

In order to distinguish these cameras based on ownership, one should attempt to classify CCTV as cameras belonging to some form of governmental authority or private business. These are mostly in use for policing and public safety, and their imagery is not streamed on the Internet. When it comes to webcams, the issue of ownership becomes harder to tackle, since these could be owned by virtually anyone. They are technically similar to CCTV but generally tend towards the lower quality end of the spectrum, as cheaper models make affordable options for most households. The owners of these webcams might range from proprietors of commercial venues to ordinary people in private homes.

As I mentioned earlier, there is an overlap between webcams and CCTV, except when Internet transmission is concerned. Because of the webcam’s more loosely defined function, situated between crime prevention and entertainment, as well as its increased access and visibility, which potentiate its affective dimension, I take it as a central concern in this present research. Unlike several scholars, including Paul Virilio, Lyon, Clive Norris, and Gary Armstrong, who tend to discard any differentiation between closed circuit surveillance systems and webcams, Fernanda Bruno introduces a content-based distinction that I consider of relevance in identifying the

7 Hella Koskella, “‘Cam Era’– the Contemporary Urban Panopticon,” *Surveillance & Society* 1, no. 3 (2003): 292–313, <http://library.queensu.ca/ojs/index.php/surveillance-and-society/article/view/3342/3304>.

8 Lyon, *Surveillance Society*.

personal aspects of webcam streams.⁹ According to this view, CCTV cameras collect imagery from public spaces, while webcams are commonly regarded as documenting the private or semi-public space. However, in her definition Bruno appears to understate the role of ownership in determining the difference between CCTV and webcams. As she defines, surveillance cameras collect imagery from public spaces, which automatically identifies them as property of some form of governmental authority engaged in public safety and pre-emptive action against potential deviancy. On the other hand, webcams, which are turned to a more intimate realm, may be privately owned by people who film their personal environments.

While I will follow Bruno's views to some degree, I take practice-based experimentation with the medium as my point of departure in this dissertation, and therefore argue that private ownership frequently covers domestic and intimate environments but does not exclude public content. The owners of the webcams I analyze range from business entities to private homes, and their purposes vary from overseeing a bar in the Czech Republic to monitoring the weather on the Dutch shore, from photographing a garden in the U.S. to watching the woods in Canada or filming from a moving vehicle in a safari resort in Kenya. Thus, I have observed that the alleged function of the webcam oscillates primarily between entertainment and publicity. The aforementioned Earthcam serves as an example of this grey zone, as it generally displays privately owned cameras that lack any formal or content-related distinction that could set them apart from surveillance cameras. These hosted webcams are not officially owned by a potentially global government to police the streets and identify targets of concern. It is mainly ordinary households and small businesses that own these cameras; nonetheless they still film in public spaces without distinction. In reality, through its interface Earthcam provides access to thousands of webcams that constantly stream imagery from hotel beaches, private backyards and city streets alike – allegedly for entertainment purposes only.¹⁰

Besides those offered by Earthcam, there are many other webcams that serve as examples of seemingly harmless Internet-based devices that nevertheless frequently collect imagery from the public domain, streaming footage of people sitting in cafes or shopping in the streets. For this reason, Bruno's definition, which limits webcam content to that which is generated

9 Fernanda Bruno, "Dispositivos de vigilância no ciberespaço: duplos digitais e identidades simuladas." *Revista Fronteiras – Estudos Midiáticos* 8, no. 2 (2006): 152-159, <http://revistas.unisinos.br/index.php/fronteiras/article/view/6129>.

10 *Earthcam*, accessed April 23, 2012, <http://www.earthcam.com>. Earthcam itself owns a very small portion of these webcams, since the majority of its imagery is actually generated by other companies and private individuals that pay a hosting fee.

within a private environment, is too narrow to encompass the multiplicity of intentionality and ownership regimes entailed. As I have argued, moreover, a definition that relies solely on ownership appears equally reductive. In order to accommodate for the complexities involving webcams, it is therefore indispensable to include in this definition the relation between the conditions of both content *and* ownership. As I will demonstrate subsequently, this approach will involve an intentionality based on affect that impacts both the streams and the perception of the imagery.

Affects and the Cinematic Potential: Affected Personal Cam 1.2

In this section, I examine the possibility of categorizing a webcam as an *Affected Personal Cam* when the relationship between the owner and the camera is of an affective nature. This relationship influences the roles played by the owner, the people being filmed, and the viewer during the production and transmission of footage.

The Owner as Embryonic Filmmaker 1.2.1

Aside from my general interest in webcams as an artist, in this current research I engage in the study of what I propose to call the Affected Personal Cam. This category comprises cameras owned by private individuals who themselves remain outside of the camera's gaze. These cameras are typically pointed towards spaces such as the office, backyard, or residential street of their operator. Although these locations appear at first to be impersonal, the captured imagery discloses some intimate facts about the owner of the camera, even if the viewer might never knowingly see this person. An interesting example of such a camera is the DonnieCam, named after its owner Don,

which shows views of the Prinsengracht in Amsterdam in images that are very filmic in kind.¹¹ Within its frame, people can be observed walking up and down the bridge over the canal, along with several bicycles and cars passing by. The act of watching this video stream triggers questions pertaining to the motivation behind the placement of the camera: what drove Don to do it, and why did he choose to divert the camera from himself or his building? One could speculate that Don may be proud of the place where he lives, on one of Amsterdam's four main canals, and that he wishes to share this with the world by streaming raw uncut footage. He may even wish his single shots be considered as cinematographic materials. Another hypothesis is that he may have already anticipated that other people, for example artists, would use his camera for creating aesthetic objects and staging live performances. Should this possibility reflect his intentions, Don could be considered some sort of art facilitator, a self-made curator, or even a collector, considering that he has been saving his streams, which he now presents in a time-lapse loop on the website. In any case, it appears that Don desires to be acknowledged by and through the camera, which he affirms by simply owning one and pointing it at a part of his world.

The case of the DonnieCam highlights the difference between the degrees of emotional attachment a private owner might feel towards his own webcam and that of companies and governments in relation to their cameras. This emotional attachment charges the footage with affect, which influences the intensity of the imagery. Don's act of pointing his webcam at the street offers users the chance to look through his eyes and watch life unfold every day in a single shot, in the same way that he himself perceives it when staring out of his window. When I used to watch these streams, it felt as though I was peeping into a piece of Don's most intimate world: seeing a proto-film through his camera's lens as through his eyes. One can find information on Google, sometimes contradictory, about the DonnieCam's inception. The following description, provided by an alleged friend of Don's who apparently used to visit Amsterdam, best suits my experience:

11 *The DonnieCam*, <http://donniecam.akikowaka.com>.

Allegedly the first live-streaming webcam in The Netherlands, the DonnieCam is no longer capturing and streaming online in real time. The last time I accessed it, the site showed the time-lapse of an old 2010 stream where one can see a group of young people making a big chalk drawing stating 'Donnie, are you there?'; 'Nice to meet you'; and, 'I am watching you'. Several people have used this cam for making art and some sort of live action. The presence of the old stream testifies to the fact that the footage has been recorded and can be used at any point for any sort of information collection or categorizing. This older imagery also shows how a camera can become a tourist attraction. When Googling the Donnie Cam one will encounter videos made with this webcam as a theme – i.e. people sitting close to where they thought the location of the camera would be and waiting to wave at whomever may be observing the streams.

[w]hen I was visiting Don, I loved looking out of his window. It was almost as if I was watching a stage, complete with actors, props, lighting et cetera. The scene started the moment I looked and ended just as easy when I didn't. The camera enabled me to do the same, but remotely... Although I watch the crappy webcam every day, the magic stays and has even gotten more magical. While many people watch these days, others use the stage for their performances. Some only wave, where others use the stage ambitiously ranging from a division of the image with a white line, to large, colorful drawings on the pavement.¹²

This blog post is an account of a personal relation to what was perceived as a film taking place in real time, i.e. uncut. In this description, a transformation of the potential film into actual filmic material seems to be an easy step to take: positioning a camera at the window creates actual footage for remote observation. Differently from a business-oriented company, the owner of a Personal Affected Cam thereby instantly turns into a filmmaker of some sort, by choosing to capture and stream imagery from his street corner in order for others to experience actions taking place at the Prinsengracht. From this perspective, I consider Don's placement of the camera to be imbued with a conscious directorial intention towards the framed and streamed image material it produces. A camera capturing and transmitting in real time produces, perhaps not a film yet, but what can be considered a proto-film.

Don's intention to stream and show reality as it develops in front of the camera constitutes an embryonic cinematic act as conceptualized by French film critic André Bazin.¹³ In *What Cinema Is!* (2010), Dudley Andrew elaborates on the critic's views and writes that 'in whatever manifestation or period, real cinema has a relation to the real'.¹⁴ For Bazin the filmed image has its roots in adjacent reality.¹⁵ In the case of the DonnieCam, capturing reality is its main *raison d'être*, producing a flow of imagery that could possibly become a seemingly endless documentary film. In the search for similar filmic experiments in the past, the stream of the DonnieCam is imbued with an

12 *DonnieCam*, accessed March 17, 2014, <http://www.travelingthroughthelens.com/blog/donnie-cam>.

This is a quote by someone who is referred to on the site as 'one of Don's mates'. The quote has no date. Even though I researched other sources I have not yet been able to make out whether this is the true origin of the camera or not. If so the camera has been active between 2005 and 2013.

13 André Bazin, *What is cinema? Vol. 1*, trans. Hugh Gray (Berkeley: University of Chicago Press, 2004).

14 Dudley Andrew, *What Cinema Is* (West Sussex: Wiley-Blackwell, 2010), xxv.

15 Bazin, *What is Cinema? Vol. 1*.

intentionality comparable to the premises underlying the first *cinéma vérité* films. As in *cinéma vérité*, the main purpose of filming with a webcam is to show reality, with any interference with the action being filmed, other than the presence of the camera itself, kept to a minimum. As Steven Mamber defined *cinéma vérité* in 1976:

[t]he essential element in *cinéma vérité* is that of filming real people in uncontrolled situations. ... In a *cinéma-vérité* film, no one is told what to say or how to act.¹⁶

Even though this citation is a simplified fragment of a more complex definition, it points to the similarities between webcam film experiments and *cinéma vérité*. In fact, the camera is central in both cases, as it alters the behaviors of people who become aware of its presence. And yet, there is no active directorial intervention. This is to say that, beyond the intentionality of placing the camera, Don is not actively directing the people in the streets outside his window. He is not telling the “actors” in his film what to do, neither is he controlling the *mise-en-scène* beyond framing.

Indeed, definitions of *cinéma vérité* have influenced webcam and CCTV filmmaking, themselves both contemporary cinematic forms that rely in a similar manner on capturing real live action taking place in real time with real people. Manu Luksch, a CCTV filmmaker and director of *Faceless* (2007), a film exclusively made with surveillance footage, published a manifesto in 2006 containing statements that echo several principles of *cinéma vérité*.¹⁷ One of these statements upholds that, for both *cinéma vérité* and CCTV filmmaking, the material gains meaning only after the editing process, due to the automatized and thus seemingly detached image capture. The manifesto, however, does not distinguish between CCTV and webcams and Luksch does not factor in cameras’ affects when considering production of meaning. As I have established before, the most salient difference between making films with webcams (particularly the Affected Personal Cam) and CCTV is that, besides the networked aspect, the former is owned by a private individual whose relation to the camera imbues the footage with affect. Whether or not it is an artist observing the footage of a webcam, this person is already in touch with deeply charged material, which is meaningful in its own right and carries the affects and percepts that moved the owner to choose the

16 Steven Mamber, *Cinema Vérité in America* (Cambridge: MIT Press, 1976), 2.

17 *Manifesto for CCTV Filmmakers*, accessed March 18, 2014, <http://www.ambienttv.net/content/?q=dpamanifesto>.

position of the camera, thereby carefully defining its line of sight and how it frames the object. According to Luksch with CCTV a film only happens after the appropriation of the material, whereas with an Affected Personal Cam the viewer is already watching a proto-film, as the affects are inherent to the feed streamed by the camera. In conclusion, the Affected Personal Cam films reality with minimum intervention as in *cinéma vérité* but its stream is strongly imbued with meaning and affect before the editing process begins.

A Camera of Affects

1.2.2

Affect is a central concept in the existing discussion of webcams and their potential as cinematic medium. However, the footage generated by these cameras carries differing degrees of affect originated by the ownership conditions of the filming device. When analyzing the concept of affect and percept in the arts Gilles Deleuze and Felix Guattari have pointed out that “affect goes beyond affections no less than the percept goes beyond perceptions. The affect is not the passage from one lived state to another but man’s nonhuman becoming.”¹⁸ In short, when experiencing an artwork (including film), the viewer is moved by what the artist felt or perceived during the creative process. According to Deleuze and Guattari, this takes place at a pre-individual level. The affects and percepts reside somewhere in between the artwork or film and the person encountering and experiencing it. In a similar way, the observer of webcams is affected by visualizing the imagery produced by these cameras. As stated in the introduction, if the webcams are seen as a Latourian tool, they create universes that did not pre-exist their own making.¹⁹ Here, too, these cameras create affected and previously inconceivable realities, as they are influenced by modes of ownership and spectatorship. In the present section, I analyze the ways in which webcams produce affected material at every stage involved in capturing the image, even down to the viewing.

There are five instants when a webcam may contribute to producing affect: when the footage is created, when people are aware of being filmed, when the streams are viewed, when the material is appropriated by an artist, and, finally, when the public encounters the artwork created out of webcam footage. These five different moments, which I discuss subsequently, imply the

18 Deleuze and Guattari 2011, 173.

19 Bruno Latour, “Morality and Technology, The End of the Means,” in *Theory, Culture and Society*, no. 19 (2002): 247-260.

involvement of a variety of subjects: first, the owner of the webcam, second, the people in the streets, third, the viewer, fourth, the artist, and fifth, the art public. Ultimately, the body of the camera forms an overarching meta-level that involves all other subjects.

Let us begin with the first moment: the stream of a webcam is affected by the purpose attributed to it by the owner. One could say that this footage only becomes affected when there is a clear personal intention behind the placement of the webcam. An example is the Osprey Camera, an Affected Personal Cam whose footage I have used for an artwork in 2013 as part of the present practice-based PhD project.²⁰ This camera is placed in an eagle's nest in Estonia with the alleged single purpose of gaining knowledge about these birds' way of life (**Fig. 3**). While the intention differs significantly from the purpose of placing a camera in someone's backyard in order to observe the visiting fauna, this particular stream has a personal feel to it that exceeds the apparently scientific or commercial interests at stake. Belonging to a collective of bird-watching enthusiasts, this webcam "lives" inside the birds' nest and documents every single moment of their lives. Still active at the time of writing this dissertation, the audiovisual stream observes the birds' routines unfolding, including feeding, mating and hatching eggs, and eventually documents the way the adult birds care for their babies. The imagery is rather crisp due to the altitude of the camera, displaying a view over the forest's treetops, a real bird's eye view. The eagles appear to be aware of the presence of the camera, as they occasionally directly stare into the lens, straight at the observer behind the computer screen. Yet they do not seem threatened, nor does the camera impede their chores: the eagles appear to share their nest with ease. The live stream consists of a raw single shot, uncut except for the sudden transmission failures. Even if the imagery is of a documental nature, the stream is still a proto-film and, thus, not yet a formal documentary.

The owners of this webcam have contributed to creating a hybrid form by positioning the camera in the eagle nest. The difference between, for example, a nature documentary and this particular case is anchored on intensities that disrupt any attempt at conceptualizing this proto filmic experience within an existing narrative format. In the former, the narrative format is clear: it is a narrated fictional construct of the representation of life, in which the birds live until they eventually die. The comforting all-encompassing linear dispositif teaches about the natural cycle of life

and death. But in the live stream of the webcam, there seems to be no predictability. This produces a layer of intensity that imbues the material with affect. The time-span of bird life unravels in real time, implying daily visits to the stream in order to follow the pure drama as it unfolds before one's eyes. There is neither certitude nor logic that can apply to what is seen on the computer monitor. Furthermore, there appears to be no intrinsic sense to the events in the observed imagery, making the relation between the viewer and the birds practically unmediated, as it lacks narrative conscience. What makes the viewer regularly return to watch the stream is the pure affect that is originated by the action of the collective to place the camera to track every action of the eagles they aim to protect.

If we carry on trying to find matching film genres, the closest *docu-fiction* format to this stream would be that of a *reality* soap opera, watched on a daily basis for months by its makers, i.e. owners of the webcam, but with only one storyline instead of the usual variety of several characters. Yet this initial attempt at categorizing the Osprey Camera's live feeds as "real-time-bird-soap" nevertheless fails to encompass the relations that are forged between the simultaneous owner and viewer and the camera. While observing such a live stream, the viewer may be filled with emotion, watching the birds survive dreadful storms as they hatch their eggs. When they feed their newborn babies, the parents are unaware of the emotional states they simultaneously evoke in the followers of their animal family saga, which have been multiplied by the Internet streaming of these images.

There are other levels of affect that are produced during the simultaneous stages in webcam streaming and perception. The second occurs when cameras capture and stream images from people in the streets. Many people may not yet be aware of constant surveillance; however, some definitely are and act upon it. People in the streets, in this case the objects of observation, may actually choose to intervene in the perception of their image. From performative acts to merely wearing specific clothing that interferes with camera vision, the affects generated at this point add a second layer to the first level created by the owner of the camera.

In a third moment, when it comes to the viewer observing the filmed material, one participates in the production of affects by attributing meaning to the image. The viewer perceives these two levels of affect already present in the imagery. This person may be a security guard, a ordinary citizen, or an

Fig. 3 Two stills from *Osprey Camera* in the Eagle nest.

artist: in any case, an individual who observes streams displaying imagery of individuals in public or semi-public spaces. At this point, several relations may develop between the observer and that which is observed, comparable to those of film spectators with the action on screen: identification, voyeurism, as well as more intense forms of scopophilia.

When, in the fourth stage, the viewer is also the artist, this observer will not only perceive but also add meaning to the images by appropriating them. This artist might choose a cut from a given stream, ranging from seconds to entire days, and place this cut within an artistic context, thereby elevating it to the status of appropriated material in artistic creation. The artist might also decide to use this form of found footage as the starting point for a film-based project. This can be achieved by using the camera in a more traditional way, i.e. as a machine producing raw filmic material, and by subsequently subjecting the footage to a post-production process that will transform it into a film or a video-installation. In the case of the DonnieCam, more than one artist or art student has performed in front of it, thereby using this webcam as a real time film recording and streaming device. An example of such usage is my film piece *Split Recognition* (2010) (**Fig. 4**). In this artwork the DonnieCam is the means for generating my prime-matter.

Split Recognition, a two-channel video installation, involves me stepping into the frame in order to direct myself as an actor. While producing the footage, I made conscious decisions about which image I intended to create by acting in front of the DonnieCam. I first used a smartphone to access the webcam online, so that I could watch myself in real time. I then employed a handheld video camera and filmed the footage that was streamed by the webcam. I literally walked around for quite some time, looking through the viewfinder of the video camera, which was glued to the screen of my smartphone. This action made me blind to the world around me, since I had decided to trust only what the Internet allowed me to see on the screen of my phone at that specific moment in time. Watching my own image as a constellation of pixels refreshed at uneven speeds implied that I needed to adjust my action and match the temporality of the transmission to aptly record every single movement. I slowly crossed the street several times, realizing that the evidence of my presence in a particular location depended on this medium's refresh rate. However, the stream froze in mid-action while I was filming due to a drop in the Internet transmission. Even though I was

again crossing the street, my image became motionless on the screen. As a consequence this gave me an almost schizophrenic sensation of being split between the material and the digital world: as I trusted the image provided by the Internet, I was calmly standing upright on the left side of the street. However, had anyone asked me at that moment where I was, I would have said I was moving towards the opposite curb. Where was I really? What evidence could be believed? Millions of Internet viewers could testify that I was seen on the left side of the street at that moment in time; yet, my own senses were telling me that I had in fact reached the opposite sidewalk shortly after the transmission had failed to refresh the image.

Fig. 4 *Split Recognition* (Paula Albuquerque 2010)

By emphasizing the positions of the individual and the person observing the streams this installation brings to the forefront the second and third levels of affect. By producing fourth level affects as an artist, I specifically intend to problematize the individual's awareness of the way in which the webcam's medium-specificity contributes to the construction of people's digital profiles. *Split Recognition* focuses on emphasizing the processes through which the Internet captures random data and thereby constructs fragmented

online identities. These are processes we contribute to when we allow webcams to capture our image. As this installation suggests, data collection occurs independently of one's personal experience and sometimes does not provide a correct translation of the events. In other words, this installation draws attention to the fact that webcams, specifically if used for surveillance, may provide an erroneous online representation of a person's existence, based upon a random assemblage of visual traces created by one's physical presence in the material reality. Moreover, it brings to the foreground the awareness of the camera as the first step to influence webcam image production and the affects this process entails.

Regardless of the aspects that the artist may wish to emphasize, the image resulting from artistic appropriation carries four levels of affection, which endow this image with a richness of intensities. To reiterate, these levels are, first, the affects originated by the owner, and second, the affects pertaining to the observed person. The third affective level is provided by the viewer, while the fourth level includes the affects of the artist while producing an artwork with this footage, thereby incorporating the previous three levels.

A final, fifth level of affect results from the encounter of the public with the artwork in an exhibition space, film theater or online platform. The fifth level of affect thus occurs in between the observer and the artwork created with the webcam, establishing a connection with the camera producing the footage, progressing through the artist (the fourth level of affect), the viewer (the third level of affect), the observed person (second level of affect), all the way to the owner of the camera (first level of affect).

There is another meta-level of affects attached to the body of the camera itself, which I will analyze in a subsequent section. For the moment, I will relegate the discussion to the relevant question of how surveillance has influenced the act of observation in general, whether it is by the owner of the camera, the person on the street, or the artist.

Observing the Observer Observing the Observed

1.3

The affects that originate from the relation between people and

webcam streams are central to the proliferation of the webcams. These relations derive from the intentionality to film others but also from the awareness of being filmed. It is thus relevant to examine the roles of the observer and the observed in this process. To begin with, even if these cameras are placed for issues related to security, it is hard to quantify the level of the public's perceived safety. What can be observed over time is that people become aware of the fact that they are being observed due to constant surveillance. They adapt and change their behavior, not perhaps directly due to a feeling of comfort in the presence of the cameras, but rather due to their natural ability to adjust as well and as performative beings.²¹ The phenomenon of lifecasters, which I analyzed earlier in this chapter, provides a suitable example of both an adjustment to a constantly documented reality and an increasing level of performativity. The main reason for the profuse proliferation of these cameras may thus be due to the dual role played by each individual in the urban space, both as Internet user and as city dweller, as observer of streams and as observed person in the streams – roles that frequently occur in simultaneity.

When people do not require surveillance cameras for their own protection, perhaps they desire the ubiquitous presence of webcams to document the existence of the world and their own existence in this world, in real time. By observing webcam streams online, the user constantly receives reassuring evidence that the city and its inhabitants are still there. The documental value of the webcam is undisputable and its range is all-inclusive. When stepping outside into the streets, the user is assuredly part of this footage that documents reality. The user thus exists both as observer, in front of the screen, and as observed whenever he or she enters the frame, and gradually becomes more aware of the possible roles to act out in the public space. By observing reality through the webcams the observer learns how to behave in places of social exchange overseen by the cameras.

In a world that has been emptied of all-seeing gods in the name of technological progress, global surveillance enables an omniscient acknowledgement of collective existence. As Astrid Schmidt-Burkhardt states in the article “The All-Seer: God’s Eye as Proto-Surveillance”:

The phantasm of omnipresence of the divine eye, evoked by the Christian conception of life, is well preserved in the modern police

21 José Van Dijk, “Reshaping Public Space in a Culture of Connectivity,” Keynote Speech, Media in Transition 8 Conference, Massachusetts Institute of Technology.
I am here loosely paraphrasing Prof. dr. José van Dijk when she mentioned the performing abilities of individuals who adjust to instances of surveillance.

state through the leading medium, the computer. ‘Seeing machines,’ which can be associated with highly technical as well as with moral expectations, take over the almighty function of control as a kind of public retina. In this systematic shift from hegemonical gaze to Deus ex machina, God is being replaced as the paradigmatic world observer by increasingly perfected techniques of illustrating the visible and invisible reality. The ties between vision and the eye are therefore irrevocably severed. The watchful eye of God meanwhile returns as the immortalized view offered to us by the camera.²²

This citation already evokes the topic of the Panopticon, which I will further develop in the following chapter, but it is helpful at this point to understand the acceptance of surveillance in terms of substituting for a protecting external entity in a godless world. In Schmidt-Burkhardt’s view, the eye of God returns through the omnipresence and pervasiveness of cameras. It provides cohesion to the world that is being observed. Moreover, she reminds us that the gaze of the cameras is immortal. In a society where no God watches over the world, these cameras ensure visibility and collective inclusion. In urban environments, people have their image recorded in numerous locations on a daily basis. According to the quote, the view of the cameras could be, like God’s eye, “immortal,” since these images of people may be recorded, categorized, and stored. Despite the fact that it remains at this point an arguable view that is hard to prove empirically, it is plausible that the streams of both CCTV and webcams are being stored systematically for future use, for example with face recognition software or other tracking algorithm-based tools, to which I will turn in the second and fifth chapters.

Besides offering proof of people’s existence in the world through visibility and enabling them to see others, webcams also allow people to see *themselves*. This can be achieved by stepping into the frame of a recording stream as I did in *Split Recognition* or as lifecasters perform during their feeds. By keeping a person’s image in self-generating audiovisual archives, forms of identity are being built according to the forms of existence that are acknowledged by the cameras. Beyond issues that relate specifically to the “selfie” already implied in filming one’s own image, it is the affective potential in broadcasting such imagery that makes active participation all the more

22 Astrid Schmidt-Burkhardt, “The All-Seer: God’s Eye as Proto-Surveillance,” in *Ctrl[space]: Rhetorics of Surveillance from Bentham to Big Brother*, ed. Thomas Levin, Peter Weibel and Ursula Frohne (Cambridge: MIT Press, 2002), 31.

valuable.²³ In the case of the previously mentioned JenniCAM (**Fig. 2**), the fact that so many people saw Jenni through her system of webcams made her life interesting. In this manner, the camera's potential for extreme visibility turned her existence from seemingly ordinary into an Internet broadcast phenomenon. Thus, the Internet at large as a pool of potential observers furnishes webcams with a comforting dual role: providing evidence of existence and offering widespread visibility.

The camera is an affected object, since it has become more than a mediating agent. According to the example of the lifecasters, people are aware of the potential of streaming cameras. When sighted, surveillance cameras provoke emotions from whoever encounters them: people may welcome or despise webcams and CCTV, but they acknowledge their presence. This entails that the individual being filmed is aware of potential observation and may choose to influence the image he or she wishes the cameras to capture. The pervasiveness of cameras gradually becomes more acknowledged, which stirs up feelings of responsibility towards one's future image, as this could, if it is stored, in all probability be observed at some point. Beyond lifecasting projects, people in public spaces create doubles of themselves for simultaneous or future observation.

Christian Katti performed a relevant analysis of the relation between observer and observed in his essay "‘Systematically’ observing Surveillance: Paradoxes of Observation according to Niklas Luhman's System Theory" (2002). He explains in detail the notion of "second-order observation," which occurs the moment one observes the observer: in the virtual gaze of the viewed subject. While deciding which role to play and which image to provide of the self, the person in the street may try to imagine who may be observing and, thus, observe the observer. This mechanism is important when researching webcams, as it contributes to the emergence of the subject and affects action in public spaces. The person being observed becomes the observer of whoever actually sits behind the screen. For example, people on the street who are aware of being filmed might wonder who this observer could be, or even how many of them there could be: a guard, a family, millions of Internet users, etc.

The American artist Bruce Nauman is considered the first artist to have built installations around the theme of surveillance, with a particular focus on the expectations towards the position of the observer. Dörte Zbikowski writes that:

23 The term "Selfie" here corresponds to the self-portraits people take with their smartphones and that have increased exponentially since the introduction of the front camera in these devices.

Nauman repeatedly creates new situations that focus on engendering uncertainty. Though the camera assumes the role of the observer, what we see are only sections, so the person observed becomes their own observer. What comes into play here is the tension between what the observer knows and the manner in which it is experienced. Situations arise which the observer cannot immediately understand, but which are nevertheless fascinating to construe.²⁴

In this description of Nauman's work, Zbikowski points to the observer's difficulty in determining the situations on display. That which is visible is subject to interpretation and therefore construed, which makes the observing person acutely self-aware. In fact, the observing person ends up observing his or her own act of observation. In the specific case of **Fig. 5**, the individual sitting on the chair should become aware of their physical position in this space in relation to the projections: they become aware of their status as observers.

Fig. 5 *Mapping the studio I (Fat chance John Cage)* (Bruce Nauman 2001)

24 Dörte Zbikowski, "Bruce Nauman: *Live/Taped Video Corridor* (1969-70) & *Video Surveillance Piece: Public Room, Private Room* (1969/70)," in *Ctrl[space]: Rhetorics of Surveillance from Bentham to Big Brother*, ed. Thomas Levin, Peter Weibel and Ursula Frohne (Cambridge: MIT Press, 2002), 67.

It may be argued that the observer of a stream is conscious of this status. However, it is relevant to consider the ways in which the dual role of observer and observed influence and interact with each other. Their relations of interchangeability and simultaneity are of particular interest to this dissertation.

Whenever a surveillance camera is spotted in a public or semi-public location (and more people seem able to sense these cameras, even when they are out of plain sight), the first thoughts that arise probably relate to a kind of “any-observer-whomever” who could be sitting directly behind the computer, scrutinizing the imagery. In the case of CCTV, paid security guards might be surveilling a video wall with multiple screens. In the case of webcams, anyone with a computer could potentially be observing, as well as recording every frame. This could be frightening, but it can also be a source of excitement. As Žižek puts it, “the most elementary fantasmatic scene is not that of a fantastic scene to be looked at, but the notion of ‘someone out there looking at us’; it is not a dream but the notion that ‘we are the objects in someone’s dream’.”²⁵ With this statement, Žižek claims that people who are being observed can peep into someone else’s perception (which he calls “dream”), and thus watch themselves being observed by another person, i.e. the observer.

As I pointed out earlier, the observer can in specific cases be an individual in self-observation, imagining his or her view from the “outside,” from the point of view of whoever might be observing. In the moment of self-observation, the individual becomes an Other, an object of observation. When people observe the image they imagine represents them on screen, they are split into the one who observes and the Other being observed. Moreover, this mediated version of the self, which gets stored as packages of data, entails significant and far-reaching consequences for both the material and the online world. In his book *Surveillance Societies* (2011) Lyon defines the construction of the self by surveillance and the collection of personal data by the term “data double”: a fragmented identity made up of data such as credit card statements, medical records, and video-surveillance. This constitutes a doubling of the self into a data-based entity.²⁶ Lyon’s data double is relevant to the analysis of the way in which individuals become the object of their own observation, even as they observe themselves being the observer of the imagery of themselves.

Via the constant presence of cameras, people are made to observe their otherness. This continuous self-gaze, based on the potential observation

25 Žižek, Slavoj, “Big Brother, or, the Triumph of the Gaze over the Eye,” in *Ctrl[space]: Rhetorics of Surveillance from Bentham to Big Brother*, ed. Thomas Levin, Peter Weibel and Ursula Frohne (Cambridge: MIT Press, 2002), 225.

26 Lyon, *Surveillance Society*.

by another observer, runs the risk of engendering a hype of generalized self-indulgence, in which people become obsessed with their *other*, the image of themselves as seen by the camera; their data-double, i.e. their virtual self. When people cannot get enough of subjectifying their (other) selves in an endless loop, this leads to an exacerbated concentration on the subject of the self, or of the self as subject. With an explicitly pessimistic tone, the French sociologist and philosopher Jean Baudrillard warns of the hypothetical dangers of an increased focus on oneself as sole object of interest:

So, there will soon only be auto-communicational zombies, with only the umbilical relay of the return image – electronic misadventures of deadened shadowy figures who, beyond the Styx and death, wander alone and pass their time by perpetually telling themselves their story. This will certainly develop further but only enough to give it, beyond the end, the retrospective illusion of reality – or the illusion of the social, but one evoked only in desperate interaction with itself.²⁷

In Baudrillard's gloomy forecast of a nearby future, which might already be our present day, narcissism isolates people in their obsession with a self-image that feeds them an endless feedback loop of self portraits. Neither alive nor dead, they are like zombies *undead*. They look like stale versions of themselves, consumed by an unproductive self-absorption, resulting in a society of loners that are caught in a vicious circle of aimless self-adoration. As the global space is shrinking and more people spend most of their waking hours behind computer screens scanning the web for reflections of themselves, there appears to be a trend towards entropy. By dwelling in social networks like Facebook, or sharing one's daily thoughts on Youtube channels, the most significant feedback individuals get about their data doubles often consists of the number of times one's online posted messages or "posts" are seen, the amount of "likes" they generate, etc. In this sense the online identity of a person is defined, not only by a process of data collection, but also by the data they produce. Such creation and exchange of digital contents, along with the possibility for interaction, reduces the physicality or bodily aspect of relations held outside the realm of cyberspace. The constantly growing cyber-personality is the one which people increasingly monitor and try to improve: the data-double has become an individual's main object of careful study, with affection and success

27 Jean Baudrillard, "Telemorphosis." In *Ctrl[space]: Rhetorics of Surveillance from Bentham to Big Brother*, ed. Thomas Levin, Peter Weibel and Ursula Frohne (Cambridge: MIT Press, 2002), 482.

measured according to the received feedback on one's posts.

The cameras that capture the individual's traces outside of online platforms, in the material world, are therefore imbued with the potential to further construct or destroy the image of the self that people constantly attempt to maintain in the virtual realm of cyberspace. The affects inherent in webcam streams are of relevance when considering the ways in which people observe themselves being observed. Moreover, in order to understand the roles people act out in urban environments, it is crucial to grasp the impact of cameras on the construction of subjectivities, both inside and outside of cyberspace.

1.4 The Affected Body of the Camera

To this point, affects have been discussed mostly in terms of their coexistence with the streams transmitted by the cameras, rather than from the perspective of the actual materiality of the object, i.e. the camera. In this section, I maintain that these affects relating to the camera arise whenever the dispositif materializes in the space. This happens prior to any affective production involving people, and thus could be called the level zero. My motivation behind first describing all five levels or moments of affect production before turning to the camera in a separate section is to emphasize the actual materiality of the body of the camera. Thus, after discussing the ways in which people interact with the camera streams, thereby producing the five levels of affect carried by the produced imagery, it is relevant to highlight the presence of a meta-level of affective production that is inherent to the camera's body. This precedes the relation with the owner (first level), but nevertheless pervades all others (down to the art public). In what follows, I will demonstrate the ways in which an object, i.e. camera, can intrinsically be affected.

In the following passage, Brian Massumi explains that bodies carry affects, which are manifested beyond their corporeality:

Since the virtual is unlivable even as it happens, it can be thought

of as a form of superlinear abstraction that does not obey the law of the excluded middle, that is organized differently but is inseparable from the concrete activity and expressivity of the body. The body is as immediately abstract as it is concrete; its activity and expressivity extend, as on their under side, into an incorporeal, yet perfectly real, dimension of pressing potential.²⁸

In this case, the notion of “virtual” does not specifically relate to cyberspace, but rather to that which is carried by the object and nevertheless escapes empirical perception. Affects are organized in an abstract and non-material way, yet they are as present as the body. This means that the body is both its corporeality as well as its less physical aspects. The “pressing potential” of the body, to which Massumi refers, thus corresponds with the affects it carries and which can be experienced on the level of abstraction, more precisely on the previously mentioned pre-individual level as defined by Deleuze and Guattari.

If one aligns Massumi’s *body* with the *camera’s body*, then one can argue that the presence of these optic devices immediately interacts by affect with whoever acknowledges this presence. This encounter takes place out of space and out of time: when one sees a camera, there is an immanent plane of intensities that comes into existence – a plane of intensities that is metaphysical, and exists as pure sensation. Massumi would classify it within the order of the virtual since “[t]he autonomy of affect is its participation in the virtual” and “[a]ffect is autonomous to the degree to which it escapes confinement in the particular body whose vitality, or potential for interaction, it is.”²⁹ The affects of a webcam extend beyond the body of the camera into the products of its system, i.e. the streams. These affects do not only reside in the streamed images, they are equally embedded in the materiality of the device itself. This is why the sight of a camera, or the acknowledgement of its presence, immediately provokes an affective reaction. When one spots a surveillance camera in the street, this public space is immediately perceived as a networked circuit of audiovisual data exchange.

More specifically, the relevance of this notion of affect being inherent to the bodies of the cameras increases when one attempts to define the camera’s potential political impact. When artists appropriate webcam footage in creating artworks, they are not simply using these cameras as a tool for composing a film or an installation with a political message. They are in

28 Brian Massumi, *Parables for the Virtual – Movement, Affect, Sensation* (Durham and London: Duke University Press, 2002), 31.

29 Ibid., 35.

fact incorporating affects that are embedded within the images captured by the camera, its prime matter, as well as the affects manifested prior to the viewing of these, those that have been in and on the body of the camera from the moment of its inception. As Massumi notes, “[a]ffect, like thought and reflection, could be extended to any or every level, providing that the uniqueness of its functioning on that level is taken into account.”³⁰ To apply Massumi’s views to the present object of study entails that the potential of affect generated and acquired at every level of the encounter with the webcams should be taken into account. This cannot be reduced to the functionality attributed to these cameras, either as instruments for surveillance or as “harmless” entertainment. Rather, webcams can be understood as affected bodies in the sense that their potential exceeds their initial purpose, i.e. surveillance. Artists relate to the affective dimension of these cameras, which extends the potential of webcams from mere mediator into a cinematic medium with political significance. In whichever way the artist uses this medium, it retains the presence of its affects. As an example, even a pile of trash showcasing decommissioned surveillance cameras, for example, retains the same meta-level of affects as a new and active capturing device.

1.5 Privacy and Subjectification

The affects, both those present in the bodies of the cameras as well as those produced through people’s interaction, influence processes of subjectification. The subject that is created by the affective relation between people and webcams is a doubling of the self. With Lyon’s notion of the data double, I point to the digital profile of an individual that is created by mass data collection that is categorized by algorithms, to which webcams contribute by pervading domesticity. The aforementioned affects equally contribute to this mass data collection, since the awareness of a person on the street also influences this duplication of the subject: we are aware of being seen, and therefore act differently when we are being recorded. This double, therefore, does not entirely coincide with the “original,” as it is modeled on our image but nevertheless altered by the affects engendered through the body of the camera and the relation every one of us holds with its streams.

To return to the difference between Ono’s film *Rape* and the

JenniCAM, one might wonder: how does the data double incorporate the changing issues of privacy, which are so often called into the equation, and what are the consequences this process entails for the individual's identity? The process of storing these images produced by cameras implies databanks harboring incalculable amounts of yottabytes (10^{24} bytes) of algorithmic-based "flecks of identity," i.e. bits of personal data randomly accessed by data mining to build online profiles.³¹ According to Wolfgang Ernst, the notion of the individual is inherently linked to that of privacy: if storage in databases, for instance, intrudes upon privacy, then there exists the danger that individuality will be lost.³² In this post-privacy environment, when individuality is translated into a fragmented data version of itself, identity morphs into small bits of information that are constantly re-arranged by ever emerging algorithms. The result of this is an identity that is no longer individual but merely archival: it belongs to and is generated by the individual, yet it diverges from the individual on many levels. The contemporary audiovisual archive is a fragmentary mirror that provides a digital mapping of reality. Instead of singling out the individual, the digital modes of archiving data cause its former identity to disappear behind homogenizing categorizing paradigms. The subject is doubled into an array of codes and instructions that pushes it further into predetermined categories for data classification, rather than exalting the individual's characteristics as a private person.

A focus on privacy, furthermore, emphasizes the importance of identifying continuities and distinctions between, on the one hand, the traditions of data collection that was initially linked to juridical systems, and, on the other hand, the present panorama of self-updating databases, which are constantly generating new personal data intended for digital profiling. In conclusion, and in anticipation of the second chapter in which I will focus on forms of panopticism and capital production, let us now briefly summarize the previous arguments. I have established a distinction between CCTV and webcams to study in particular the levels of affect that are intrinsic to the Affected Personal Cam and potentiate it as cinematic medium. To sum up, these affects derive from several moments, each constituting different levels: production, which includes ownership and the decisions of positioning the camera for image capture and transmission; being filmed, either moving through public or semi-public spaces; viewing by the observer, who may be

31 Matthew Fuller, *Media ecologies: Materialist Energies in Art and Technoculture* (Cambridge: The MIT Press, 2007).

In this book the author provides the notion of "flecks of identity," which defines how our online profiles are constructed.

32 Wolfgang Ernst, *Stirrings in the Archives: Order from Disorder*, trans. Adam Siegel (Maryland-London: Rowman and Littlefield, 2015).

the owner, a simple user or the artist; appropriation of the images by the artist; and, finally, the encounter of the public with the artwork created from such materials. In addition, and pervading all the previously mentioned levels, I have identified a meta-level of affect inherent to the body of the camera. These levels of affect may contribute to transforming the appearance of our surroundings and perhaps change our behavior when filmed by these networked audiovisual devices.

Since the city is the place where most footage is collected, cameras like the DonnieCam play a major role in constructing the subject and simultaneously adjusting urban space. The principles of surveillance and their relation to architecture and urban planning have their roots in the way the original Panopticon was built to supervise the activity of prisoners in penitentiary facilities and then extended to schools and factories. In what follows, I will argue that this system has evolved into the contemporary network of webcams. The next chapter will support this claim by focusing on the relation between the webcams, contemporary forms of panopticism, and the attention economy. I thereby demonstrate that the surveillance dispositif has evolved, alongside a regulatory system that supports information exchange and entertainment production, into a cinematic apparatus: it both documents human activities and helps maintaining a mode of production that is based on visibility.

Chapter 2

Post-Panopticism and the Attention Economy

When we study issues related to surveillance in public spaces from a general rather than personal angle (as we have seen in the previous chapter), it becomes imperative at this stage to analyze the Panopticon as the origin of our contemporary and, as I argue, cinematic state surveillance apparatus. As I have examined in the previous chapter, the Affected Personal Cam stands apart from other surveillance cameras by virtue of its inherent levels of affect that further enhance its potential as cinematic medium. To further analyze the qualities that set this camera apart from more ordinary video cameras that are ostensibly intended for security, it is important for one to study the ways in which the classical Panopticon has evolved into a post-panoptic apparatus. The latter category includes networked digital audiovisual devices that produce archival materials with filmic qualities.

The webcam as a post-panoptic cinematic apparatus functions in continuity with several previous surveillance techniques. This research proposes that the transition from panoptic to post-panoptic marks a shift towards an increasingly cinematic character of surveillance that stages or orchestrates street routines. In the following chapter I will specifically focus on this evolution from the classical cinematographic apparatus of conventional cinema to the contemporary cinematic apparatus of the webcams. Perhaps by accident, the principle of panopticism as introduced by Michel Foucault arises around the same time that Jean-Luc Godard and his peers initiated the Nouvelle Vague through the deconstruction of the ideological machine of traditional cinema and its apparatus.¹ But before specifically analyzing film-based production, in order to understand the relationship between panoptic and cinematic forms, I will begin by describing the construction of the original Panopticon and its transformation via digital technologies, specifically the Internet. In the present chapter I will demonstrate this transition by comparing the Panopticon with webcams and by taking into account the continuities and disparities between the principles of panopticism and those of post-panopticism.

2.1 The Apparatus

When referring to Bentham's Panopticon, I have chosen as my point of departure the Italian philosopher Giorgio Agamben's analysis of *apparatus*

1 It is interesting to note that this is also the moment Bollex cameras and the like become more widely available, and, as a consequence experimental filmmakers in the United States as well as movements like Situationism in Europe affirm the emancipation of cinema from state ideological concerns. Moreover, super 8 film cameras are profusely being used in domestic environments greatly distributing the tools and the outcomes of audiovisual production.

as used by Michel Foucault in *Discipline and Punish* (1995). Agamben begins by summarizing the Foucauldian notion of the apparatus in three points, according to a description given by the French philosopher during a 1977 interview:

- a It is a heterogeneous set that includes virtually anything, linguistic and nonlinguistic, under the same heading: discourses, institutions, buildings, laws, police measures, philosophical propositions, and so on. The apparatus itself is the network that is established between these elements.
- b The apparatus always has a concrete strategic function and is always located in a power relation.
- c As such, it appears at the intersection of power relations and relations of knowledge.²

As Agamben describes, the apparatus is a network of heterogeneous elements: “virtually anything” with a specific, power-oriented functionality that affects social relations and knowledge formation. An example could be the vague notion of the state apparatus consisting of a network of governing bodies: the political and diplomatic bodies, the juridical and jurisdiction systems, the financial and educational institutions, and, finally, the social security and health care dependencies.

When tracing the genealogy of the term apparatus, which he dates back to G. W. F. Hegel (1770-1831) and Jean Hyppolite (1907-1968), Agamben formulates the notion of “positive religion” as opposed to “natural religion.” Positive religion encompasses feelings that are imposed by sheer pressure on obedient individuals rather than feelings emerging from the individuals themselves. According to Agamben’s research, Foucault began by borrowing the term “positivity” which he later changed into “apparatus” to apply to the study of this organizational paradigm determinant to power structures.³ Deriving from his studies in theology, Agamben establishes a connection between the primacy of apparatuses and the “Divine Economy,”

2 Giorgio Agamben, *What is an Apparatus? And Other Essays*, trans. David Kishik and Stefan Pedatella (Stanford, California: Stanford University Press, 2009), 2-3.

3 Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (New York: Vintage, 1995).

a term derivative from the Greek word *οἰκονομία*, or *oikonomia*.⁴ Translated into Latin as *dispositio*, it corresponds to the apparatus that introduces the Christian form of governance – a religious form of authority anchored in the notion of divine providence. According to Agamben, the Foucauldian *dispositifs* are in direct relation to it:

The term “apparatus” designates that which, and through which, one realizes a pure activity of governance devoid of any foundation in being. This is the reason why apparatuses must always imply a process of subjectification, that is to say, they must produce their subject.⁵

As demonstrated in the quotation above, the apparatus is the medium through which *believers* can be led by an authority – divine or ideological. However, these do not pre-exist the apparatus but are in fact created by it: they are its subjects. When operating above a group of individuals, the apparatus has a direct impact on their identities. The apparatus in fact shapes these identities through the process of creating its own subject. In order to be able to efficiently accomplish the task of subjectification, the apparatus must belong to a realm of its own. Agamben considers this the realm of the sacred; that is, the order of divine providence that separates the apparatus from those who are about to become *subjectified*. The latter, as the author claims, belong to the order of the profane.

An overseeing central apparatus – for example, the state – is composed of several smaller apparatuses, which contain other structurally similar subdivisions. The webcams, considered as a part of the surveillance apparatus devoted to overseeing crime prevention, thus belong to the state apparatus. However, the webcam can also simultaneously be considered a complete apparatus on its own: a cinematic apparatus, as I will examine in the next chapter. In first instance, the webcams are part of a full-bodied *dispositif* with an *oikonomia*. But, it can be argued, webcams structurally resemble

4 Agamben *What is an Apparatus?*, 6.

This is the full quote: “What is at issue here, to be precise, is an extremely delicate and vital problem, perhaps the decisive question in the history of Christian theology: the Trinity. When the Fathers of the Church began to argue during the second century about the threefold nature of the divine figure (the Father, the Son and the Holy Spirit), there was, as one can imagine, a powerful resistance from reasonable-minded people in the Church who were horrified to at the prospect of reintroducing polytheism and paganism to the Christian faith. In order to convince those stubborn adversaries (who were later called “monarchians,” that is promoters of the government of a single God), theologians such as Tertullian, Irenaeus, Hippolytus, and many others could not find a better term to serve their need than the Greek *oikonomia*. Their argument went something like this: “God, insofar as his being and substance is concerned, is certainly one; but as to his *oikonomia* – that is to say the way in which he administers his home, his life, and the world he created – he is, rather, triple.”

5 Ibid., 11.

the surveillance apparatus containing other forms of data collection beyond that of video devices, by instilling a form of governance that is undoubtedly inherent, owing to their sheer omnipresence in the public space. As urban dwellers become vessels and carriers of multiple subjectifications originating from constantly replicating surveillance apparatuses, webcams are apparently accepted as yet another aspect of improved living conditions (along with the mobile phone, television, Internet, etc.). This acceptance comes in spite of its serious implications for freedom of choice and personal agency. The dominance of the webcams seems to remain unquestioned even if their function becomes increasingly questionable. Agamben notes that although apparatuses have existed since humanity's inception, contemporaneity is characterized by the constant presence of networked digital video surveillance that permeates the time and space of the individual's life.⁶ In contemporary society, regulating apparatuses, which have always been indissociable from human existence, according to Agamben these apparatuses are increasingly pervasive across all levels of people's lives:

The fact is that according to all indications, apparatuses are not a mere accident in which humans are caught by chance, but rather are rooted in the very process of "humanization" that made "humans" out of the animals we classify under the rubric *Homo sapiens*. (...) At the root of each apparatus lies an all-too-human desire for happiness. The capture and subjectification of this desire in a separate sphere constitutes the specific power of the apparatus.⁷

It can be inferred from the quote above that, for Agamben, apparatuses have always constituted a marking sign of the divide between humans and other animals. It can also be inferred that the evolution of the human person alongside its pursuit of the desire for a "better life" is closely tied to the creation and development of apparatuses or forms of governance. These underlie the structures that allow individuals to organize the world through functioning hierarchical social political paradigms.

As Agamben writes, these tools of the *oikonomia* directly result from human desire. Yet, it may be argued that they also thwart desire by imposing boundaries when creating the subject. The subject, it may be inferred, is as free as the laws restricting its behavior and setting limitations to the pursuit

6 Ibid.

7 Ibid., 16.

of desire. The process of subjectification further entails the creation of its own counter-processes. Agamben sees this as the de-subjectification without which the apparatus would reach less efficacy as governing body – or network of bodies and systems.⁸ A webcam, for instance, may transform those whose image is captured within the frame into what they probably are not: crime suspects or presumed terrorists, if their behavior fits or escapes sought-out patterns. In most cases, however, the person being filmed may be a docile citizen who performs self-regulation and, moreover, promotes the existence of the actual apparatus. In other cases, dissent-aspiring individuals and groups may be aware of the cameras and carry out their action in a covert manner that will not arise suspicion. This awareness of the subjectification processes entailed by the surveillance apparatus has inspired many, such as the artist collective Surveillance Camera Players, who provoke reactions by exploring the limits of the apparatus. They perform before the cameras, purposefully triggering some sort of reaction from whoever may be observing the performances they devise.

According to Agamben, governments tend to focus on the sheer replication of the *oikonomia* of their apparatuses. Observing the multiplication of websites offering links to an ever-growing number of webcams confirms this trend. Agamben proposes to counteract the present trend with a movement of what he calls the *ungovernable* – an entity that takes back from the apparatus what this has separated from the public realm. Within such a project, the webcams could be used in ways other than their envisioned primary function: people could start using the webcams for purposes beyond surveillance. These forms of action could release webcams from the providential governance of this era that has alienated its citizens and their personal agency.

When describing the contemporary surveillance imperative and its potential ungovernables, Agamben notes:

[S]urveillance by means of video cameras transforms the public space of the city into the interior of an immense prison. In the eyes of the authority – and maybe rightly so – nothing looks more like a terrorist than the ordinary man.⁹

If the ordinary man lives in a prison as big as the city and the means of

surveilling these urban spaces are networked so as to wire in the whole world, then the potential criminals framed by video cameras could equal the ordinary citizens of every nation. According to Agamben, the counter movements of subjectification come from within the *oikonomia* of the apparatus. These happen at the hands of the ungovernables, people who understand the premises underlying the panoptic – and its contemporary exponents – who propose and identify potential forms of subverting it.

The Panopticon

2.2

In his analysis of Bentham's Panopticon, Foucault highlights the fact that this model of surveillance detracts from the structures of previous prisons that would hide the inmates from sight by literally locking them away.¹⁰ As he remarks:

[I]t reverses the principle of the dungeon; or rather of its three functions – to enclose, to deprive of light and to hide – it preserves only the first and eliminates the other two. Full lighting and the eye of a supervisor capture better than darkness, which ultimately protected. Visibility is a trap.¹¹

As Foucault states, rather than hiding the prisoners in the darkness where they cannot be seen, the form of the Panopticon, with its darkened watchtower in the center, is a far more effective means of surveilling the inmates. All that is required of the workforce is a guard who supervises all the exposed, lighted cells. This is a cost-efficient way to collect knowledge of everyone being watched. Rather than having several guards walking into each room at regular intervals, the central tower ensures maximum visibility of the prisoners. But this efficiency is even more sophisticated and competent in another aspect. As there may be no one in the tower, the Panopticon may work simply due to its architecture. As the central tower hides from sight the supervising guard, inmates are ignorant as to whether or not they are being observed. The possibility that someone may be looking directly at them is considered to be deterrent enough to restrain them from illicit action.

¹⁰ Foucault *Discipline and Punish*.

Paraphrasing Foucault, Bentham's Panopticon consists of an annular building at the periphery and a tower in the center. The peripheral building is made up of cells missing the fourth wall, which can be observed from the central tower. The cells are backlit while the windows of the tower are darkened. The inmates may be under constant observation by a supervisor, but they can never be certain of this eventuality.

¹¹ *Ibid.*, 200.

Foucault describes “the major effect of the Panopticon: to induce in the inmate a state of conscious and permanent visibility that assures the automatic functioning of power.”¹² The “automatic functioning of power” may also apply to the contemporary state of complete visibility that comes about with the proliferation of webcams. If citizens know that cameras are present in the city and that someone may be watching the public space at all times, criminality is supposedly curbed. In terms of visibility and power, there are obvious similarities between the Panopticon and omnipresent webcams. Foucault comments on Bentham’s project by stating:

Bentham laid out the principle that power should be visible and unverifiable. Visible: the inmate will constantly have before his eyes the tall outline of the central tower from which he is spied upon. Unverifiable: the inmate must never know whether he is being looked at at any moment; but he must be sure that he may always be so.¹³

For the architect of the Panopticon the guard’s watchful eye from the middle tower personifies power, be it political, judicial, or economic. In the mind of the inmate, someone hidden behind blinds is always present. While this prisoner can never be sure of being watched, he is nevertheless constantly aware of this possibility. The Panopticon model is also extensively used in factories and schools where surveillance is equated with supervision.

It must be noted that the webcam is not an architectural device like the watchtower, even if the camera is determinant for urban planning. Thus, where formal aspects are concerned, the disposition of the webcam in a space differs from the original intention of the Panopticon. In primarily urban spaces where video surveillance is ever expanding, there is no central watchtower from which to film the entire town or city. In its place, a multitude of cameras are tactically distributed in order to monitor the routines of those in the streets. Still, even if the more formal aspects of data collection and device distribution differ from case to case, the principles governing the webcam as a tool for surveillance are comparable to those underscoring the Panopticon. As an example, Foucault further states that the principle of panopticism he identifies is based on the systematic functioning of the apparatus, which is mostly dependent on its mechanical aspects. In fact the Panopticon is an architectural system that can function regardless of who

may be operating it. Similar to the case of the webcams, the machinery is built to work on its own and may be activated by anyone, regardless of function or profession. Virtually any person is able to purchase a camera, position it – outside of the window – and start filming the public space. Foucault notes that, when it comes to the one operating the Panopticon:

[I]t does not matter what motive animates him: the curiosity of the indiscreet, the malice of a child, the thirst for knowledge of a philosopher who wishes to visit this museum of human nature, or the perversity of those who take pleasure in spying and punishing.¹⁴

This quote suggests that Foucault has detected an important shift in the rationale behind the use of visual forms of surveillance. First is the insight that the one who operates the machinery, which in this case is the system of blinds concealing the guard in the watchtower, is no longer required to have as his sole motivation the fulfillment of the supervisory function. Secondly, it is understood that surveillance can be triggered by purposes other than the prevention or deterrence of illicit actions. Surveillance is, in essence, looking at or observing something or someone. As the dual prospect of visibility and voyeurism has become immensely appealing to human beings at large, a phenomenon discussed in the previous chapter, the two aspects seem to contribute to and intensify the rapid proliferation of visual means of surveillance.

It can be inferred in this passage from Foucault that in the case of the Panopticon, authorities devised an efficient way to recruit the general public as co-surveillors with the assumption that people were willing to engage in these activities based on the knowledge that the identity of the machine operators would remain concealed by the *dispositif*. This logic may be applied to either the operator of a classical Panopticon watchtower light switch or to a contemporary form of panopticism, as practiced by the webcam owners. Contemporary power structures definitely make use of this type of labor by supporting the pervasiveness of surveillance in the form of personally owned and seemingly innocent video devices placed throughout the city – including Affected Personal Cams. A course of action that further contributes to what Foucault suggested was the non-corporeal entification of the authorities, consisting of vaporous forms of jurisdiction that are omnipotent but invisible

and intangible.¹⁵ Observation through the cameras allows for a multitude of interpretations and digests of the streamed data with the potential to form an extensive body of knowledge. Even the remotest possibility of information being collected by these *faceless* panoptic devices contributes to a preemptive action that seems to have a lasting effect on habit formation and influence on the organization of public space.

Foucault additionally draws attention to the fact that “the Panopticon was also a laboratory; it could be used as a machine to carry out experiences, to alter behaviors, to train or correct individuals.”¹⁶ The Panopticon, as mentioned before, was used as a model not only in prisons but also in factories and schools. Its long standing visual surveillance tradition has taught policy makers that the power of observation allows for the development of strategies to directly affect subjectivities. The original watchtower consisted of a control center with the purpose of observing behavior and collecting data for further analysis, as well as the subsequent transformation of this data into the matter of law. This means that the collected data were used for disciplinary purposes: not only to incriminate the dissenting individual, but also to create new rules that would further mold social interaction and behavioral patterns, including self-regulation and further internalization of surveillance. The lessons learned from implementing this model have been transposed to present forms of panopticism, including video surveillance, which reinforce the powerful structure of a control system based upon architectural planning, potential observation by anyone, and the present or future use of tracking systems. These same strategies overflow into the realm of capital production, as in the case of marketing campaigns and strategic product placement. Harun Farocki’s film *The Creators of Shopping Worlds* (**Fig. 6**) is revelatory of such practices that collect surveillance footage for analyzing how to best reorganize the space to maximize production and consumption. In other words, the film exposes both through theory and in practice how video surveillance leaves creasing traces in the conception of trade-oriented architecture.

Farocki’s artwork exposes the way in which the architecture of shopping malls is designed to match consumers’ social and psychological attributes. It shows how marketing experts and architects scrutinize surveillance footage to detect movement patterns drawn by shoppers in the mall. This analysis aids in the construction and organization of the space to efficiently increase retail sales. In this specific case, video material regularly

Fig. 6 *The Creators of Shopping Worlds* (Harun Farocki 2001)

collected in the space of the mall is routinely observed by marketers to tweak the appealing product display to match the changing habits of consumers, but also in order to influence and potentially create new habits. Similar strategies may be used outside of the mall context, so as to extend these modifications of social organization in other public spaces, including city streets.

As an example of how surveillance technologies influence the public realm, filmmaker Michael Palm made a documentary in 2011 entitled *Low Definition Control – Malfunctions #0* (**Fig. 7**) in which he focuses on surveillance systems, both in the streets – including pattern detection – and inside the body. Palm reveals here how visual tracking systems work. The specific image displays the red lines registering and translating the traces of a person's walking pattern. From this example, erratic, non-conforming behavior can be detected since people on the street typically produce straight

Fig. 7 *Low Definition Control – Malfunctions #0* (Michael Palm 2011)

lines when walking by shop windows as opposed to an individual walking in circles. In such a case, an algorithm analyzing the individual's walking pattern would trigger a response demanding some form of regulatory action. Consequently, the person being observed could be singled out and targeted for further scrutiny. Palm's film further displays how similar tracking strategies can be utilized in the body's interior, with medical tests used to indicate potential shortcomings at a fetal stage. These include genetic mapping for the identification of disease propensity. Such contamination and replication of devices and strategies ensure the pervasiveness of surveillance and its invasion into the most intimate areas of people's lives. As previously noted, the data collected from video surveillance of the public realm may be invaluable to authorities that seek to enforce such practices as preemptive action. It is also apparent that the data may serve interests invested in capital formation ranging from commodity exchange to virtual stock-based trade. Beyond the mall, cameras in the streets may be a key means to support such modes of production since they help to collect data about how people dress, what they shop for, whether they commute, how much they work outside of their homes, etc. Gathering such information is crucial for determining lifestyles and spotting/creating trends as more visual capital is generated.

Foucault highlights the fact that the Panopticon allows experimentation on the subject and analysis of the resultant data. He also points out that the Panopticon may generate its own forms of (self) supervision.¹⁷ If applicable to webcams, the panoptic as a basis for social experimentation may imply that video data can be categorized according to any analysis the determinants deem useful: behavior, product preference, age, etc. It is a fact that the algorithm-based forms of contemporary panopticism ensure that the required data get produced and categorized but also simultaneously reintroduced into a self-perpetuating continually updating system. This simultaneously happens online and offline. To demonstrate one result, similarly to malls streets are rearranged according to the people who visit them; in addition, people are either encouraged or discouraged to visit these same streets, according to the data collected and how they are interpreted.

That panopticism extends beyond safety issues is clear, for example, when one observes footage from webcams and notices that designated shopping streets have no vagrants, at least not within the visual range of these commercial areas. Vagrants are generally not considered dangerous, yet, as I have observed, they are rarely seen in the footage. In Palm's documentary, people who are not shopping are considered suspicious and, thus, likely to be physically removed. One can speculate that this could suit parties with commercial interests, as it attracts desirable people with the financial means to shop in the businesses lining the street. Moreover, many of these "undesirables" may in fact proceed in a self-regulatory fashion to voluntarily remove themselves from the frame due to their increased awareness of the presence of cameras.¹⁸ Foucault describes the efficiency of this *modus operandi* when he states, concerning the Panopticon, that:

In each of its applications, it makes it possible to perfect the exercise of power. It does this in several ways: because it can reduce the number of those who exercise it, while increasing the number of those on whom it is exercised. Because it is possible to intervene at any moment and because of the constant pressure acts even before the offences, mistakes or crimes have been committed.¹⁹

Even if one admits to discrepancies between the classical Panopticon

17 Ibid.

18 There are innumerable stickers indicating the presence of surveillance cameras in certain areas that increase people's awareness of their existence.

19 Foucault, *Discipline and Punish*, 206.

and contemporary webcams, the latter category operates within a similar paradigm, i.e. a single person is panoptically-enabled to watch over dozens or even hundreds of individuals. With webcam surveillance, this person watches a multitude of cameras, linked to algorithmically structured systems that detect abnormal patterns and relay warnings. Using the previous example, a person circling in front of a shop without entering can trigger these identifying systems. Palm's film (**Fig. 7**) indicates that action may be taken by whoever is observing the cameras in order to approach the individual and inquire about personal intentions beyond consumerism. In most situations, however, the exercise of power will not be felt as an impediment, since it has become almost invisible, which arguably renders it all the more efficient. This efficiency is not limited to surveillance as preemptive action against criminality, but includes the foresight of terrorist attacks, which adds value to constantly recording cameras and promotes their increasing pervasiveness.

According to Foucault, the panoptic paradigm is directed at self-replication:

The Panopticon ... has a role of amplification; although it arranges power, although it is intended to make it more economic and more effective, it does so not for power itself, nor for the immediate salvation of a threatened society: its aim is to strengthen the social forces – to increase production, to develop the economy, spread education, raise the level of public morality; to increase and multiply.²⁰

In the case of the webcams, this quote is illuminating. The existence of these particular cameras derives from a power system intended for social control and productivity enhancement. As Foucault notes the purpose and the functioning of panopticism are aimed at self-multiplication. It can thus be inferred that webcams are the contemporary result of the amplification of the Panopticon. Moreover, by allowing anyone to buy, install and stream with such a camera, authorities are promoting this form of decentralized surveillance, in which the world has become its own observer by taking on a self-disciplining, active role. According to Foucault, Bentham's premonitory thoughts on a possible panoptic network envisioned a self-replicating surveillance system, which is in essence not unlike the functioning of webcams. As Foucault explains, Bentham envisioned "a network of mechanisms that would be everywhere

and always alert, running through society without interruption in space or in time.”²¹ In the age of the Internet, incessantly streaming webcams are the embodiment of this idea. Foucault further notes that “[t]he panoptic arrangement provides the formula for this generalization. It programs, at the level of an elementary and easily transferable mechanism, the basic functioning of a society penetrated through and through with disciplinary mechanisms.”²²

Up to the present moment, I have identified the continuities between the Panopticon and webcams, and I have highlighted the nuances involved between both dispositifs. The pervasiveness of webcams confirms the evolutionary path originated with the Panopticon as model for behavior reinforcement devices that extends into the contemporary world of networked surveillance. In fact, even when referring to a shift from *punishment* to *discipline*, the factor of surveillance or machinic control as determining to society at large, was already factored in in Foucault’s panopticism.²³ In his own words, “[o]ur society is one not of spectacle, but of surveillance,”²⁴ in which the individual undergoes a form of subjectification that is externally attributed:

[I]t is not that the beautiful totality of the individual is amputated, repressed, altered by our social order, it is rather that the individual is carefully fabricated in it, according to a whole technique of forces and bodies.²⁵

In Foucault’s view, the individual is constructed by the disciplinary means of surveillance, and identities are created conform to a plethora of reasons that relate to capital formation in order to increase economic efficiency and productivity. This same line of thought extends in the analysis of the current reality of webcams, which contains a competent system of seemingly innocent image collectors and distributors that allow anyone to access imagery from virtually anywhere at any given moment. This system forms both the viewer and the person on the street by creating law-abiding citizens that actively produce and consume visual capital, contributing to the further replication of this networked system of video surveillance.

21 Ibid., 207.

22 Ibid., 209.

23 Gilles Deleuze, “Postscript on the Societies of Control,” *October* 59, Winter (1992): 3-7, <http://www.jstor.org/stable/778828>.

24 Foucault, *Discipline and Punish*, 217.

25 Ibid., 217.

2.3 Post-Panopticism

As I will demonstrate in this section, the term “post-panopticism” does not entail the end of the Panopticon as such, but encompasses everything that originated with this original architectural structure and that followed in its wake. The “superpanopticon,” as used by Mark Poster, and other terms, such as “hyper-surveillance” by William Bogard, are examples of notions that I consider necessary when conceptualizing post-panopticism.²⁶ As stated before, I do not distinguish a clean break between the Panopticon and contemporary video surveillance, but instead approach them as stages on an evolutionary path that can be traced back to Foucault’s analysis of panopticism, regardless of substantial changes that occurred in the social realm in the process.

In “Postscript on the Societies of Control,” Gilles Deleuze praised Foucault’s efforts for analyzing the so-called disciplinary societies. However, as he remarks, these societies are based on a set of enclosures or institutions, such as family or schools that are presently in constant change. Moreover, they have ceased to be identified with a place, since they are everywhere. As the philosopher writes:

The administrations in charge never cease announcing supposedly necessary reforms: to reform schools, to reform industries, hospitals, the armed forces, prisons. But everyone knows that these institutions are finished, whatever the length of their expiration periods.²⁷

The present-day institutions are a continuously transforming and permanently shifting body. Whichever regulations are implemented will be revoked and replaced. This is confusing for individuals, who need to identify with a web of references in order to develop a life, a profession, raise a family in good health, etc. The only certitude is one of constant change. A major difficulty in identifying the purpose of surveilling the streets around the clock is that there is no fixed entity or all-seeing body one can identify as the owner of the cameras. Whether for policing or capital production purposes, the Big Brother from 1984 is today, in 2015, a faceless and formless cloud.²⁸ Further outlining the development of institutional structures into those determined by

26 Mark Poster, *The Second Media Age* (Cambridge: Polity Press, 1997).
William Bogard, *The Simulation of Surveillance: Hypercontrol in Telematic Societies* (New York: Cambridge University Press 2010).

27 Deleuze, “Postscript on the Societies of Control,” 4.

28 George Orwell, *Nineteen Eighty-Four*. London: Penguin Books, 2013.
In this book, originally written in 1949, Orwell’s dystopian view of the future world describes a society that is constantly surveilled by a fictional character called Big Brother. This omnipresent figure stands for all forms of law-enforcement authority.

continuous control, Deleuze points out that:

Enclosures are molds, distinct castings, but controls are a modulation, like a self-deforming cast that will continuously change from one moment to the other, or like a sieve whose mesh will transmute from point to point.²⁹

Deleuze refers to enclosures as the modes in which disciplines were organized. This type of system promotes a competent organization of the discipline and of knowledge. In the control society, the limits between these institutional bodies are no longer visible. Controls are constantly shifting shape in order to accommodate external influences and emerging trends. Institutions are becoming increasingly difficult to identify, as they are constantly replaced by moldable anonymous structures. As Deleuze points out, “just as the corporation replaces the factory, perpetual training tends to replace the school, and continuous control to replace the examination. Which is the surest way of delivering the school over to the corporation.”³⁰ According to this citation, the institutions of labor, health and education have been replaced by formless paradigms that are no longer based on materiality, but on code. As a consequence, workers, patients and students cease to be identifiable as individuals and are instead translated into batches of data, bits of information that are accessed according to the logic determined by algorithms that delineate productivity and efficiency ratios.³¹ This process has an effect on the actual outcomes of human action and interaction. As Deleuze notes:

The old monetary mole is the animal of the spaces of enclosure, but the serpent is that of the societies of control. We have passed from one animal to the other, from the mole to the serpent, in the system under which we live, but also in our manner of living and in our relations with others. The disciplinary man was a discontinuous producer of energy, but the man of control is undulatory, in orbit, in a continuous network. Everywhere surfing has already replaced the older sports.³²

In an analogy with animal life, Deleuze compares the discipline mole with the control serpent. From this point of view, the virtual world inhabited by the “man of control” is defined by a network through which a flow of

29 Deleuze, “Postscript on the Societies of Control,” 4.

30 Ibid., 5.

31 Ibid.

32 Ibid., 5.

information runs incessantly. Deleuze's description fits the contemporary context in 1992; however, his impressions remain relevant today. Indeed, Deleuze foresaw the constant institutional shifts that are based on strings of numbers rather than analog materiality and that call for constant adaptation of individual and social structures, including work relations, education and health care. There is an incessant need for adaptation to the ever-changing functions of institutional structures on which the survival and development of the individual depend. The resulting lack of orientation and referral, which is externally induced, may be identified as forms of control: in ambivalent times, the individual will not likely engage in dissent but instead attempt to achieve stability by obeying control. Moreover, the politics that oversee and rule over these institutions have also become fluid. The regulatory system and law enforcement are in constant re-modulation, and makes instances of power extremely hard to identify.

Following Deleuze's theories, Poster points out in *The Second Media Age* (1997) that digital databases extricate panopticism from penitentiary institutions by placing it at the core of society as a "superpanopticon," which directly affects subjectification.³³ This expanded form of the Panopticon is based on gathered information about the individual, stored on a digital platform. Post-panopticism, as is experienced in the contemporary world, appears to abide with both the disciplinary and the control models of production. According to David Lyon, the classically oriented theories on surveillance, derived from the writings of philosophers like Karl Marx (1818-1883) and Max Weber (1864-1920), also include Foucault's analysis of Bentham's Panopticon. In this manner, Lyon identifies continuities between what they consider stages in the evolution of surveillance and the contemporary practices. In his own words:

The classically oriented theories have in common a search for the social – and especially the institutional – roots of surveillance processes as they have developed, especially in the twentieth century. Thus military competition between nations states, the rationalization expressed in bureaucracy and the class imperatives of capitalism are viewed variously as the origins and the providers of the essential dynamics for modern surveillance. Each emphasizes aspects of surveillance that

can readily be understood as magnifying the power of the institution employing the relevant practices to the relative disadvantage of individuals who are thus located, recorded, observed, monitored, classified and processed. Each also has excellent exemplars in discrete areas, such as in factory or office organization, urban planning or policing, and so on.³⁴

In this citation, David Lyon points to the main social causes sought out by theorists to explain the emergence of surveillance. As he states, classically oriented theories mainly relate these causes to the magnification of institutional powers that support them: nation states, capitalist bureaucracy and class distinction. But, as Lyon notes, the latter are organized according to outdated notions of structural systems, or what Deleuze referred to as “the enclosures.” These enclosures roughly correspond to those places where Foucault invariably identifies the presence of the Panopticon: the prison, the factory, the school, etc. As previously argued, these enclosures belong to the disciplinary society, for Foucault, and constantly shift forms with the emergence of the control society, in Deleuze.

As Steven Shaviro argues when he analyzes networked forms of surveillance, the post-panoptic abandons the central point of view and cannot logically be limited to any form of enclosure:

Each video camera is a monad. Although every monad ultimately “represents the whole universe,” Leibniz says, it does this only in a confused manner. It “represents more distinctly” just a small portion of the universe: its own “body,” or immediate neighborhood. The network, therefore, has no Panopticon, no single privileged point of reference. The apparatus of surveillance is fragmented, multiplied, and widely distributed.³⁵

Shaviro restricts the Panopticon to the original architectural device and therefore concludes that the network is not panoptic, because there is no watchtower. However, as argued before, the concept of post-panopticism in the present study stands for the principles that underlie the existence of the device, but which extend beyond its materiality or position in space, i.e. beyond the “enclosure.” With this in mind, and returning to Shaviro’s quote,

34 Lyon, *Surveillance Society*, 118.

35 Steven Shaviro, *Connected: Or What It Means to Live in the Network Society* (Minnesota: University of Minnesota Press, 2003), 36.

the camera as monad becomes a useful notion for this study, particularly when focusing on its cinematic abilities that derive from the degrees of affects they may carry. Each camera can stand for the whole of video surveillance, as it contains in itself the panoptic principle. However, the image stream the camera sends out is unique and bound to possess diverging degrees of affect.

As Shaviro notes, the policy's change of focus during the transition from discipline to control moves beyond the simple act of recording events, in order to prioritize the prevention of these same events:

The old disciplinary surveillance system accumulated facts and figures. Its purpose was to see, and remember, everything that happened. But video surveillance in the age of the network goes further. It watches over even the emptiest expanses of space, and it registers vast stretches of time in which nothing whatsoever happens. The purpose of video surveillance is not to record crimes and other dangerous events as so much as to prevent these events from happening in the first place.³⁶

Shaviro highlights that there used to be a notation of information concerning occurrences that take place and that this methodology has been substituted by continuous recording of the emptiness of the present in order to prevent these occurrences. From my side, I insist on drawing attention to the fact that the notation or the actual recording of events is, however, still taking place. The collection of data is thus not only characteristic of the Panopticon but of all other forms of surveillance included in post-panopticism, specifically in the case of webcams. The example of the DonnieCam provides evidence that streams *are* being stored. The difference Shaviro points out resides in the fact that the cameras appear to record mostly emptiness until they actually capture anything worthy of notation. As remarked by Lyon, in the so-called classical theories of surveillance one encounters major limitations when it comes to considering new technological developments. By focusing on the institutional, these theories fail to analyze the effect of convergence brought about by technologies of surveillance.³⁷ These effects complicate our understanding of the way in which the preemptively collected data will be managed.

Bogard approaches this subject from a different angle in *The Simulation of Surveillance*. His book analyzes the reality of contemporary surveillance technology as producing simulating devices, some of them actual

decoys.³⁸ Bogard argues that surveillance cameras spread around the city may not be switched on, which implies that possibly most of them have never been connected to a centralized monitoring system. It is their sheer presence that fulfills the role of preemptiveness. The Panopticon's strongest aspect, the incertitude of visibility that regulates behavior, has been exacerbated into full-fledged simulation.³⁹ In fact, self-regulation is now based on a *certainty* of constant observation, which translates into the simulation thereof. This simulation relies on the promise of contemporary technology through algorithmic controlled networked telematics as if it had already taken place, as if the future follows a reliable programmability that ensures its *a priori* preemptiveness. This simulation entails a reversal in the order of causality. Following a traditional chronology, for example, a potential deviation could lead to an actual crime. However, in the simulation, this crime has already happened. In his own words:

When the simulation of surveillance forms the basis of social control strategy, everything suddenly becomes reversible, including the sense and location of control itself – who the authorities are, who breaks the law, who gets caught, all this becomes a tangle, as we shall see. There's no sense to getting "caught" here (unless we mean caught before the act), and no law and no police either, in the sense we normally have come to associate with traditional surveillance practices. Instead, the entire field of observation and all its elements are projected into a scene where everything is capable of circling back in on itself, where the offender is "netted" or captured in advance, the violation is already committed, the sentence already handed down, the time already served.⁴⁰

Bogard points to the fact that these decoys, which correspond to empty watchtowers, have become the basis for strategic social control. The notion of crime prevention then becomes a vicious cycle, since the multiplicity of scenarios implies that basically anyone is a suspect, and that the possibility of committing a crime is inherent to one's existence and thus taken for granted. As he notes, simply positioning a camera in anticipation of an event implies that all the possible scenarios have already been played over and over, since the contingent, the moments of emptiness, is full of criminal potential. This

38 Bogard, *The Simulation of Surveillance*.

39 Ibid., 13 – 16.

The author explains that he combines Jean Baudrillard's concept of "simulation" with Gilles Deleuze's notion of the "virtual" to anchor his conceptualization of simulated surveillance.

40 Ibid., 29.

is a particularly cinematic instance, as it points to the possibility of events occurring in front of the camera as they happen in a classical film. When it comes to webcams, the fact that they are constantly filming implies that all possible scenarios are equally real; indeed, why would they be placed? This equality is precisely the reason for their existence: to ensure that these possible events are simulated to the point that they do not need to actually occur.

Bogard argues that surveillance has been walking hand in hand with simulation ever since there has been warfare and espionage. This, he notes, determines contemporary society, since the simulation of surveillance allows instances of power to become almost unlimited in potential control as they remain invisible. Bogard proposes that the reason for authorities to become increasingly invisible is linked with the fact that the largest part of people's daily lives is spent behind screens, and that most of their functions take place in a virtual realm where they are subjected to constant surveillance. From working over the Internet, making appointments via SMS, interacting with a mobile phone application, to playing the New York Times crosswords over breakfast, people's waking lives are inseparable from their laptops, smartphones and tablets. All these data generated by individuals through digital platforms contribute to an almost unnoticeable collection of information. Each time anyone goes online, traces are created that will be added to the individual's online profile, since each action is monitored and simultaneously predicted according to the data they generate, which are then automatically reintroduced into the system. Control can thus be exerted seamlessly, in an invisible and almost unnoticeable manner. Bogard appears to agree with Deleuze when he affirms that:

While normalization, in the sense developed by Foucault, refers to the multiplicity of individualizing and totalizing practices in surveillance or disciplinary societies, supernormalization is the reduction of all differences and similarities to modulations of basic codes.⁴¹

The "supernormalization" to which Bogard refers can be applied to, for example, what I analyze as the roles expected of and fulfilled by people in the streets, as they are being filmed. Bogard's "basic codes" mentioned compare to the expected behaviors of people while shopping, commuting, etc. The "modulations" actually occur when minor alterations are registered

by simulated forms of post-panopticism, i.e. when algorithms adapt to new occurrences or changes in predicting behaviors. This influences the scenarios designed to incorporate all sorts of dissent, thereby preventing them from actualizing. Bogard directs our attention to the fact that the most powerful aspect of the simulation of surveillance is *not* the creation of an illusion. If truly effective, simulation makes it virtually impossible to discern the fuzzy limits between reality and illusion, two terms, which then become interchangeable.⁴² This state of undiscerned reality and illusion, in which illusion becomes the reality, is a purely cinematic instance provided that there is a consistent narrative that holds the ends together. These parallel narratives that are constantly simulated can be assembled or disassembled by algorithmic logics of control that analyze the audiovisual data; they consist of a sort of interactive film that is adjusted for every possible instance that lies within its scope. The influence one may have on these parallel narratives is of considerable value, since every owned camera is a potential creator of the multiple scenarios it possibly records, some of which affect the renewal of public spaces.

Attention Economy

2.4

When it comes to the cinematic potential of the webcams, which is mainly based on their affects, it is necessary to analyze the way in which a form of simulated surveillance apparatus can be cinematic in terms of its contribution to transforming the filmed world into an object, i.e. reality. This reality is constructed by everything involved in its production process, including the owners of the webcams, the ones observing their imagery, as well as those being filmed by them. In order to analyze the roles of the observer and the observed in this mechanism, I will now elaborate on the contemporary capitalist economic system that intends to keep its citizens at work at all times, even during their leisure time. I refer here to the fact that contemporary forms of visual capital are produced and consumed simultaneously, and that consumption has become a form of production. In this manner, it becomes necessary to involve as many people as possible to ensure the sustainability and maximum profit of such a system, as well as the production of a *simulated reality* that engulfs all, primarily urban citizens.

This social and economic paradigm that comprises the simulation of video surveillance as a form of capital could be included within Jonathan Beller's account of the attention economy at the center of his book *The Cinematic Mode of Production* (2006).⁴³

2.4.1 Beyond Cinema and into the Realm of Surveillance

In his book, Beller has examined the contemporary capitalist mode of production from the perspective of cinematic processes. His study of the cinematic mode of production asserts that cinema has transitioned beyond a seemingly innocent form of entertainment to actually defining the contemporary capitalist system. He points out that “the returns given to cinema cannot be only money paid, given the interest in form and content taken in cinema by audiences, corporations and the state.”⁴⁴ Cinema has then ceased to be merchandise for consumption, but begins to dictate the way in which capital is produced based on functional Fordist methods of efficiency-enforcement.⁴⁵ I suggest we consider webcam filmmaking as a cinematic mode of production in the way Beller describes.

According to Beller, cinema exposes its technical editing processes in order to provide the spectator with a source for abstraction. In the case of montage, the spectator has become accustomed to viewing the filmstrip as an assembly line that puts together material bits of celluloid, which circulate in front of his or her eyes. These bits of celluloid are made of images that substitute for the products they make visible. Film arranges the material world in visual terms and offers it to the viewer in a digested form. This happens in an industrial process of production that reflects the viewer and society at large. In this manner, going to the movies is a way of consuming the goods, e.g. a lifestyle or ideologies, which are represented on screen through the assembly-line logics of the montage. Beller argues that this process of film production has been built in such a way that it can extract attention from the spectator, which can in turn be used as a production force. In his own words: “[t]he visible world and the Imaginary (the unconscious) became technologically linked and constantly retooled to create an industrial technologization of

43 Jonathan Beller, “Paying Attention,” *Cabinet*, no. 24 (2006/07), <http://www.cabinetmagazine.org/issues/24/beller.php>.

44 Jonathan Beller, *The Cinematic Mode of Production: Attention Economy and the Society of the Spectacle* (Hanover: Dartmouth College University Press, 2006), 54.

45 Ibid.

the Imaginary [...]”⁴⁶ Thus, the material world on film, combined with imagination as a form of attention, have created a hybrid production process of capital. Beller explains it as follows:

Material in organized motion has a visual effect; cinematic vision, however immaterial it may be in appearance, is a material practice with material effects. It depends for its very existence on the historical development of a complex material infrastructure. The abstract machine of capital drives itself through the visual field to become the abstract machine of cinema; cinema is the abstraction and intensification of the general socioeconomic process.⁴⁷

From the above quote, I deduce that “cinematic vision” can be interpreted both as the vision that watches a film, as well as the creation of visions of the world. In the first case, it refers to the eyes of the spectator and the way these engage with the unconscious to form a mental image of what is actually seen. In the second case, it refers to the creators of images and the ways in which their craft can shape subjectivities and affect the material world by entering the unconscious of the viewers. These two processes go hand in hand, and thereby further improve the productivity of a capitalist system based on the cinematization of the world.

As I maintained at the beginning of this chapter, the success of an apparatus, according to Agamben, depends on the concealment of its inner workings, as is the case with cinema. Disguised as a form of entertainment, even when one is aware of its commercial enterprise, cinema actually gives form to previously unknown forms of labor, which have only recently recognized. Cinema gave rise to the attention economy, in which one’s eyes provide access to the production of capital, which insidiously takes place in someone’s mind. By devoting their time to the pleasure of watching a film, people enable its production mode, and contribute their attention span to it. As Beller further remarks “[...] the circulation of capital in and as consciousness *is* cinema.”⁴⁸ Taking this view as his point of departure, the author affirms that cinema now circulates through our nervous pathways, in the same way that capital used to travel through space. Capital as cinema has by now taken over the sensorium, both as marketplace and as a site of production. As such, the labor necessary for the capitalist model to thrive

46 Jonathan Beller, “Paying Attention,” 1.

47 Jonathan Beller, *The Cinematic Mode of Production*, 55.

48 Ibid., 56.

is extracted directly from people's brains, even when these are supposedly in a state of relaxation. Beller further advances the hypothesis that "the image-commodity bypasses the direct mediation of money as wage in the extraction of necessary labor and pays the viewer in a combination of pleasure and *techné*."⁴⁹ This mediation model consists of a concerted approach that includes all visual communication platforms, from cinema to the Internet, from televisions to smartphones, to ensure a maximum amount of people is constantly wired in and contributing to the attention economy.⁵⁰ Labor thus extends to all spaces and instances in everyday life, as people can be seen at work on the sidewalk when they receive phone calls from work, or in the cinema wearing 3D glasses.

Whether commuting to work or window-shopping, one is constantly experiencing visual stimuli. Our contemporary society hosts a visibility that is constituted not only by the actual screens in everyone's smartphones, tablets, etc. that add to the screens in the bus, on the metro, the tram and on many buildings, but also by the awareness of one's visual impact.⁵¹ Perception of audiovisual materials has become the most sought after human potential and is actually given away for free in people's free time. Moreover, it is common practice to work for wages that are spent on acquiring the necessary equipment that allows for dedicating everyone's attention to the imagery that is generated for them to capture and observe. By acting this way, people are actually contributing to the further production of this imagery.

Beller notes that "[th]e Cinematicization of the visual, the fusion of the visual with a set of socio-technical institutions and apparatuses, gives rise to the advanced forms of networked expropriation characteristic of the present period."⁵² These forms of networked expropriation that Beller hints at can be interpreted as the previously mentioned attention devoted to filmic products (including social media), but can also be applied to the creation of a cinematized space in cities, pervaded by video-surveillance devices. I argue that webcams are central to this cinematic apparatus that Beller calls "capital." In fact, by their sheer presence in every dependency of life, webcams provide an excellent example of networked expropriation. Their presence is entirely justified by safety and preemptive action, i.e. Agamben's *oikonomia*, which veils their true function as organizing and regulating social practices and conducts. Furthermore, webcams can be considered as an emerging cinematic apparatus, since they contribute not only to monopolizing the time spent by

49 Ibid., 57.

50 Beller, "Paying Attention."

51 Beller, *The Cinematic Mode of Production*.

52 Ibid., 2.

many behind the computer monitor while observing their streams, but also to the regulation of the city space in a manner similar to film plateaus where controlled and potentially dramatic action takes place. This networked system represents an ideal scenario for authorities that seek to enforce the regulation of social relations and practices in the public and the private sphere. Under the illusion of safety and direct access to unlimited amounts of information, one is caught up in a bubble of constructed data through simulated surveillance that works as a shield against “real-life” interpersonal relations. From this perspective, it appears that people are regularly isolated under the influence of pixelated pulsating material, and cut off from the material world. This happens, however, providing that no one attempts to deconstruct the apparatus and engage with others in the process, thereby affecting relations in the material world.

The Relation between the Attention Economy and Post-Panopticism

2.4.2

The attention economy is so firmly rooted in society that the public appears to not question the reason behind the reduction of most professions to sitting long days behind the computer. After work, when people go back home (assuming they do not work from home), they spend the rest of the evening facing some form of screen. For example, when they decide to take a break and relax by doing some online shopping or engaging in social media. The richness that used to be associated with the filmic experience at the movie theatre has been replaced by the consuming flickering of a screen, displaying product advertisements in one form or another. With regards to the continuous work mode, Bogard states that, at present, the focus is on enforcing strategies to gradually immobilize the viewer. When they do need to move, people should take their work with them, on their smartphones or Google glasses, keeping the focus on their jobs wherever they are, always wired in. As the author writes:

Today, it is more a matter of finding ways to jack the worker in, make him or her just one more switch or relay in a growing cybernetic assemblage. This signals a dramatic intensification of the control of labor at the end of the twentieth century, a grand extension of the practice of synchronizing human labor to the rhythms of machines. As labor slides into its simulation in the post-industrial era, so do all the disciplinary methods that were once used to exploit it – the close supervision and inspection of work, meticulous, detailed organization of worktime and workspace, ranking and serializing productive tasks, the alignment and integration of laboring bodies into workforces.⁵³

The forms of supervising the workforce, Bogard notes, are increasingly less disciplinary and more of a simulated nature. As those who own a smartphone know, its signal as well as its routine use can be tracked. The cameras and microphones in many mobile devices can be remotely switched on. With this, however, I do not wish to imply that there is a great conspiracy at work to record everything everyone ever says, in the manner of NSA data collection. But to point out that the simulation of surveillance, though it may in principle never actualize, might nonetheless trigger restrictive action should the workforce not comply with its expected productivity. The goal is to ensure that the networked workforce never ceases productivity. As Bogard writes: “worktimes, in this dreamland of hyper production, become ‘any-time-whatevers’ (days/nights, weekends, holidays, vacations), workspaces ‘any-place-whatevers’ (factories, homes, offices, cars, planes, sidewalks – the “cellular revolution”).”⁵⁴

However, in a perfected system of maximum visibility, where everything and everyone seems apathetic to constant control, one hardly ever thinks of those who fall out of the frame. Many people fall off the grid of visibility, and become invisible through such surveillance processes. This is the reverse of the coin, of which Beller highlights that:

Visibility isn’t necessarily a trap, but the organization of the visible is fundamental to the political structure of globalization and contemporary society. There is today an intimate and continuous integration of computation and visibility. At the most basic level, the disappearance of mass suffering (of the Global South, of everyone) in

what passes for civil society would legitimate the current world. We, who believe we count, cannot feel the pain of the world. This terrible incapacity isn't the result of any individual effort; this insensitivity and invisibility is the result of a systemic disappearance.⁵⁵

Most theorists working on issues pertaining to surveillance do not touch upon the notion that the over-collection of data from a group of individuals implies the disappearance of others. Beller shows that when too much attention centers on a specific object, there is a whole set of other objects condemned into disappearance. This, too, is a strategy that produces capital, as it neglects the suffering of entire countries, and instead focuses on the world as it is filmed by cameras in a closed circuit. Moreover, this evidence of the off-screen demands consideration when one studies the cinematic reality of the streets, brought to us by video surveillance, and the reasons behind this framing practice should be emphasized. For example, some people are left out of the frame involuntarily. In this manner, Beller talks about the South as a generalizing notion of the geography that refers to impoverished and underdeveloped areas. I consider the "South" to be virtually everywhere. In every city, and even in most neighborhoods, groups of individuals exist that are purposefully left out and that might be in need of support, but having them in focus is apparently not profitable. In this manner, their shortcomings are rendered invisible to other people that confine their gaze to what has already been framed, even as they walk outside. These "undesirables" might dwell in the back streets, never to be captured in the streams that make it to the Internet.

The City as Film Set

2.5

To sum up, one should not analyze cinema and its contemporary correspondence with the Internet and the multiplicity of screens and cameras as separated from reality, nor consider them only as instances of escapist entertainment. Being influential to the ways in which people relate to each other and behave in the material world, films have since long been regarded as a product that affects reality. On this subject, Gilles Lipovetsky and Jean Serroy argue that the function of cinema is to build the perception of the

55 Jonathan Beller, cited from "Interview: Jonathan Beller," by Gavin Mueller, September 30, 2013, *Edges*, <http://edges.gmu.edu/interview-jonathan-beller/>.

world beyond its other narrative and expressive functions. According to these authors, cinema is a form of art that exceeds representation and actually produces reality.⁵⁶ More than any art form before it, cinema influences people's perception of their self and that which surrounds them: it simulates and thus transforms the world. As such, knowledge of cinematic devices can be put to good use by policy-makers in order to affect subjectification in the urban realm. In relation to the transformation of the city according to cinematic techniques, Lipovetsky and Serroy point out that:

Everywhere, the city-centers are increasingly treated as décors, lit by studio projectors, arranged by urban planners-set designers, drawn by designers-decorators, with a mise-en-scène according to a touristic aim that, framing the gaze, imposes a cine-vision. We visit them as if watching a movie.⁵⁷

The relocation of the cinematic from the film theatre into the streets implies that cities are treated like film sets: they are lit like plateaus in order to perfect a mise-en-scène that conforms to control strategies and capital production reinforcement techniques. These are prepared in such a way that they provide a controlled visibility of the city: a vision that will be captured by webcams and spread on the Internet. Lipovetsky and Serroy conclude on a positive note, perhaps a hopeful appeal to people's sensibility when handling matters that pertain to surveillance and the attention economy:

What the screen universe has brought the hypermodern man is less, as is frequently claimed, the reign of total alienation than new possibilities for critical distance, ironic detachment, and aesthetic judgment and desires.⁵⁸

Even though my argument tends to be less hopeful and more critical than what Lipovetsky and Serroy aim for, it is indeed interesting to observe

56 Gilles Lipovetsky and Jean Serroy, *L'Écran Global: du Cinéma au Smartphone* (Paris: Éditions du Seuil, 2011).

57 Ibid., 340.

My translation of the original: "Un peu partout, les centres-ville sont de plus en plus traités à la manière de décors, éclairés par des jeux de projecteurs, façonnés par des urbanistes-scénographes, dessinés par des designers-décorateurs, mis en scène selon une dramaturgie à visée touristique qui, cadrant le regard, impose une cinévision. On les visite comme on regarde un film."

58 Ibid., 343.

My translation of the original: "Ce que l'univers écranique a apporté à l'homme hypermoderne, c'est moins, comme on l'affirme trop souvent, le règne de l'aliénation totale qu'une puissance nouvelle de recul critique, de détachement ironique, de jugement et de désirs esthétiques."

and analyze the ways in which the available visual materiality can be used creatively so as to navigate and transform contemporary urbanity.

Over the course of this chapter, I have analyzed contemporary forms of the Panopticon and compared them with the original architectural device created by Bentham. In order to do so, I made use of the writings of Agamben and Foucault to identify and examine the continuities between the apparatuses within panopticism and post-panopticism, thereby taking the webcam as a surveillance device the central matter of concern. From the perspective of contemporary forms of surveillance, I have analyzed the aspect of the simulation of surveillance, theorized by Bogard, when the webcams play out all possible scenarios. As I have established, webcams occupy a central role in contributing to the multiplication of the subject, because their mode of production is anchored in the laboratorial aspect of the Panopticon and its consequent self-replication. To define the mode of production of the webcams I have analyzed Beller's theories on the cinematic production of capital that extends to all contemporary forms of visibility, including the Internet. When applied to the webcams, knowledge of the inner workings of the apparatus allows for a production of imagery that affects everyone involved, as I demonstrated with Farocki's and Palm's examples.

In conclusion, the attention economy depends on a passive subject who interacts within the boundaries of the code that restricts access according to his or her online profile. To go back to Lipovetsky and Serroy's optimism when it comes to the creative potential of these visual technologies, one should critically engage with film techniques in order to understand how they influence and simulate people's encounters with urban life. This happens not only when the city centers are beautified for pleasing visiting tourists, but also when allegedly innocent webcams are put to use to film a specific street from a particular angle. Moreover, it is useful to further explore the way in which visual narrative productions have evolved with the advent of networked digital video surveillance. In the following chapter, I will conduct a comparative analysis between the classical cinematographic apparatus of mainstream film production and the emerging cinematic medium of the webcams.

Chapter 3

From Cinematographic to Cinematic Apparatus

The present chapter analyzes the notion of the apparatus beyond Agamben's study of Foucault's terminology as discussed in the previous chapter. The notion of the apparatus now applies to the dispositif of the film medium. This theoretical approach changes focus from the surveillance apparatus of the Panopticon, in Foucauldian's terms, to the structure of the classical cinematographic apparatus as defined by French film theorist Jean-Louis Baudry in "Ideological Effects of the Basic Cinematographic Apparatus."¹ Baudry's theories will serve as a basis to compare the influence on subjectification by classical forms of film production and my conceptualization of the emerging cinematic apparatus of the webcams. What follows is a technical analysis of traditional cinema and the medium-specific characteristics I have identified when making films with webcams.

The Classical Cinematographic Apparatus

3.1

According to Jean-Louis Baudry, a film's meaning is constructed independently of the narrative content being projected and viewed. Instead, it is predetermined by the cinema *machine*, i.e. the mechanisms of the cinematographic apparatus. Involving more active elements than the actual materials, equipment or tools in place to create a film, the machine encompasses the whole process and context of production. Baudry calls this the hidden process of *the work*:

Between "objective reality" and the camera, site of inscription, and between the inscription and the projection are situated certain operations, a work which has as its result a finished product. To the extent that it is cut off from the raw material ("objective reality") this product does not allow us to see the transformation which has taken place.²

It can be inferred from this quote that the production of film by the cinematographic apparatus makes it an ideal medium for passing ideological matter onto the spectator. Although I disagree with Baudry's apparent

1 Jean-Louis Baudry, "Ideological Effects of the Basic Cinematographic Apparatus," in *Narrative, Apparatus, Ideology: A Film Reader*, ed. Philip Rosen (New York: Columbia University Press, 1986).

2 Ibid., 286.

conception of the spectator as a passive receptacle of information, his claim concerning film's impact on subjectification is useful to the present dissertation. When analyzing the classical cinematographic apparatus in order to compare it to webcams, it is important for one to study the ways in which the work produces content of an ideological nature, according to Baudry. By analyzing both apparatuses in parallel, one can take a more informed approach to the study of the maker's and the spectator's positions within the contemporary mode of production and archiving of online-generated audiovisual materials.

Several similarities and differences arise from this comparative analysis: for example, a similarity between the webcam and the classical cinematographic apparatus is that the narrative offered by both of these instruments is determined by the technology of the apparatus and its own storytelling mechanisms. These are supposed to remain hidden and subliminal. The work is left in the shadows in order to create a product (the film in the first case and the stream in the latter) that tries to encompass a coherent narrative universe. When defining the classical cinematographic apparatus, Baudry describes the work as a process of transformation divided into four different phases: the *découpage*, principal photography, montage, and projection. Should the hidden workings of this process of meaning formation be exposed to an allegedly unsuspecting public, the ideological effects of the apparatus would be reduced and its influence on reality would become less efficient.³ The way the apparatus functions needs to be subtle and correspond to a coherent narrative that keeps the spectator believing in its reality. An example of this would be early cinema's preference for orthochromatic film to better photograph the hero's pale skin, as others would not properly reflect the light and so appear featureless.⁴ It was frequently used by western filmmakers with a biased sense of history but it was never advertised as a practice. Veiling the functioning of the apparatus contributes thus to competently bringing across a chosen narrative in accordance with an ideology by means of obscured mechanisms.

The classical cinematographic apparatus has been deconstructed in the past by the then-emerging film trends of Italian Neorealism, the French Nouvelle Vague and later the American New Cinema. These movements exposed the artifice of cinema by stripping it down and exposing its construction. The cinematographic apparatus was laid bare by filmmakers like

3 Ibid.

4 Douglas Collins, *The Story of Kodak* (New York: Abrams, 1990).

Roberto Rossellini and Jean-Luc Godard who took it apart, with the purpose of allowing the spectator to experience liberation from an *a priori* determined spectatorial position. These filmmakers experimented by disentangling themselves from the constraints imposed by traditional practices – mostly dictated by Hollywood. Through such experimental practices, they exposed the medium and contributed to changing the position of both the spectator and the maker. Freed from ideological constraints, the medium could be used freely to express ideological concerns challenging the status quo. The spectator could achieve some sort of liberation when allowed space for recollecting and interpreting the imagery in a personal fashion. The example of the long take that was introduced at the time is known as a means of giving the spectator the choice of where to lay the eyes, hereby drawing individual conclusions.

Several experimental practices with the apparatus, even as it became gradually more mobile and transitioned to digital, have contributed to a further understanding of inner workings that could be manipulated in order to subvert expected outcomes from more classical and traditional approaches. In-depth analysis of the apparatus of webcams may help us understand how the medium works and identify the initial aims and notions associated with its surveillance principle. Additionally, it may problematize the roles of the owner, the viewer, those who are filmed, the makers appropriating the material, and the public encountering its artistic results. By focusing both on the role of production and spectatorship, this chapter will proceed to analyze the different elements identified by Baudry as constituting the film apparatus (camera, projector and screen – with “découpage,” or pre-editing, and “montage,” or editing proper, as intermediate stages). The complex medium of the webcam will be compared to the classical cinematographic apparatus by having each of its mechanical/digital elements analyzed in parallel fashion. Further, I will study the elements Baudry leaves out of his analysis – mise-en-scène, acting and authorship – and compare the notions as they apply in classical cinema and in the case of the webcams. Through such a method I aim to construct a notion where the webcam emerges as cinematic apparatus.

The Camera

3.1.1

In his article entitled “Ideological Effects of the Basic Cinematographic

Apparatus" (1986), Baudry begins with the camera as the first element subjected to analysis. He discusses the analog film camera as a camera obscura and a motor moving the celluloid strip at even tempo. This is a camera that photographically captures the real life action that develops in front of the lens. When observing the webcams, we are aware of the development in technology that involves the transformation of molecular materiality into a digital signal, a convergence process through which light becomes data. The implications of this provoke several debates around the creation and the postproduction of images. In *What Cinema Is!*, Dudley Andrew writes that "[i]n audiovisual entertainment, cameras are at best conveniences, potentially dispensable as computer technology improves."⁵ Referring to the disappearing indexicality of the analog celluloid filmstrip, Andrew focuses on the potential of Computer Generated Graphics (CGI) to create images from non-existing material objects or in the absence of such objects. He points out the fact that cameras may no longer be regarded as required to record visual stimuli since imagery becomes increasingly computer-generated.

It may be argued that Andrew is right to point out the obsolescence of cameras in the age of CGI, where characters do not necessarily correspond to pre-existing bodies in the material world. However, as acknowledged in the previous chapters, the trend is not to reduce the amount of cameras but instead to multiply them, at least when our observation is directed at the dissemination of video surveillances devices. What Andrew is questioning here is the stake of the documental value of CGI imagery (or any other for that matter) when the referent attached to the materiality of analog images seems to have gotten lost. According to him, beyond the creation of referential or non-referential imagery in film, digital indexicality and documental value is frequently debated as of late:

Does not cinema require a source or referent in the world? And even if captured by a (digital) camera, motion pictures can now be manipulated at will, as in animation. Yet, the documentary has never been more in the forefront of discussion, as questions about the trace, visual memory, and authenticity – often alluding to André Bazin – have returned with real force.⁶

As he notes, even if most imagery may be manipulated for creating

nonexistent beings and realities, the role of the camera has not been diminished but instead awarded greater emphasis. Leaving the in-depth study of analog/digital referentiality debate for chapter five, I will focus at present on how and why cameras in general have become increasingly pervasive, rather than tending toward disappearance or substitution by CGI. This includes not only surveillance cameras but also those embedded in most computer devices generally used, whether mobile or stationary. Regarding the increasing domestication of camera use, Andrew enumerates several instances that demonstrate how cameras have in the last several decades become an indissociable part of the social fabric. For generations, they have accompanied and recorded every major moment of family-related existence: birth, first steps, graduation, marriage, and so forth:

The camera is not only indispensable for domestic life, but the very fetish of family identity and solidarity. Reality TV names an entertainment obsession that is equally dependent on the camera far more than in the days of celluloid, today's cities are monitored by cameras.⁷

Thus, in Andrew's words, the camera has become "far more than a vestige of a fading cinema culture" since it occupies a central place in documenting the existence of human life and establishing a relation between people and the world.⁸ The latter is constantly mediated by recording devices, and is therefore based upon a perception dictated by these same devices. Our knowledge of the world would be a different one if not mediated by cameras and our relation of affect with these devices.

As Andrew claims, when analyzing André Bazin's writings about the camera, "Bazin, less interested in the freedom of the imagination, focuses on the power of the photograph to amplify our perception, 'teaching us' what our eyes alone would not have noticed."⁹ It can be inferred here that the medium of the camera is central to the perception of what surrounds us, since it allows the human being to experience a reality beyond the empirical modes restricted by limited bodily senses. The photographic, filmic, or televisual camera amplifies the eyes' ability to see and, therefore, enlarges the scope of what the brain assimilates as visual information. As mentioned in the introduction, when employing Bruno Latour's ideas about tool making and

7 Ibid., 3.

8 Ibid., 4.

9 Ibid., 4.

impact upon the world (see Introduction), these cameras amplify our vision while simultaneously transforming it in the process. This necessarily impacts on thought processes of knowledge formation about the world. Bazin provides a good example of the magnitude of this impact when he describes the live event transmitted by television as the moment when “the documentary becomes contemporary with the spectator”¹⁰. When watching the live transmission, the spectator is thus directly involved in the event. Here vision becomes equated with involvement with experience.

If Bazin’s example is applied to webcams, the event at the center of live TV can be whatever street action may occur while cameras stream live on the Internet. As a matter of fact, live streaming can be considered the contemporary correspondent to 1960s live TV – a standard that has not exponentially changed since Bazin experienced it. In any case, if the spectator’s involvement in the live event is central to the documentary value of live TV, webcams may have the same effect when users observe in real time a stream from a street. Applying Bazin’s observations to the study of the webcam, one notes that the camera amplifies the perception of the event by implicating the viewer, and does so by exposing the close relations between the viewer and what is viewed. If we conclude that the camera, as part of the cinematographic apparatus and later, that of live TV, has evolved into the webcam, these relations extend to both the people in the street and to those who observe them in a live documentary image transmission. The simultaneity and multiplicity creates a cinematic space connecting the people, the events and the cameras.

To reiterate, the camera entered the digital age by multiplying into several devices that operate beyond the scope of filmmaking. Their referent is no longer analog, meaning images can be created digitally, but the fact that webcams supposedly stream in real time imparts them with a documental value connecting the viewer to the event being filmed. To further shed light on this specific creation of visions and relations between subjects and objects, I will presently focus on how they occur. The cinematic space, which has moved beyond the film set (production) and the film theatre (spectatorship), is created according to mechanical and digital processes, of which I will now describe specific elements in relation to the camera. In order to establish a thorough study of the more technical aspects of principal photography, I will draw from the analytical writings of Baudry and Christian Metz and

the didactic approach of David Bordwell and Kristin Thompson. Via a combined use of psychoanalytic theories related to the ideological apparatus and a description of the technical language of old and new film media, I will identify a differentiation between the cinematic dimension of a networked system of webcams and the *contained* cinematography of film cameras.¹¹

Cinematography

3.1.1 .1

Concerning cinematography and specific principles that are inherent to film language, in the classical cinematographic apparatus the position of the spectator in relation to the filmed object is provided by the camera and obeys strict rules. According to Baudry, these have been determined by Italian Renaissance perspective conventions; they intend to provide the viewer with an illusion of truth, i.e. the image of an organized environment or universe, according to a harmonious hierarchization of subjects and values.¹² They have been applied to the point of view that the camera is supposed to reproduce when it captures the so-called objective reality: *a normal* point of view, free from perceptible visual distortions. As Baudry explains:

The use of different lenses, when not dictated by technical considerations aimed at restoring habitual perspective (such as shooting in limited or extended spaces which one wishes to expand or contract) does not destroy [traditional] perspective but rather makes it play the role of norm.¹³

As much as the classical cinematographic apparatus may be deemed similar to that of the webcams, a big difference immediately sets it apart when it comes to the camera: the position of the filming device does obey particular rules, but these are not necessarily the same established in the Renaissance by the incumbent aesthetes. According to Jean-Louis Comolli, the rules for choosing a particular shot (influenced not only by lenses, but also by the camera position) have little to do with technological advancement, but rely instead on social conditions in which such decisions are made.¹⁴ In classical cinema, the feel of reality according to Western consensual aesthetic rules was the main

11 This approach does not entail that the cinematic did not pre-exist webcams, but rather that it has extended filmmaking and its instances of production to all levels of life.

12 Baudry, "Ideological Effects of the Basic Cinematographic Apparatus."

13 Ibid., 289.

14 Jean-Louis Comolli, "Technique and Ideology: Camera, Perspective, Depth of Field [Parts 3 and 4]," in *Narrative, Apparatus, Ideology: A Film Reader*, ed. Philip Rosen (New York: Columbia University Press, 1986).

guideline for choosing optical equipment and the placement thereof. If one questions why most webcams have a similar point of view, one could deduce that it is not only related to technical limitations. In fact, there might be a distinct reason behind a careful positioning by the maker, or the owner, with spectatorial consequences. As is known, the majority of webcams are placed above the subject's eye-level, in most cases in *piqué* or even *birds-eye view*, revealing a frame that suggests an omnipresence of the eye that watches all from above and subjugate whoever is filmed. This accentuates the cinematic aspects of public space, instilling an awareness that there may be someone watching or recording at all times, and that the location in which one moves has become a film set with cameras perched in high spots that cover vast areas of visual space.

In order to further analyze how these images are formed following codes of cinematography both with film cameras and webcams, I make use of simplified technical explanations present in Bordwell and Thompson's *Film Art: An Introduction* (2010). According to this book, there are three ways to choose to film a specific action, which include the photography, the frame and the duration. The first aspect can further be divided into the range of tonalities, the speed of motion and the perspective. All of these are logical choices made by the director and the cinematographer according to the desired visual effect and its preponderance for the narrative. In this manner, when it comes to controlling the photography of the shot, the filmmaker can choose to produce footage that is exposed for a determined purpose: an evenly bright *high-key* lighting will contribute to a softer and more reassuring atmosphere compared to other gloomier cinematography choices.¹⁵

If one considers webcams and their technology, it can be argued that their limited technological capacity may stand in the way of the potential to control expressive abilities of the medium. For instance, if the image is in black and white and there is no adjustable contrast, then the image quality may not be controllable to meet a desirable degree of expertise. Beyond the issue of whether or not these limitations are presently politically or economically determined, it is plausible to predict a near future in which webcams have reached the standards of film cameras (high definition). Once the technical constraints have been overcome by technological progress, the owner will be able to control the photographic aspects and the atmosphere that will be attributed to the framed reality. In any case, in the current state of

affairs, and taking into account most of the deficient optics in place, several effects are achieved automatically: as cameras provide a vision dependent on their optical quality, the majority of dark streets will appear even darker and bleaker on screen. Sunny days will, on the contrary, be recorded as imagery burnt by throbbing white blotches of sunlight and saturated colors, providing it with a “happy” look. When it comes to perspective, this is defined by the lens used in the camera, which will have an impact on the size of the object being filmed and the depth of field.

The particular usage of a focal lens also influences the experience of the spectator, regardless of its state of the art. For example, wide-angles and telephoto lenses may create distance between the subject and the background or flatten the image. Most webcams use a wide angle, but rarely fish-eye lenses, thereby allowing the viewer to have access to a vast portion of visible space, which is made possible by the coverage of the lens but with minimum distortion. Some webcams also offer possibilities like the zoom to allow the viewer to change the focal length in real time by remote control: this way, one can watch over a beach and then zoom in on a particular sunbather, according to one’s interests. As far as focus abilities are concerned, the webcams, being ordinary video cameras, are equipped with standard deep focus, mainly due to the fact that this is a characteristic of light processing in video camera’s chips.

My film *Bucuti 2121212* (2012) (**Fig. 8**) consists of an experiment in which I explore mechanical abilities of webcams, showing a long zoom-out that slowly discloses a beach in Aruba. In this short film, I push the aesthetics of the medium to its limits by exaggerating and forcing its zooming capabilities. The camera, owned by a hotel, has a very low resolution and

Fig. 8 *Bucuti 2121212* (Paula Albuquerque 2012)

anything remotely zoomed in on quickly develops into an agglomerate of gigantic pixels. What I found so appealing in this camera was its unusual capacity to produce enlarged pixels with perfect edges, completely in focus. These pixels formed geometrical shapes rather than recognizable human figures, for example, of tourists lying on the beach. The simple cinematic artifice of the zoom creates shifting compositions of squares, spontaneously producing modernist imagery coupled with harmonious colors, and in that manner subverts surveillance purposes. These aesthetics that fascinate me directly result from the specific technical abilities of this webcam. However, not all cameras share these exact characteristics. In fact, from my experience, each camera is different and holds diverging potentials. Nevertheless, as pointed out before, most cameras possess deep focus, even when they allow for zooming intervention.

Emerging film techniques soon become unquestioned standards. I believe that this is also the case with webcams. In agreement with Comolli, I argue that their technical potential is determined by the social context that governs their emergence and the appearance of their imagery. It is interesting to look back and understand how deep focus came into being and to observe the way in which it is sparsely used in fiction film, but frequent in documentary-related visuals. While questioning the timing of the emergence of devices and techniques, Comolli points out that the appearance of a technical possibility is determined by the ideological reasons that condition its inception. In the first twenty years of cinema, *medium* focus lengths were used.¹⁶ But the codes that had dictated by then what realism was and what it should be, altered with the introduction of deep focus. Video cameras have inherited this new standard of realism, which webcams still make use of: an increased depth of field that allows to clearly see all elements contained by the frame in stark sharpness. This is still the standard in documentary filmmaking, which soon embraced video recording and hardly ever made use of analog-like depth of field. As webcams make use of optics producing similar visuals, their imagery is automatically imbued with a documentary stance. Thus, to recapitulate, webcams use cinematographic techniques that produce imagery identifiable with constant observation, e.g. piqué perspective of camera placement; and documentary value, e.g. video deep focus. The fact that the images are sub-standard, furthermore, contributes to their accentuated layer of veracity, which is supported by the simultaneity of the transmission.

16 The standard of *medium focus* was, and still is, 50 mm in photography and 80 mm in film cameras, depending on the distance between the lens and the shutter window.

When it comes to the second aspect conditioning or potentiating image production in the camera of the classical cinematographic apparatus, i.e. framing, Bordwell and Thompson point out that a frame is more than the outer limits of the screen. The frame determines both what it depicts within its borders as well as what it leaves out. It specifically shows those elements that have been selected as the most relevant aspects of the visuality available on the film set: the frame determines what the public is allowed to see and experience from the entire field of vision.¹⁷ This aspect is relevant for the present analysis of the cinematography of webcams, since the observer is not given overviews of a whole city when trying to access the stream online; rather, the viewer is offered a selection of moving images of the urban space, a small portion of framed visions that portray and stand for the reality of that same city. These consist of the most attractive angles on shopping streets, monuments, etc. As for the format, the webcams, possibly in search for a standard provided by the rectangle, have mostly adhered to the classical format of the 4:3 (at least for the time being), which further reinforces the illusion of the documentary status of its imagery.¹⁸ The choice for a particular format may help to guide the perception of the imagery by leading the viewer's gaze through the space of the frame.¹⁹

In order to achieve other levels of expressiveness, or in the case of experimental approaches to filmmaking, multiple frames can be used. The narrative potential then becomes more complex, as the action may take place on several screens, both simultaneously or in alternation. The multiple-frame-based film form specifically stands out as an example of the experience of a video surveillance monitoring room, with its multi-screen video wall. As such, the action captured on the streets may be displayed on several screens: for instance, a person may be followed while stepping from one framed image to another while being filmed by several cameras during a short walk. There are several issues that can be studied and analyzed in relation to a multi-screen approach to webcam filmmaking. An intriguing thought occurs, for example, when the person followed by the gaze of the observer steps into a blind zone and one could wonder, consequently, whether the presence of this person in the same street can still be taken for granted when offscreen. In traditional cinema, the offscreen of the frame still offers continuity to the action on screen. If we apply this elliptical narrative device to webcam

17 Bordwell and Thompson, *Film Art*.

18 As Bordwell and Thompson point out in *Film Art*, cinema is the first art form to have adopted this fixed geometrical shape as a standard. There are, however, deviations from this. An example is the film *Mommy* by Xavier Dolan (2014), where the director has chosen for the square as frame of choice (1:1), which provides the film with a very particular atmosphere. It suggests a certain vertigo, which the stability of the landscape rectangle would have prevented.

19 In *Bucuti 2121212* I have changed the original format, which was the standard 4:3.

footage, then people's presence is considered just as real when it is being visually documented by their image within the frame, as it is when it is not documented. While moving in-between cameras and, thus, going off-screen, people are still there, only waiting to be captured again and again, for example, as they shop in a street lined up with video surveillance devices.

In determining the emergence of specific camera positions and the reasons webcams produce imagery with determining technical features, there are several aspects that should be taken into account: the angle, the level, the height, and the distance of framing as understood in traditional filmmaking. According to Bordwell and Thompson, there are three general categories determining the camera angle: the straight-on angle, the high angle, and the low angle.²⁰ The terms are self-explanatory, but it is nevertheless interesting to briefly mention the already implied high angle of a webcam by referring to its piqué perspective, which results in the camera looking down on the subject being filmed. When it comes to leveling, webcams are mostly parallel; however, since some of them can be remote-controlled, they may sometimes be tilted. When it comes to the height, webcams are definitely almost always positioned higher than the people being filmed, usually on the same level as billboards and other advertising materials or street lamps. The distance from the subject can vary as well, from close in a bank or shop to very far away when placed on top of a tall building. This implies that a choice can be made between the extreme long shot, the long shot, the medium shot and the medium close up. As I have observed so far, experiencing close-ups and extreme close-ups is not common when observing webcam streams from public spaces, except when the remote user zooms in on a particular subject. However, this normally pixelates the imagery to the extent that facial features are reduced to a couple of blurred colored squares and deemed unrecognizable, and therefore not fit for documentary purposes.

All of the previously mentioned categories can sometimes be found within a single shot, through a movement within the camera's axis or that displaces it and changes the frame. These include standard techniques such as pans, tilts, tracking and crane shots, which can take place separately or in combination, thereby affecting our sense of space within the frame, as well as the space that lies beyond the frame. Furthermore, space is not the only element that alters under the influence of frame mobility: time, too, is tampered with when the mobile frame affects the viewer's perception of time

and rhythm.²¹ A camera movement happens in duration and thus affects the viewer's sense of anticipation: should the camera movement be fast or slow, a different reaction will be elicited in whomever is observing the camera. As I mentioned before, a webcam can be accessed remotely, which means that, in some cases, the end user can control the camera reach. Another person, whose identity is normally undisclosed, might simultaneously control the camera elsewhere in the world. I have experienced that observing someone else's manipulation of the camera, his or her choices for framing, influences the mobility of the frame, thereby creating or destroying my own viewing expectations.

As an example, my film piece *PAN* (see **Fig. 9**) shows the resulting imagery of a webcam slowly panning over a park. Observing this single camera movement has caused a chain of conflicting emotions from myself as passive observer as I chose not to actively manipulate the camera. As a spectator, I remember interrogating myself about why the camera was so intensively panning over all the park benches, as if it was looking for a specific object or searching for someone. Eventually, the pan ends on the water and performs a short zoom in before crashing. I decided to save this footage and use it in an installation because of the fascinating and somewhat unexpected narrative density conveyed by a single camera movement. This narrative is all the more poignant, since it was filmed with equipment that conveys footage with documentary value, which I recognized, being a spectator knowledgeable of filmmaking codes (like most people, I instinctively apply these codes to any moving image I encounter). The documentary stance of this imagery, which includes the potential of filming an event, left me with the unanswerable question: what could I have been witnessing had the transmission not been interrupted? The moving frame of the webcam, which captures events in real time, implies a continuous take, a single shot that may take days or months if the transmission is stable enough. And when it lasts, it may register all sorts of occurrences; or, precisely, nothing at all, as in the case of my film *PAN* (2013) (**Fig. 9**).

Until they are interrupted by a technical failure, webcams film and create footage in a continuous single shot, filming for long stretches of time, provided that the Internet connection is strong and stable enough. In early cinema, films frequently consisted of uncut footage, with the duration in minutes matching the length of the reel. Soon, editing practices started to

Fig. 9 PAN (Paula Albuquerque 2013)

combine shots and build the visual language of cinema. This was mainly due to the fact that reels had such limited lengths, as directors could not film feature length movies with analog cameras. As is well known, Alfred Hitchcock simulated a single long take with *Rope* (1948) by hiding the cuts in fleeting images with dark shadows during camera movements. It is only with the advent of the video camera that the single long shot became possible. The example of Alexander Sokurov's *Russian Ark* (2002) is emblematic, for which the director chose to hire the cinematographer of Tom Tykwer's *Run Lola Run* (1998), and employ this Steadicam expert to shoot an uninterrupted action of 90 minutes. One could argue that most webcams are stationary, and thus that the action capture cannot be equated to the opulent potential of the Russian master's film. However, should one take into account the fact that there are webcams streaming live from four-wheel drives on websites that offer cyber-safaris, their standard endless shots grow into potential action-

filled live streams. In such cases, when mobile webcams are car-mounted on Jeeps, wildlife can be documented around the clock and the camera offers a subjective point of view on the contingent of African bestiality producing an exciting real time immersive experience.

As I demonstrated so far, the specific operating and production mode of webcams are mostly in continuity with techniques that have been developed by the cinematographic apparatus. The differences that set them apart are characteristic of each respective media. This implies that the consistent, apparently less creative use is specific to webcams, and could be the reason for the reduced artistic involvement with their aesthetic potential (even though it is increasing at present). To recapitulate, there are technical differences between these processes that influence the output of the cameras. For instance, instead of the standard use of one camera in classical principal photography, in which all the filming conditions are created in a controlled film set, there are many webcams scattered apparently at random all over the urban space. Their position is mainly piqué, and most of them are immobile, whereas in traditional filmmaking a single camera will be used to shoot from several angles, moved around in order to film the desired point of view. But the single most salient characteristic of webcams, which sets them apart from the film camera of the classical cinematographic apparatus, is the fact that the visual data being captured, are immediately streamed to and seen by the viewer as an uninterrupted shot.

Even if analog film cameras have built-in systems that allow a video signal to be monitored while the actual footage is being generated, the final result will only be seen after the filmstrip is developed. In the case of high definition cinema, it is possible to watch the material while it is being recorded, but each shot still requires editing in most standard film productions. The technical process of watching has changed exponentially compared to the times of traditional cinema, when rushes had to be projected onto a silver screen in order to be watched by the filmmaker, the cinematographer and producer before the images would ever reach the public. With webcams, this process of image production and consumption is compressed, which causes the projector to disappear and the computer screen to become the virtual viewfinder of the camera, in a process similar to the already mentioned live TV. Moreover, some of these webcams can be controlled remotely so that the user is able to adjust the frame, perform

pans and tilts, but also zoom in. In such cases, and this sets them apart from live TV, webcams provide an extra layer of controllability. No longer a mere passive observer, the user can interact with the capture process of a webcam image, as an additional cinematographer. This has enormous repercussions for the status of the spectator as well as for authorship. Before analyzing these aspects, however, it is important to further compare the viewing modes of the cinematographic apparatus and those of webcams, by examining the role of the disappearing projector and the changing status of spectatorship.

To briefly summarize, I have in this section identified continuities and differences between the traditional cinematographic apparatus of conventional cinema and that of the cinematic apparatus of the webcams in relation to the actual technical device of the camera. Even if the visual-based language of the analog film camera serves as a basis for understanding webcams as media of image production, there are three main identifiable technological developments that differentiate it from the first. To begin with live streaming, webcams simultaneously show the viewer what they are filming, which implies that the one recording the image, the camera operator, does not need to be on the site, as is the case in traditional filmmaking. This, for instance, allows for the anonymity of whoever may be viewing the image, collecting it, as well as detaining the rights for using the recorded audiovisual material, which used to be granted to the producer in classical filmmaking. Secondly, webcams are networked, generally multiple and surround the object, rather than being singular and requiring to be moved around the set. They may also be mobile, as in the aforementioned case of the jeep-mounted safari cam, but their main characteristic is that they are spread out, stationary and frame their premises. Finally, webcams film in a single shot, thereby producing potentially endless footage, except when there is a transmission or compression problem. All of the above medium-specific features contribute to enhancing the webcam's cinematic potential by creating an immediacy of contact with the imagery of the reality being filmed, as well as changing the public space where they are located, thus creating an urgent sense of photogenic awareness.

Projection: The Projector and the Screen

3.1.2

The projector is central to Baudry's apparatus and its ideological effects in that it provides movement to the images and immerses the spectator in the universe of the narrative. In this section I analyze the current status of the projector and the screen by comparing these technical elements in both traditional film production and experiments with surveillance footage.

In referring to the relation between film studies and production analysis, Andrew remarks: "despite Débray's claim that a mighty change has taken place in the last two decades, most films today are planned and carried out just as films have been since the 1930s."²² In fact, in essence, film production has not suffered major changes since the inception of the studio system in Hollywood. Technology has not exponentially affected the stages of pre-production, principal photography and post-production. What Andrew identifies as the real change, lies mainly in the impact digital distribution has had on cinema viewing. It is the actual collective experience of going to the movies that has suffered considerable change, and this is mostly felt in film projection.²³ Andrew goes on to say that:

Viewers who used to huddle together under the big screen now put the film at their mercy, watching it how and when they like, often alone or with family and friends, pausing, rewinding, even reworking it if they choose.²⁴

To put it simply, what the author is referring to is the contemporary change of habits that determine audiovisual content consumption. With the widespread use of smartphones and tablets, films have been reduced to more than one thousand percent in size, in order to fit into and match the resolution of the multiplicity of mobile screens. In most cases, this actually implies the elimination of the projector, as the majority of visual content will most likely never be projected in a film theater.

In classical cinema, the projector provides the illusion of continuity of movement in the images and allows the fantasy of *unity* to be delivered to the spectator sitting in the film theatre. As Baudry puts it, "the projection

22 Andrew, *What Cinema Is!*, 67.

23 Bordwell and Thompson, *Film Art*, 67.

24 Ibid., 68.

operation (projector and screen) restores continuity of movement and the temporal dimension to the sequence of static images.”²⁵ In the specific case of webcams, the projection in the classical sense entirely ceases to exist, since the moment of viewing the live stream on the computer monitor is virtually equal to its recording on camera. However, if one were to equate the computer screen with the traditional silver screen, the illusion of movement provided by the mechanism of the projector is comparable to that of webcams, as it is determined by transmission and frame rate. This perfect continuity occurs rarely due to the fact that the (at present) uneven refresh rate, which also influences compression, constantly breaks the illusion of smooth movement. Such situations probably also happened with the first projectors, whose mechanism frequently jammed, provoking the burning of celluloid strips, etc. Presently, most webcams live-feed a stream of less than 4 frames per second, which necessarily jerks the motion and breaks the desired smoothness of action, which ensures narrative coherence and continuity. This seems to be a disadvantage when compared to the case of an actual projection, in which the feel of reality remains unbroken by the machinery’s perfect performance at displaying 24 frames per second or any other standard, including high definition digital video projection. In Baudry’s words “[w]ith continuity restored, both meaning and consciousness are restored,”²⁶ which is the condition required for the ideological aspects to be carried out by the film and imprinted on the spectator.

In this manner, in order to bring its ideological message across to the spectator, the apparatus relies on the good functioning of its machinery at every step of the process. However, in the case of webcams, we appear to have a different reality altogether when it comes to producing meaning: here, *the feel of reality* is reinforced by the erratic image transmission and perception. When observing low-resolution jerky imagery, one is infused with the feeling of watching something even more real than if these images would match the sharpness of traditional cinema. Moreover, the conventional processes of the classical apparatus, including those of the perfectly smooth projection, seem to have acquired a markedly fictional nature, due to the present common knowledge of its construction artifices. The formulas of classical Hollywood films are still prevalent today, but one knows that the portrayed narratives are fictional due to the recognition of the apparatus: Spiderman²⁷’s leaps and bonding are anything but real, even if the smooth movement, enabled by

25 Baudry, “Ideological Effects of the Basic Cinematographic Apparatus,” 290.

26 Ibid., 291.

27 I am here referring to Sam Raimi’s *Spiderman* series between 2002 and 2007.

correct editing between the frames, and its perfectly corresponding projection give us the illusion of a seamless action. However, should the projected image show glitches – something people in the age of the Internet have become accustomed to as part of transmission/compression noise – the imagery would achieve the (contemporary) feel of reality. Since the standards have changed across time, a new medium like the webcam emerges and copies the languages of its predecessors, but in doing so, it contributes to a retrospective evaluation of preceding codes and rules. Following this logic, the noisy imagery with intermittent transmission problems of webcams provokes a higher degree of spectator immersion than perfectly edited and projected fiction films.

When analyzing the role of projection in filmmaking and spectatorship, one cannot leave out the surface upon which the actual projection is realized. The screen and the projection are interdependent in the film theater since a projector always needs a screen (or a wall) to project on. However, both in classical cinema and in webcam footage, there is also a close relation between the screen and the camera. Since I have already drawn attention to the fact that the projector becomes irrelevant in the age of webcams, one needs to look into theoretical approaches to the role of the screen in relation to the camera. André Bazin has written the following words about the French filmmaker Jean Renoir in relation to this subject:

Renoir understands that the screen is not a simple rectangle but rather the homothetic surface of his camera. It is the very opposite of a frame. The screen is a mask whose function is no less to hide reality than it is to reveal it. The significance of what the camera discloses is relative to what it leaves hidden.²⁸

Interestingly enough, Bazin refers to Renoir's conscience of the close relation between the screen and the viewfinder of the camera. A porous surface through which one finds the vision, instead of a limited matte screen upon which something is projected within limited borders. Bazin sees the screen as a "filter," a kind of see-through fabric that reveals what is beyond it. In Andrew's interpretation of Bazin's analysis, the screen "concentrates vision so as to get beyond the visual to visibility."²⁹ By establishing a direct relation between the viewfinder and the screen, the potential arises for the creation of multiple plans. These come together in order to "create a perceptual volume,"³⁰ the

28 André Bazin, *Jean Renoir*, ed. François Truffaut, trans. Simon and Schuster (New York: Simon and Schuster, 1973), 87.

29 Andrew *What Cinema Is!*, 70.

30 *Ibid.*, 80.

reality (of the film) that is experienced by the audience who engages with it, when it “moves through the threshold of the frame into this volume.”³¹ The volume, in this case, is the world of the film, the reality it reveals which exists beyond the outer limits of the framed imagery displayed on the screen.

When screen forms and sizes proliferate, as manifested in places beyond the film theatre (on the streets, on billboards, in the tram, in someone’s pockets), it becomes problematized by particular instances of production: namely, the expanded cinema presented in museum institutions and its questioning of the display. For example, in a video installation, the screen is then taken out of its original context of collective experience and artificially placed within an exhibition construct that reinforces the isolation of the individual who visits the art institution.³² This is in accordance with the contemporary practices of the individual domestic consumption of audiovisual packages on TV. Similarly, the computer has done the same for private film viewing. In fact, when it comes to spectatorship and the ways in which it has changed since the inception of individual monitors, films are now watched like any other audiovisual stimulus among many media that compete for the attention of the individual: one now watches movies while engaging in social media activities that include twittering impressions during the experience, answering work-related emails and spending money in online shopping.³³ As such, Andrew argues that “[m]onitor” and “display” are more appropriate terms than “screen” to designate the visual experience of computers.³⁴

In this manner, the multiplicity of screens and their formats together with the end of the projector constitute major differences between the cinematographic apparatus and the cinematic apparatus. Since the screen shows what the viewfinder simultaneously frames, the aspect of immediacy of the cinematic is accentuated, hereby involving the viewer in the live event.

3.1.3 Spectatorship

As we again turn our attention to the cinematic experience of cinema going, it is relevant to compare identification processes with what is shown within the frame and to examine the origination of such processes by concerning ourselves particularly with the optics of psychoanalytic theory.

31 Ibid., 80.

32 Ibid.

33 Ibid., 86.

34 Ibid., 87.

With classical cinema, the frame of the screen delimits a space that, with the help of the darkened room of the film theater, gives the viewer the impression of entering a limited but complete world, the universe of the film being projected upon it. According to Baudry, it is these conditions, coupled with the immobility of the spectator in the space and the fact that the eyes are mainly the source of all perception, that contribute to a process of identification in a Lacanian sense.³⁵ Such an approach appears to imply the passivity of the spectator.

In *The Imaginary Signifier*, Christian Metz draws attention to the ways in which the spectator becomes involved in the film, and he draws out the mutual effects both spectator and film have on one another. He writes that “it is man who makes the symbol when it is also clear that the symbol makes man[.]”³⁶ According to Metz, film is “more perceptual” as it mobilizes more senses than other art forms.³⁷ The visual and auditory stimuli are combined to create an imaginary signifier that is perceived by the spectator, due to the fact that beyond the representation of subject-matter, cinema contains the absence of the physical signifier. Additionally, the film itself shows the viewer the absence of his or her body by reflecting the absence of the spectator from the movie. In his description of the spectator in reference to the theories of Jacques Lacan, Metz remarks: “unlike the child in the mirror, he cannot identify with himself as an object, but only with objects which are there without him. In this sense the screen is not a mirror.”³⁸ Thus, the screen of classical film is not a mirror, as the viewer is the one who perceives all that is represented on it, the other, through the absence of the self. In relation to Baudry’s claim, Metz seems to support a more active participation from the viewer in the making of the signifier even when it refers to the perception of the absent individual. As Metz writes:

In other words, the spectator *identifies with himself*, with himself as a pure act of perception (as wakefulness, alertness): as the condition of possibility of the perceived and hence as a kind of transcendental subject, which comes before every *there* is.³⁹

From Metz’ claim, it becomes apparent that cinema has a more direct connection with the symbolic than the mirror does; and thus with cinema

35 Baudry, “Ideological Effects of the Basic Cinematographic Apparatus.”

36 Christian Metz, “The Imaginary Signifier (excerpts),” in *Narrative, Apparatus, Ideology: A Film Reader*, ed. Philip Rosen (New York: Columbia University Press, 1986), 246.

37 Ibid., 248.

38 Ibid., 252.

39 Ibid., 253.

secondary identification prevails.⁴⁰ Identification with characters is of the tertiary order of identification, whereas primary identification exists where the screen differs the most from Lacan's mirror.

Looking at the screen in relation to webcams, it diverges from the screen of classical cinema due to its multiplicity and mobility, as well as its network-ability. The identification with the screen is of a different nature since the viewer is not only observing others but may also be able to observe him or herself. It appears that this would result in some form of primary identification according to Lacan's mirror theory. However, due to the fact that the viewers' awareness of the cameras may influence their behaviors, other levels of identification may in fact occur, thereby necessitating more complex screen theories in order to properly study emerging levels of identification. Returning to Lacan's psychoanalytic theories, Metz's claims that the perceptual passions of the desires to hear and to see (which includes scopophilia and voyeurism) constitute the "invocatory drive, one of the four main sexual drives for Lacan."⁴¹ This implies that the general desires to see and hear are natural to a spectator who is drawn to the cinematic experience by bodily sensual impulses; this applies to cinema as well as to webcams and other media. These desires are satisfied by proxy, i.e. through sublimation, in the course of watching or encountering a cinematic experience.

While a deep analysis of psychoanalytic film theory is unnecessary for the present study, it is nevertheless important to mention that Metz outlines four different types of relation regarding the spectator and his or her experience of film; these modes can also be applied to the analysis of spectatorship in relation to webcams. The four modes are: mirror identification, voyeurism, exhibitionism and fetishism. The mirror identification takes place when the viewer identifies with the person being filmed, voyeurism occurs when the viewer is fascinated by the imagery of other people and their seeming lack of awareness (for example, paid security guards using their vantage point to watch attractive women), and exhibitionism can be equated with the actions of lifecasters, as in the case of Jenni (**Fig. 2**). The final aspect, fetishism, emerges relative to the medium itself; this mode demonstrates the motivation behind the profuse dissemination of webcams. Metz focuses on forms of fetishism that are attached to technical aspects of classical filmmaking, but also what this medium is capable of. "As strictly defined, the fetish, like the apparatus of

the cinema, is a *prop*, the prop that disavows a lack and in doing so affirms it without wishing to.”⁴² The prop to which Metz is referring can be utilized as a term to define the video surveillance device, a technology that is continuously improving and whose capabilities are lauded by authorities. The presence of surveillance implies that complete visibility will guarantee safety and eradicate threatening situations. By being present even when there is no crime to record the cameras reinforce this possibility. Like a fetish, they foreground the eventuality of a deviant occurrence.

As I have argued in this section, the psychoanalytic theories of Baudry’s and Metz’ are applicable to the webcams if we limit our focus to the role of the spectator who receives and perceives audiovisual content. However, these theories cease to be valid when we consider that the user is not only a spectator but simultaneously observes others and him or her self on multiple mobile screens and can also interact with the cameras and produce content. The relation between the spectator and the screen has thus changed: the spectator uses the screen not only to consume audiovisual narratives but also to look at the world. The screen is also a viewfinder that allows for the webcam viewer to choose what to film by capturing webcam streams and also produce content of his or her choice.

Editing

3.1.4

When the user decides to record a particular stream, he or she may wish to edit the resulting footage and instill the imagery with poetic meaning or a narrative line as with other forms of filmmaking. At this point we will turn our attention to the practice of editing in a variety of filmic media, looking at its implementation in formats ranging from cinema to the webcam to compare the processes that the different approaches involve. Surprisingly, even if relevant to apparatus theory in general, Baudry did not write extensively about *découpage* and *montage* beyond mentioning them as intermediate stages of film production.⁴³ However, since I find editing to be relevant to this dissertation, I will be examining both *découpage* and *montage* in the case of webcam film production. In this section I will address the specifics of traditional cinematic continuity editing, and will specifically focus on outlining those potential forms of editing used for webcam footage.

42 Ibid., 271.

43 Apparatus theories about editing and montage mainly focus on the term “suture” (like the work of Kaja Silverman, for example), which is used to name the instances of spectatorial engagement with the narrative.

As webcam editing practices extend beyond those of standard Hollywood continuity editing due to simultaneous image production and viewing, so too, the placement of several cameras allows for multiple image capture as well as the option of simultaneous viewing on multiple displays.

Dudley Andrew points to the fact that Bazin already foresaw *automatic* processes of image production and collection, several decades before the advent of webcams, that did not necessarily involve (conventional) editing:

Bazin [...] is a modern, not a classical, theorist, for he accepts the value of mere recording, and he relishes the expressivity, as well as the opacity, of the nonhuman world registered by the photographic process.⁴⁴

This is a view I find quite interesting in considering webcams, since they are constantly filming, and therefore potentially recording, with supposedly no process of montage inherent to the production of their audiovisual output. Apparently, they merely produce imagery with no human intervention. As Andrew points out, Bazin showed an interest in the plastic potential of an automatically captured reality, untouched by an editor in post-production. It may appear irrelevant to dedicate a section to *découpage* and montage when talking about the webcams, but it is nevertheless still interesting to consider the modes in which the medium is already determining the possibilities of meaning ahead of the artist's appropriation of the footage. So, for example, when considering the *découpage* phase, the maker has to consider the best options for finding audiovisual material that will adequately fit the project in the end. The film one wants to make entails prior research of pre-existing material sources for appropriation. This consists of a process somewhat equitable to that of conventional pre-production in film industry: scouting for a location, the way in which the camera frames the action, etc. Needless to say, there is only so much that can be controlled by the maker when he or she looks for material to appropriate. As a matter of fact, the pre-production of such a film would be similar to those that are made with archival material. In this case, however, that material is being produced in real time at the moment of choosing to record and collect the *found footage*.

When it comes to montage per se, most artists working with other techniques of video editing might still be acquainted with the industry's

continuity standard, which remains prevalent in most of contemporary Hollywood productions. This is a standard that the public has grown accustomed to and can competently read. This editing mode is so influential that it has determined the way in which the individual takes on the world, an understanding defined by cinematic-based logics that are of common sense. Briefly recalling the technical aspects, continuity editing relies on the 180-degree system, which refers to the position of the camera. According to this strategic technique, the action takes place within a 180-degree semi-circle determined by the axis of the camera. In short, it ensures that people coming in from the right will exit through the left, that eye lines meet, etc. When this axis is not respected, the subtle manipulation of the spectator's attention becomes fragmented and the awareness of the artifice of filmmaking breaks the continuity spell. Interestingly enough, when observing a group of webcams and trying to edit the action together, the multiple cameras will often be positioned in ways that challenge continuity editing, which is traditionally based on the fixed axis of a single camera. Nevertheless, it may also cause the imagery to feel all the more real, since documentary imagery is supposed to surprise the viewer with technical faults. But instead of dismissing the role played by continuity editing for the narrative expectations of the general public, it is more productive to continue to analyze the currently most frequently used editing modes and the ways in which these may have an impact on online content perception. As such, it is relevant to further observe aspects of temporal continuity, such as order, frequency and duration, and to see how these may be accomplished through editing techniques.

Time is organized in order to provide a logical development for the narrative and to tell the story in a coherent and chronological way. This implies a specific construction of time that matches the time of the plot.⁴⁵ As such, the time of the story is hardly ever different from plot time, unless the story time is shortened by making use of ellipses. These techniques provide the basis for the assumptions spectators will carry along when watching a film. They expect a chronological sequence of events as well as the omission of factual representation that is not central to the plot development.⁴⁶ As Bordwell emphasizes, “[i]n its most basic cinematic application, ellipses let our minds grasp something too extensive in space and time to be conveniently presented completely to our eyes.”⁴⁷ However, there are several other possibilities of editing that do not comply to these rules: techniques that have

45 Bordwell and Thompson, *Film Art*, 248.

46 Ibid., 254.

47 Andrew, *What Cinema Is!*, 41.

also educated the spectator who gradually grew accustomed to the fast-paced editing of music clips and their fragmented non-continuity based narratives. These include editing alternatives that rely on graphic and rhythmic possibilities. Experiments with editing rules, such as the principle of the axis of the camera, may also be corrupted by a creative montage: for Jacques Tati, the space of the scene became a 360-degree where the camera could decide to position itself anywhere, thereby breaking and challenging the spatial continuity of the 180-degree rule.⁴⁸ Experiments like these are particularly interesting in the context of this study. The film set of webcams is indeed defined by 360-degree spatiality potential since the cameras can be found virtually everywhere and in any position and height, at any level and angle, in every corner. Even if a webcam is expected to film what is in the 180-degrees in front of it, it may pan to film what lurks behind it (if indeed possessing this technical possibility), disclosing a circular spatiality.

It can then be argued that continuity editing may elicit a somewhat dulled reaction from the viewer who does not need to engage in making an effort to construct the story. The semiology that is used belongs to common sense to such an extent that its underlying logic is expected to be taken for granted on the side of the viewer, who is generally acquainted with film language. However, when this continuity of technology-based representation of events takes on an expressive and intrusive character, for example in Sergei Eisenstein's montage experiments, the mind is awakened by what it perceives and meaning is constructed in the viewer's consciousness and unconsciousness in a more active manner.⁴⁹ A similar approach could be applied to the potential of editing footage generated by webcams, perhaps not so much by focusing on the forced chronology of shot combination, nor by necessarily producing elliptical pieces in a time-lapse fashion, but instead by combining a set of cameras and editing the material in a discontinuous manner.

Although there could be countless ways in which to edit the material (both online and offline) produced by webcams, there are two methods that I have experimented with in my own artistic practice. To begin with, the first editing method is similar to that of live television. From this example we see that, a director or producer monitors a bank of screens in the editing room that reveal what the cameras are capturing in the studio: the directors instruct the camera operators as to which movements or zooming actions they should perform and the editors with cues as to which cameras they should

cut to. In this way, the live television environment is similar to the immense and widespread presence of webcams that cover expansive areas within a city. Should an event take place that is worth watching, these cameras allow the viewer to connect to several publicly accessible webcams in the observed area. This form of montage might occur independently from the recording, and it allows the viewer to follow an event as it develops in real time. The second montage possibility relates to a more conventional approach and occurs when artists edit the footage they decide to collect from webcam streams to make film-based objects.

The abundance of webcams allows for the possibility to follow the subject through the city space by engaging in casual camera-hopping. This gives the viewer, or the “online editor,” the opportunity to perform an immediate montage from these available visuals, such as a coherent narrative that shows an individual moving from A to B and/or performing a given action. In considering a future mode of news broadcasting based on webcams, Paul Virilio highlights the potential of systematically accessing these online materials and bypassing the offscreen space. In 2007 I have explored these artistic potentialities of webcams by using a similar form of montage in performative experiments. During these experiments, I connected to live streams all over the world, using the ones with the best transmission rates, and mixed them so as to provide narrative suggestions that I intuitively felt were intrinsically connected to the images, even if the geographic *raccords* (match cuts) were inexistent. When it comes to other possibilities for editing these materials, I consider them as varied as with any audiovisual material, but further multiplied by the specificities of the medium of the webcams. These include the previously mentioned multiple points of view that can be accessed and recorded when using different cameras, and visualizing the streams on multiple screens, as well as the Internet-based audiovisual data transmission issues of temporality and rhythm that can be explored aesthetically.

Baudry’s focus on the camera, screen and projector leaves out the theoretical ground concerning *découpage* and montage. In this section, after briefly identifying webcam forms of *découpage*, I have chosen to establish a parallel with emerging forms of editing from a more technical point of view, and determined by my practice-based experience with the new apparatus of webcams and therefore did not engage in extensive descriptions of apparatus theories. From this perspective, I focused specifically on a comparison between

continuity editing and other more experimental forms of montage that could apply to the webcams, as well as suggested a few of its medium-specific elements, such as the production of an online continuous single shot. There are other elements that determine traditional film production that Baudry leaves out in his analysis of the classical cinematographic apparatus, more precisely the *mise-en-scène*, acting and authorship. In the following pages, I will demonstrate the ways in which these specific aspects occur in the case of webcams.

3.1.5 The *Mise-en-Scène*, Acting and Authorship

The most interesting way to analyze the techniques used in *mise-en-scène*, is to focus on understanding the narrative function of each of its elements, as well as their motivation and relation to other film techniques.⁵⁰ The elements of *mise-en-scène* vary per film, but the main areas are: “setting, costumes and makeup, lighting, and staging.”⁵¹ If these terms are applicable to the webcams, the setting would be the artificial construct of the cities, which are increasingly fashioned in ways that make them appealing to these cameras; the costumes and makeup should conform to expected standards in order to prevent negative attention; the lighting should consist of the most appropriate choices for the adequate visibility of the objects being filmed; and, finally, the staging should be determined by careful urban planning to control the action carried out in a specific area of the city. Staging is further divided into movement and performance, which are judged according to the standards of realism. However, should anyone from the past or the future look at the imagery shown by webcams, it would be hard to decide whether or not the seemingly choreographed movement of people in the streets could be considered natural or realistic. A particular theatricality, here understood as non-realistic, seems to pervade the action in the streets when observed through a webcam.

The acting takes place in relation to other techniques that derive from stylistic choices in light of which the actor’s competence, depending on the degree of camera awareness, will be judged. Acting in front of webcams

depends on an awareness of their presence, but also on the sophistication of this knowledge. The actor should be conscious of the camera technology on the set of the streets and carefully adapt acting as a craft to it. The feature film *Holy Motors* by (Leos Carax 2012) (**Fig. 10**) constitutes a poignant portrait of the actor's profession in the age of surveillance. Playing several roles a day, previously scripted and handed over by his assistant/agent while he is driven around Paris in a limousine, Denis Lavant plays an actor surrounded by cameras. The character acts, in his words, "pour la beauté du geste," which could be translated as "for the beauty of the gesture" but also "for the sake of it." The main point this film provides in the context of this dissertation is that, in the age of the webcams, anyone can be filmed at any time in any place. This awareness is what instantly transforms people in the streets into actors. Whether or not an individual chooses to participate in this networked form of scripted documentary film production, there may always be someone who observes and expects some degree of realistic performance from them; or, that their behavior conforms to specific rules.

When it comes to webcam cinema, the viewers of the final film or the artwork may doubt the authorship of the artist using images made by others, namely the camera owners. Several questions arise about who the director of the film or the maker of the artwork may be. In the first chapter, I already looked at the different relationships an owner might have with the camera, by

Fig. 10 *Holy Motors* (Leos Carax 2012)

focusing specifically on the levels of affect generated at every moment of the production and dissemination process. The question of authorship, however, relates to the maker of the webcam film. In this case, the owner of the camera may take the role of the cinematographer, whose visual material is then appropriated by someone else. The latter, an artist who further transforms the footage and gives it an art context by positioning it against a museum backdrop, such as a film theatre or an art gallery. Issues of authorship arise whenever any sort of “found footage” is used in the making of films, but more so in the particular case of material generated by webcams, since the automatic aspect of the stream seems to leave no space for creative intentions or affects. Manu Luksch made the film *Faceless* (2007) (**Fig. 11**) using surveillance footage, of which the synopsis states that “[i]n a society under the reformed ‘Real-Time’ Calendar, without history nor future, everybody is faceless.” *Faceless* is a film marked by authorship. The project was mainly constructed in post-production, according to the processes used by cinéma vérité or a film composed of archive material, including found footage. The intentions and stylistic choices of the artist are strongly present in the final product and they infer onto the original material other layers of meaning that mark a political position toward surveillance. Besides creating works with surveillance materials, Luksch has published the “Manifesto for CCTV Filmmakers” in 2006, which she introduces as follows:

Filmmakers render aspects of nature, human activity and imagination visible. The documentary film continues to be a potent form in all its variety, from the personal video diary to “objective” fly-on-the-wall shoots, to the hybrid fact/fiction (“faction”) film. But the most prolific documentarists are no longer to be found in film schools and TV stations. In some European and American cities, every street corner is under constant surveillance using recording closed-circuit TV (CCTV) cameras. Such cameras are typically operated by local government, police, private security firms, large corporations and small businesses, and private individuals, and may be automatic or controlled (zoomed and panned) from a remote control room. Filmmakers, and in particular documentarists of all flavours, should reflect on this constant gaze. Why bring in additional cameras, when much private and public urban space is already covered from numerous angles?⁵²

Fig. 11 *Faceless* (Manu Luksch 2007)

As the manifesto instructs, making use of these cameras that are constantly spying on people is the artist's right as a citizen, but it is also a form of political action. There seems to be no point in generating any additional footage, when images are already produced at unstoppable growing rates around the clock. In the appropriation of these materials, a topic I further develop in chapter six, one identifies these images as footage to be used by an artist who may have quite different intentions than the camera owner. In my own perspective, and as filmmaker who makes frequent use of webcam footage, it is in the artist's intention that authorship resides.

The aspects involved in the *mise-en-scène* are thus intricately related to urban planning, the placement of the camera and the ways in which street routines can be influenced. It is interesting to watch how cities are represented, as mentioned before with Amsterdam as example. As in the cinematographic apparatus, the *mise-en-scène* is inherently connected to acting and authorship. The actors, people in the streets, affect the *mise-en-scène*, particularly when they are aware of the cameras (and this happens more and more), but their movement may also be limited or expanded by a *metteur-en-scène* or director. This leads us to the author, who is both the owner of the camera or the person appropriating the material with artistic intention, as these roles are entangled in the cinematic production of the webcams. The networked visibility of webcams, which is constantly produced, implies that these multiple roles are shared in the urban space: people are at once influencing the action in the streets by pointing their cameras at the public space, but they are also actors of this same action, as well as producers

of the imagery, with or without artistic intentions. This has an impact on the city that simultaneously becomes a film set for producing footage as well as a decentered location for the consumption of these materials via the multiplication and mobility of displays. Living in the city becomes a cinematic experience that has implications for both the production and the perception of film materials but also interpersonal relations.

3.2 The Cinematic Experience

Having established the comparison between the cinematographic and the cinematic apparatuses, I have conceptualized the space of the cities as a networked film set for webcams. The present section focuses on analyzing the origins of the cinematic experience to provide an understanding of the contemporary urban condition under constant surveillance.

As demonstrated throughout this chapter, most of the pre-existing codes of film production are still prevalent in the webcam as a filmmaking medium. They are, however, mixed in with the network-inherent features provided by the Internet. As webcams are considered a fairly recent development, making a film with this new medium is considered new and somewhat not yet provided with self-awareness or self-reflexiveness potential: new technology that supposedly does not carry ideological content. It could be argued that the webcams are not even intended for making films and that all they do is show the world as it is and the events as they happen. The films that are being made with this medium do, however, include several levels of narrative that speak the same “language” as the modes of production that enable as well as limit its content.

According to Francesco Casetti, “a media” (singular in the original text) is a concept that extends beyond that of the medium as it implies more than a platform: “A media is also and foremost a cultural form; it is defined by the way in which it puts us in relation with the world and with others, and therefore by the type of experience that it activates.”⁵³ Cinema thus consists of the *idea of cinema* and not of the potential new narratives and visuals its expanded multiple forms bring about. This “experience of cinema” can be relocated and recreated in different places. As Casetti points out, the filmic experience may be activated anywhere.⁵⁴ As such, a *mobile* experience

53 Francesco Casetti, “The Relocation of Cinema,” *Necus – European Journal of Media Studies*, Tangibility, Autumn (2012), 7.

54 Ibid.

of cinema may be recognized should it conserve a *form* that allows us to identify it with “a certain *idea* that we have about cinema – an idea that emerges from our habits, memories, and also from our intuition of what it means to ‘see a film’.”⁵⁵ Cinema exists beyond its technological support and, whether experienced within a film theater or on a smartphone, it still retains characteristics that remain unchanged and make it recognizable.

One of the characteristics of cinema is that it forms communities across space. As Casetti points out, this originates from the knowledge people have “of the possibility of projecting the same film in the same moment in many places.”⁵⁶ It is interesting to relate this to webcams: they provide a sense of online community since they film everywhere simultaneously and can also be watched by everyone, at the same time, also everywhere. They bring the world together, apparently. Cinema as experience is shared by webcams, both on the screen and in the streets, beyond the classical cinematographic apparatus that was dependent on the camera, the projector and the screen. This is based on the fact that cinema is affecting the viewer beyond the actual viewing of the film. In this manner, Casetti argues that the influence of what is watched inside the movie theatre stays with the spectator for a long while afterwards.⁵⁷ Cinema provides the viewer with a new vision of the world, according to which everything that used to be routine knowledge is regarded in a different light. In the same way, the streets of a city are looked at differently after having seen them as filmed by the webcams or when being aware of the presence of surveillance cameras. Casetti describes this experience as follows:

The traits that define the form of our experience of cinema are those that we have found cited in the early theories of cinema: a relationship with images in movement, mechanically reproduced and projected onto a screen; a sensory intensity, tied most closely with the visual; a constriction of distance with the world; the opening up of a fantastical universe which is just as concrete as the real one; and finally, the sense of collective participation. These are the characteristics that allow other situations to appear or to be understood as cinematographic. However, these traits do not come to light only in theory – we extract them from our habits.⁵⁸

55 Ibid., 8.

56 Ibid., 10.

57 Ibid.

58 Ibid., 18.

According to this citation, we are aware of our relationship with cinema due to past experiences, and due to the way it has influenced our imagination – something that has been taking place since the onset of cinema, roughly one hundred and thirty years ago. As this author adds, these experiences, deeply rooted in our culture, “signal an essence and function as a scheme of reference:”⁵⁹ a frame of reference that allows us to identify what we are experiencing as *cinema*. This detaches it from the material reality and allows us to relate to whatever it is we are living as cinematographic, or as I maintain in this dissertation: cinematic. In relation to this differentiation, Casetti adds that “[t]his involves a reading of the present in light of a model of cinema that we have inherited – but it also involves a re-reading of the past in light of what cinema has become in the meantime.”⁶⁰ This actually implies that when we access the medium, we look at this frame of references in retrospect and hereby reframe it – an act different from that of applying prior knowledge to new situations. To recapitulate, webcams recall an idea of the cinematic that relates to that of the cinema experience. This cinema experience results from the memory we have of what was created with the cinematographic apparatus. However, due to its medium specificity, webcams are retrospectively changing the very idea of cinema.

The networked aspect of the cinematic apparatus of webcams differentiates it from the previous modes of filmmaking. To begin with, the cameras are multiple and placed around the subject. This implies that the city has become a film plateau, a zone where everything that takes place can be considered as part of the action. This brings up several issues that confuse the roles that are usually separated in the cinematographic apparatus. The owners of the camera are enmeshed with the viewer and the actor in the street, since they may play all these roles simultaneously. For example, my installation to which I refer in the first chapter, *Split Recognition* (2010), points to this potential fusion, as I film myself by accessing someone else’s camera online to observe my own image simultaneously (**Fig. 4**). Furthermore, I am recording all of this, and appropriate its material that I transform into an authorial art piece. When it comes to the projection and the screen, the first was considered essential for the coherence of the narrative and the immersion of the spectator in Baudry’s writings, but it is no longer required for the film experience of webcams; the screen has become a viewfinder and is, like the camera, multiple and present in all levels of society. Another element that has changed in the

passage from the cinematographic to the cinematic apparatus, is that new possible online montage techniques have emerged, which can be used in order to build a narrative and/or follow an event in real time. Finally, the *mise-en-scène*, which I have analyzed in conjunction with acting and authorship, involves every aspect of city life, as long as the locations are covered by the growing presence of these cameras.

All of the above-mentioned changing aspects of the apparatus that shifts from cinematographic to cinematic contribute to producing a reality that no longer relies on a realistic perspective in order to construct narratives. It relies, instead, on a cinematic space surrounded by a network of cameras and mobile screens, engaged in the production and collection of content that will be archived as data. In such an environment, the divide between the roles of surveillance and entertainment is blurred, as well as that between urban life and film production. As an example, Terrence Malick's *Knight of Cups* (2015) is a film in which a screenwriter in distress (Christian Bale) watches live images from the city of Los Angeles and its traffic streamed from a helicopter. He watches them on his television screen when at home. When he steps into the street, he acknowledges the helicopter, and by driving his car through the city he joins those being filmed. This transition can be related to the shift Gilles Deleuze identified from the discipline to the control society, which was mentioned in the previous chapter on panopticism, in which all roles have become fluid, as have the instances or locations of inscription. As a result, people's digital profiles, their data doubles, consist of flecks of identity.⁶¹ Personal narratives have been substituted by databases that harbor these flecks of identity. In the words of Garret Stewart, who wrote *Screening Narrative Surveillance* (2015), the passage from the cinematographic to the cinematic is marked by the shift from "seeing" to "sighting," a notion that echoes with both the parallel approaches I have chosen in my study of this filmic medium originated by surveillance. If in traditional cinema the act of seeing was analog and chronologically ordered, in the case of the wide network of accessible webcams sighting is digital and algorithmically determined, comprising and fusing surveillance and cinema.

In order to further define this cinematic medium, it is necessary to leave the cinematographic apparatus with its film production elements behind, and to concentrate on what is unique to webcams and their Internet streams. In the next chapter, I will analyze a temporality that is specific only to

61 Matthew Fuller, *Media ecologies: Materialist Energies in Art and Technoculture* (Cambridge: The MIT Press, 2007).

This term has already been mentioned in the second chapter to introduce the bits of data making up people's online profiles.

this medium, more precisely the enmeshed cinematic time and network time, to better understand the narrative potential that underlie and motivate the replication of these emerging film tools.

Chapter 4

Cinematic Chronotopes: The Temporality of the Cinematic Mode of Existence of the Webcams

After establishing a distinction between the types of surveillance cameras in existence in chapter one, I identified the continuities between these cameras and the original Panopticon in chapter two and examined the webcam's technical components that define it as a cinematic medium in chapter three. To further examine the specific aspects of filmmaking with webcams, I now turn to the analysis of the temporality of this medium by building upon the knowledge my experiments as an artist have originated. This combines information I have gathered from observation but also acquired in dialogue with others when academic sources did not provide me with answers. In order to situate webcams within the context of preceding media, I will compare their simultaneous audiovisual capture and transmission with film and television production of content. To begin with the latter, television represents one particular medium that has altered notions of production and perception of cinematographic content before the age of webcams. Besides recycling ideas about the format, duration, acting style, and editing rhythm inherited from cinema, television marks the advent of a new form of viewing that was named "flow" by Raymond Williams in *Television: Technology and Cultural Form* (2003). This term encompasses the way in which programs, advertisements and intermissions are presented and viewed. As television programming is intertextual, so is its flow of twenty-four seven, continuous sequences.

[M]ost of us say, in describing the experience, "watching television," rather than that we have watched "the news" or "a play" or "the football" *on television*... Then again, it is a widely if often ruefully admitted experience that many of us find television very difficult to switch off; that again and again, even when we have switched on for a particular "programme," we find ourselves watching the one after it and the one after that. The way in which flow is now organised, without definite intervals, in any case encourages this.¹

This flow is external to the viewer, since it goes on no matter whether the desire to watch or availability to watch are present. So is the stream of the webcams, an uninterrupted flow of images straight from the street portraying everything inherent in public life, and apparently with no distinction among subjects. The fact that the cameras film independently of an actual human

presence in front of them also implies that the images will be transmitted regardless of who may be watching them (or recording them). This flow as a mode of watching, in which people can decide to look at what is being streamed at any point of the day, marks a new temporality, a subject which I will be analyzing later on in this chapter. However, it also creates the presence of a constant cinematic environment that affects the subjectification of individuals living in mostly urban areas. I will now attempt to analyze the notion of the cinematic proper and its present forms, while demonstrating how the cinematic affects and is affected by the constant flow of the audiovisual stimuli that is being produced.

The Cinematic

4.1

According to Lev Manovich, the late 1980s constitutes the period when new cinematic forms, those experimenting with existing narrative formats, overtook television and computer screens. These experimental forms include the non-linear narratives of the video clip and computer games, with MTV exemplifying the former and ATARI console games the latter. Such forms of audiovisual production were not conceived to achieve a realistic approach to film-based storytelling. Rather, their makers collected and combined images from pop culture and other sources of image and sound to create a different logic of montage. This editing mode is determined by the creation of a new aesthetics, rather than bound by the constraints of conventional continuity.² These new cinematic objects have affected the ontology of classical film by exposing its potential as code. Manovich claims that with the rise of computation, culture, including film, becomes *code*. According to his argument, cinema is “used to communicate all types of data and experiences, and its language is encoded in the interfaces and defaults of software programs and in the hardware itself.”³ New media makes use of pre-existing cultural paradigms, cultural forms that have been in place and are generally used in social exchange or in mass communication. However, while new cinematic forms may emphasize these, they will also influence the forms of usage of such codes while changing these same codes in the process. An interesting example I observed on webcams as part of my research was a Japanese tourist performing in front of a live streaming

2 Lev Manovich, *The Language of New Media*. Cambridge (Massachusetts: MIT Press, 2001).

3 Ibid., 333.

camera from a street in London. Instead of ignoring it or adopting a passive attitude towards a medium that is supposed to inconspicuously watch (over) him, he uses it to communicate with someone who is watching the screen in another geographical location. While talking on the phone he waves and smiles at the camera and thereby transforms the unilateral medium of video surveillance into a two-way channel for communication. With the increase of audio recording, people with a similar degree of camera awareness may replace applications like Facetime and Skype with these cameras. This would consist of a definite intervention on the level of the language or code that rule surveillance.

As Manovich notes, in making use of older languages and codes, the new cinematic object – or new media – “simultaneously opens them up for redefinition.”⁴ This indicates that, for instance, by using the frame associated with classical cinema and television, the computer screen can display movies but also images from the streets as if they were movies. One consequence of this is that a person who is aware of being filmed identifies him or her self with an actor by following an interpretation of film-based code. However, this person may also decide to start self-directing, thereby identifying both with the actor and the director. This new activity arises from the knowledge of the presence of watchful eyes, providing conditions for the emergence of creative forms of self-broadcast and hybrid documentarians such as lifecasters. The emergence of new possibilities for filmmaking and alterations in behavior caused by the new media’s influence on subjectification implies a tweaking of the code that provokes changes in the expected outcome of the programmed action.

New media appropriates cultural forms and molds them according to whatever it may convey. As such, it takes the codes and recodifies them to fit new functions. Manovich argues that “new media transforms all culture and cultural theory into ‘open source’.”⁵ Open source here is understood as a matter of code that can be made use of, changed, and added to, according to will. This premise adds to the conversion of the cinematic into a concept that widely extends beyond the limits of the movie theatre. As Pepita Hesselberth observes, according to Manovich the cinematic has become a cultural interface pervaded by all sorts of media, including computers, smartphones, animated billboards, etc. Hesselberth also points out that Vivian Sobchack argues that the cinematic has become “a body that is constitutive of the life-world we

inhabit and that interferes with our lived bodies in complex and dynamic ways.”⁶ Combining these two conceptions, the cinematic may be regarded as an environment that is common to all and where life unfolds through daily interaction with new media. Taking the work of these authors as a point of departure, Hesselberth develops her own definition of the cinematic:

[T]he cinematic is a category of experience, a performative that comes into being in the encounter between the human body and its environment, whether the latter be digital or analog, projected or displayed on small or large screens, and experienced with or without the apparent intervention of the participating viewer.⁷

It is this definition that I have chosen to apply to the emergence of webcams as cinematic media. Central to the analysis of the processes involved in coding and recoding cinematic modes, it is relevant to focus on how audiovisual technologies create environments affecting subjectivities and altering the individual's experience of self-awareness in the work of Hesselberth. According to Sobchack, it is important to identify micro perceptual engagement with cinematic and electronic representational forms. This helps one to analyze the way in which the “micro perceptual experience” of production modes and techniques affects and molds “our temporal and spatial sense of ourselves and our cultural contexts of meaning.”⁸ As Sobchack argues, new media has not only been accepted as offering new formations of codified culture, but has also become part of the subjective “enabling a new perceptual mode of existential and embodied ‘presence’.”⁹ She further points to the transformation that has occurred on the level of subjectification of the individual by contact with new media. According to her formulation, both the individual and the self-perception of the individual have changed with the emergence of these new cinematic objects and environments.¹⁰ This claim echoes with Latour's writings both on modes of existence and the relation between the creation of a tool and the ways in which it changes the world that creates it.

Emerging cinematic techniques have transformed our contact with others by mediation and, vicariously, transformed the image we have of ourselves. Such techniques have had and will continue to have a deep impact

6 Pepita Hesselberth, *Cinematic Chronotopes: Here, Now, Me*. (London, New York, New Delhi and Sydney: Bloomsbury, 2014), 4.

7 Ibid., 5.

8 Vivian Sobchack, “The Scene of the Screen: Envisioning Cinematic and Electronic ‘Presence’,” *Technology and Culture, the Film Reader*, ed. Andrew Utterson, (Abingdon, New York: Routledge, 2005), 86.

9 Ibid., 86-87.

10 Ibid.

on the way we “currently see, sense, and make sense of ourselves as quite other than we were before them.”¹¹ The cinematic has transformative properties that are conveyed by the way in which such encounters take place. As cinematic practices rely on creating temporalities that envelop the individual in the underlying narrative, regardless of whether or not this narrative is linear, it is important, as Hesselberth points out, to analyze “the potential of the cinematic to intensify our experience of time’s thickening,”¹² that is, the property of the cinematic that expresses itself as an intensified form of temporality. In her analysis of Sobchack’s work on this matter, she points out that:

Hinting at the temporal simultaneity of the “objective” time of the film’s unfolding (here) and the “subjective” temporality of captured and experienced world (there), Sobchack insists that the cinematic is characterized by a thickening of time and, consequently, an expansion of space.¹³

By establishing a comparison between the double experience of cinematic temporality that occurs during film viewing, Hesselberth draws attention to Sobchack’s definition of the encounter with the cinematic, which relies on an intensification of time that *transports* the spectator to another space. This subjective expansion of space *stretches* the spectator’s experience of time and gives it substance. A similar experience of a double temporal embodiment takes place outside of the film theater when one is watching a webcam. The time of the stream is thickened by the temporality experienced by the observer. This results in the encounter with a fragment of the twenty-four seven shot belonging to the time zone of the transmitted imagery. One can also experience this encounter when walking in a heavily surveilled area of the city: the previously mentioned Japanese tourist, who is aware of the presence of cameras, experiences the expansion of space from knowing he is being watched at a differently “thickened” time. The embodiment of a thickened temporality may be felt both when being filmed and when observing one’s own imagery. In order to further explore how the specific temporality of the webcams is constructed, it is relevant to now analyze the complex combination of time frames these networked media involve.

11 Ibid., 86-87.

12 Hesselberth, *Cinematic Chronotopes*, 5.

13 Ibid., 7.

From Real Time to Realtime

4.2

Central to the study of the cinematic apparatus of webcams is the analysis of current notions of real time. This temporality is routinely referred to as the form of time in which the actions unfold in front of the webcams and are streamed over the Internet, simultaneously provoking the encounter with the viewer. This chapter proposes that real time is a constructed notion and should be categorized by taking its technological characteristics into account. To begin with, real time is measured in new units of time called the nanosecond and the picosecond, which are, respectively, a billionth and a trillionth of a second. These new units were created in order to include the increased speed of computer information processing in the temporal conception developed during the Enlightenment. Due to technological acceleration, real time is more adequately defined as chronoscopic rather than chronologic, matching Network or Internet time.¹⁴ It is relevant to take into account the fact that the webcam's main distinction from the classical cinematographic apparatus discussed in the previous chapter is that its content is networked and streamed live. Thus, when discussing webcam imagery, it is important to emphasize the fact that the speed of data transmission does not necessarily influence the speed with which content is perceived: the content is still believed to occur in clock time. According to such a premise, I propose the possibility that the data transmission and the perception take place in different yet concurring "timescapes" or internal experiences of temporality: the first in network time, the second in clock time.¹⁵

Real time, both chronologically and chronoscopically does not correspond to the simultaneous occurrence and perception of the action being filmed and streamed. From what I have observed, most streams are not being captured and perceived simultaneously. I have noticed that most webcams were taken offline just before the 2008 Olympics. According to a curator and friend from Shanghai living and working in The Netherlands, these cameras have their streams delayed to allow for a previous scrutiny of the imagery by the authorities.¹⁶ Even though I could not prove this hypothesis, I find

14 Robert Hassan and Ronald E. Purser, *24/7: Time and Temporality in the Network Society* (Palo Alto: Stanford University Press, 2007).

15 Barbara Adam, *Timescapes of Modernity: The Environment & Invisible Hazards* (New York: Routledge, 1998).

16 In 2009 I was invited to work on a site-specific project for the exhibition "Umbrella" at the Organhaus Art Space in Chongqing. When trying to access webcams I had stored in my archive for some years, I was struck by the fact that none of them was online. My video installation consisted of a live mix of images from a surveillance camera I had placed in the exhibition space to film visitors, together with pre-recorded images from online webcams. For this project I had to find a whole new set of webcams that mostly showed time-lapsed recordings.

it plausible given what I have observed during the years within the duration of the present research project. According to this line of thought, a delayed transmission consists of a constructed and controlled real time that may be considered a “timescape,” a temporal dimension that is felt internally and experienced subjectively, while running parallel to several other temporalities determined by the network and affecting the way its users connect and perceive content. According to Robert Hassan and Ronald E. Purser, “[i]n many respects the network society is a vast, technologically sustained global timescape that we create and share; and through it we transform the world and ourselves.”¹⁷ The shared time of the network is a new form of global temporality that has replaced chronological linearity with chronoscopic eventfulness. This has as a consequence the creation of an emergent form of eternal present due to the demands of global markets. Since the temporal unit of the day has decreased in importance and the networked society constantly lives in the present, the global trade united by the Internet is allowed to function twenty-four seven. As Jonathan Crary points out in *24/7: Late Capitalism and the Ends of Sleep* this implies a temporality causing the market to trade around the clock and people to constantly be available as workers, including on weekends and holidays.¹⁸ Echoing this trend, webcams film constantly for days, weeks, months, and years on end.

When visiting the Earthcam website, one finds a wide variety of cameras placed worldwide that can be watched throughout all time zones. In watching these real time streams over the course of more than fourteen years, I realized that one does not see the whole world and learn about it by navigating through this Internet-based resource of imagery. Instead, the viewer or user is entering a self-generating archive of audiovisual stimuli that provides a constructed view of a controlled reality. By looking at the cameras, I have been able to observe the difference in the financial investment in technology in relation to where they are placed. Times Square, for example, showcases many cameras in high-definition 3D quality with stereo sound that reveal to the viewer that he or she is watching a tightly controlled area. Even if these cameras are intended for entertainment, it is clear that many others present at the location are used for surveillance, even when not indicated as such. Moreover, it is possible to conclude that the area is being prepared for the streams and that people can commute safely to work while others shop.¹⁹ The cameras placed in Times Square are more expensive than most of those

17 Hassan and Purser, *24/7*, 13.

18 Jonathan Crary, *24/7: Late Capitalism and the Ends of Sleep* (London: Verso, 2014).

19 Hella Koskela, “‘Cam Era’: the Contemporary Urban Panopticon,” in *Surveillance & Society* 1, no. 3 (2003), <http://library.queensu.ca/ojs/index.php/surveillance-and-society/article/view/3342/3304>.2003.

available on the market. Cameras placed in poorer regions of the world generally have lower refresh rates and therefore present a fragmented vision of a real time event. The result is that one can watch the unbroken movement of live action in New York, but only a succession of stills in regions that invest less in this form of online city portrait.

Real time brings to the foreground the party that is capable of achieving the fastest transmission rate, a resource that is quickly becoming an exponent of power and a form of currency. The imagery ostensibly captured in real time consists of a construction born out of the technological device itself and its fidelity. Thus, the higher the device's level of technology (including the image resolution and sound quality, which implies a bigger financial investment), the less transparent the mediation of reality becomes, since more advanced means reveal a tighter control over the visual scope of a particular area. The resulting imagery might be considered "realistic," but this is a notion pertaining to a classically cinematographic form of realism that is constructed by technology and determined by film codes. The documentation that is created by the medium results from the reasoning that determined the conditions of camera placement and ownership in the first place. Most reasons invoked for the placement of video surveillance devices in cities officially involve risk management and preemptive action. In concluding this line of argumentation, the audiovisual output is, therefore, a realistic representation, but does not correspond to a simultaneous and transparent account of reality. It consists of the portrayal of an uneventful present that pretends to erase a potentially dangerous future. As David Lyon says, "[s]urveillance now not only keeps track of *past* movements, it tries to anticipate *future* flows."²⁰ As demonstrated in chapter two, by using Michael Palm's film if an individual stands out from the crowd, he may be removed from the frame under the premise that his or her actions could compromise the safety of others in his proximity (**Fig. 7**). These features further highlight webcams as producers of visions and fictional constructions and not as transparent mediators; qualities that mark the advent of these cameras as cinematic medium that affect the event they report.

Real time is a notion that extends beyond the idea of the simultaneity of capture and viewing. Since tighter control implies bigger investment in technology, the better achieved the "illusion" of simultaneity the more often it will be perceived as "real" simultaneity. The implications of this are that

20 David Lyon, *Surveillance Society: Monitoring Everyday Life* (Buckingham-Philadelphia: Open University Press, 2011).

discrepancies between what is happening in front of the cameras and what is streamed by the cameras will be overlooked. In relation to the subject of online reports on real events, Paul Virilio writes in *The Information Bomb* (2005) that networked surveillance will multiply to the point of covering the whole of the visible world.²¹ According to him, once we are given public access to the world's entire visible surface on the cameras' frames, everyone can observe the live stream of imagery at the time a given event takes place in order to simultaneously follow its course. In Virilio's near-future vision, there will be enough video surveillance equipment in place to make it possible for one to follow an event's development from beginning to end as it actually happens. According to this idea, television broadcasts will become obsolete, as people will potentially be able to access the cameras as soon as they know something noteworthy is occurring. In considering the webcams as cinematic media, I oppose the view implied that absolute transparency would accompany this form of broadcast.

By defending "tele-surveillance," Virilio argues that in achieving absolute pervasiveness, the cameras will overcome the unhandy "blind spots," or offscreen zones, those areas that are not covered by the frame. It is worth at this point to acknowledge Manovich's claim that new media not only change codes when making use of them but also add to these codes.²² What this means in the context of tele-surveillance is that when the offscreen is covered by the overwhelming multiplicity of devices, there will be events that will not be captured by the webcams. These blind spots could potentially acquire passive and active modes of obscurity. In the first case, the blind spots are no longer reduced to the space between the frames, but by what/who is missing from the location, i.e. the undesirables of real time. As seen in chapter two this is formed by people who may be removed from certain locations because they are deemed unsuitable for the purpose the camera offers. One could argue that this is a passive mode of obliteration from the frame. In relation to the second there is evidence that blind spots persist in active roles taken by individuals in areas of heightened visibility. As an example, there are people who remain voluntarily invisible to the cameras by dressing and acting differently in order to blend with the crowd. In more extreme cases, a growing trend may be observed in fashion that focuses on design for counterfeiting surveillance. This includes anti-drone clothing that masks body heat from drone surveillance, and combinations of haircut and makeup to prevent

21 Paul Virilio, *The Information Bomb*, trans. Chris Turner (New York-London: Verso, 2005). This mode of "tele-surveillance" has been briefly mentioned in the third chapter in relation to online possibilities of multi-screen editing.

22 Manovich, *The Language of New Media*.

reliable face-recognition by webcams and CCTV²³ (**Figs. 12, 13**).

To reiterate, the notion of real time imbues webcam imagery with a documental value that is based on the alleged transparent mediation of content. As I have already pointed out, the transmission speed and the frame rate of the streamed imagery are conditioned by the technology of the cameras and by who owns them. Besides, the awareness of the presence of webcams have transformed people into actors with knowledge to influence the veracity of live streams and alter the meaning of what is seen/unseen.

Fig. 12 Anti-drone hoodie from *Stealth Wear* by Adam Harvey.

Fig. 13 Two images of the project *Camouflage* from *Face Detection in CV Dazzle* by Adam Harvey.

23 For more on the subject of surveillance and fashion, see *AH Projects*, <http://ahprojects.com/projects/>.

For these reasons, I propose that we consider real time as a constructed temporality providing an illusion of simultaneity between action capture and action perception, but also affecting the “live action” which occurs in urban streets. I argue that real time is cinematic as it influences all that webcams’ capture within the frame, including the actions of individuals and urban planning. All the cameras mentioned, including online surveillance cameras and personal webcams, provide a predetermined view of the world that is in accordance with their own technology and the way in which this technology is owned. This provides medium-controlled visions of a world where all places are organized into homogenizing categories that cross geographical borders (shopping streets, highways and malls), where views are taken from above, and where the individuals perceive the presence of their double, their *other* self as consumer, worker, and citizen. But to understand how these visions of urban space are produced and how people perceive them as portraits of contemporary reality, it is important to analyze the nature of this specific temporality.

4.3 Webcam Temporality and Realtime: A Synthesis of Cinematic Time and Network Time

Beyond the affects webcam footage is already imbued with, the specific temporality of this emerging form of filmmaking is central to the notion of the narrative construction and its documental value. This temporality, the aforementioned real time, shares continuities with the experience of time both in cinema and on the Internet. According to Mary Ann Doane, real time is experienced in traditional cinema as part of what she calls *cinematic time*.²⁴ However, the temporality that emerges in the passage from the cinematographic to the cinematic apparatus of webcams is a combination of this existing temporality, cinematic time, combined with that of the Internet, which is network time. By initially defining these two temporalities separately,

24 Mary Ann Doane, *The Emergence of Cinematic Time* (Cambridge-London: Harvard University Press, 2002).

She refers to cinematic time as the time of the classical cinematographic apparatus. Cinematic is here thus of a different use to this dissertation and refers only to the specific time of cinema (mainly in the case of the single shot in early cinema).

I will demonstrate how their synthesis might give rise to *webcam time*.

Cinematic Time

4.3.1

Regarding the specific temporality of the webcams, the construct of the real time feed may at times approximate that of the single shot of cinematic time as theorized by Doane:

[i]n the technical language of filmmaking, the term real time refers to the duration of a single shot (assuming the shot is neither fast nor slow motion). If the physical film is not cut and projection speed equals its shooting speed (usually somewhere between sixteen and twenty-four frames per second), the movement on the screen will unfold in a time that is isomorphic with pro-filmic time, or what is generally thought to be our everyday life experience of time – hence the term real. The time of the apparatus matches, is married to, the time of the action or the scene. This ‘real time’ is marked by an apparent plenitude. No lack or loss of time is visible to the eye or accessible to the spectator.²⁵

Doane is here referring to the notion of cinematic real time, which is the temporality originated during the single shot: a length of time where camera time equals screen time. According to Doane, the seamless temporality of real time can only occur when the break between the film frames is ignored. This break, which in analog cinema is filled with empty darkness, might be equated with the failures in update rate typical of Internet streams. These intervals may at times be experienced not as dark instants – the space in between the frames – but may instead give place to digital noise, augmented disordered pixels, blurred colors, and erratic, rhythmic lines crossing the screen. Still, the observer of a webcam, as when watching a traditional film and ignoring the frame gaps, will automatically discard the intervals introduced by the noise and acknowledge the movement of bodies crossing the frame. This perceived movement allows the viewer to identify the people being filmed with their representation on the screen, thus creating the reality effect of cinema.²⁶ In other words, by trusting the realness of the real time of the capture, which in the case of webcams is considered to be the same moment of transmission and

²⁵ Ibid., 172.

²⁶ Ibid.

observation, one assumes the veracity of the imagery.

When writing about the real time of the single shot, Doane is mainly referring to the first steps taken by the analog cinematographic apparatus in a primitive form, which was still learning how to build its own language based upon a recently discovered temporality. However, a parallel may be drawn between the cinematic time she refers to and the temporality of a webcam, which, it can be argued, is also just learning about itself as an emerging medium. For instance, Doane emphasizes the presence of the “any-instant-whatever” in the real time of the single shot. This notion may be crucial for the definition of webcam temporality. In fact, the uninterrupted stream of these cameras corresponds with a single shot during which, similarly to classical film cameras, it may capture all kinds of unexpected events without a specific focus.²⁷ An example of such an event is when clouds cover the sky during a single shot, with the scene becoming part of the film. In this way the film documents the actual presence of the contingent: an unexpected and unorchestrated darkening of the sky. As a parallel, webcams are constantly observing or filming reality and covering any occurring event, thereby providing their streams with a strong documental stance. Their temporality is filled with the advent of the contingent “any-instant-whatever,” which consists of real time materializing into the documentation of events. However, the fact that this temporality also includes Internet transmission implies another layer affecting the construction of time, which underlies the value given to this form of documentation. The Internet gave rise to a form of time that is specific to the network and that I will now briefly examine in order to relate it to the real time of cinema and the temporality of webcams.

4.3.2 Network Time and Realtime

Paraphrasing Hassan and Purser, network time or the time of the Internet is an evolved version of the postmodern time-space compression.²⁸ This highly accelerated form of temporality is the result of an evolution from chronologic to chronoscopic time, comprising increasingly smaller measuring units.

Humans ... are creating an accelerated temporal ecology (an

experience of time) that is entirely unprecedented. It is ... based on ... clock time that has been massively compressed within the ecology of the network and has exploded into a million different time fractions, as many time fractions as there are users with ICT applications.²⁹

The network time argued for above is based on an accelerated form of clock time, which implies that the real time of the Internet also continues to be chronological.

The time-space compression occurring in webcam streams demands another conceptualization of real time existing beyond forms of traditional temporality. I propose to use the term “realtime” instead, in order not to separate the word “real” from the word “time.” Due to the interdependence of these concepts, the term seems better suited to the form of temporality introduced by webcams. Realtime corresponds to the temporality of the webcam’s single shot but includes, for instance, the possibility of the shot getting censored by authorities before being streamed in real time or the ways in which the transmission may fail and create distorted reports of real live action.

While actively experimenting with the webcam as cinematic apparatus through a self-reflexive practice, I have focused on studying visual effects affecting the streams when intruded upon by the flaws of webcam-specific temporality. The sculptural video installation *Realtime Ellipsis* (2012) analyzes how the cinematic ellipsis may arise within this context (see **Fig. 14**). As an experiment, the artwork incorporated the noise produced by top-of-the-line 3D high definition webcams, which had become incapable of delivering smooth streams. The resulting images of Times Square in New York City metamorphosed into an extravagant composition of throbbing red and blue lines where human traces could be faintly perceived as fluid shadows crawling across the screen. At this point scarce information was available within the space of the frame that could be identified as documental or evidential. The formal ellipsis emerged when the pixels’ visual logics could no longer be assembled as meaningful, legible information, and its value as document had been undermined. However, even if their image could not be properly discerned due to technical disturbances, people’s digital imprint was definitely present, their traces undoubtedly forever inscribed as metadata, just as a conventional narrative continues to develop within the temporality of the

ellipsis in classical cinema. For the production of *Realtime Ellipsis*, only short patches of footage resulting from discontinued realtime, i.e. the ellipses, were collected and edited, resulting in a montage of precarious images exposing the fabric of the medium and its temporality.

Fig. 14 *Realtime Ellipsis* (Paula Albuquerque 2012)

In conclusion, realtime synthesizes the temporalities of cinematic time (real time of the single shot) and network time (Internet transmission). Since webcams are designed to run continuously, constantly capturing images in realtime, they seem to film aimlessly and through long stretches of time during which *nothing* happens. However, this also means that they can film anything occurring at any moment, as the contingent is always present in potential. This instance exists in accordance with Doane's real time of the single shot in which the running film of the camera has the capability of filming the any-instant-whatever. The cinematic temporality of the *uncut* is augmented and conditioned by network time with all its transmission failures

and possible external influence, including potential stream censorship. The constructed cinematic and networked temporality of the webcams affects both the production and reception of content, while creating signifying narrative units that affect the space both within the frame and also outside it. I now intend to demonstrate the ways in which the cinematic medium of the webcams produces narrative units based on its temporality and the portion of visual reality it frames.

Realtime-generated Cinematic Chronotopes

4.4

Because webcams film a space and the movement of bodies within a single shot, generating a specific compression of space and time, realtime has surpassed chronologic and chronoscopic forms of temporality. My primary claim here is that the specific temporality of the webcams – realtime – has become chronotopic.³⁰ Mikhail Bakhtin first conceptualized the signifying unit of the chronotope in literature, applying it specifically to the literary novel, which he referred to as a unit of “time-space.” As he explains:

In the literary artistic chronotope, spatial and temporal indicators are fused into one carefully thought-out, concrete whole. Time, as it were, thickens, takes on flesh, becomes artistically visible; likewise, space becomes charged and responsive to the movements of time, plot and history... The image of man is always chronotopic.³¹

The thickening of time proposed by Bakhtin in the chronotope comes in line with Sobchack’s material approach to the temporality of the cinematic and its embodiment. Together with space, the chronotope forms a single narrative unit, a concept that can be used in literature but also in cinema and extends to the webcam as well.

Robert Stam is the first film theorist to apply the notion of the chronotope in film theory to a representation of it as being eminently

30 Hesselberth, *Cinematic Chronotopes*.

For argumentation about the use of the chronotope as unit of narrative signification, this dissertation follows the reasoning developed by Pepita Hesselberth.

31 Mikhail Bakhtin, “Forms of Time and of the Chronotope in the Novel: Notes towards a Historical Poetics,” in *Narrative Dynamics: Essays on Time, Closure and Frame*, ed. Brian Richardson (Ohio State University Press, 2002), 15.

cinematic in *Subversive Pleasures: Bakhtin, Cultural Criticism and Film*.³² More recently, Hesselberth has expanded the concept of cinematic chronotopes as applicable to all forms of cinema, including those of mobile screens, video installations, and, I propose, webcams. In *Cinematic Chronotopes: Here, Now, Me*, Hesselberth focuses on the aspects that influence and form the embodied *self* during the encounter with the cinematic: the experience in a multimedia charged location.³³ Initially situating her concept in film studies, she points out the paradigm shift that has occurred in the analysis of spectatorship; namely, a shift in focus from the eye to the whole body. As such, when one studies the perceptual phenomena of cinema watching and feeling, it becomes apparent that voyeurism has given place to embodiment. To back up this claim, Hesselberth draws our attention to the fact that scholars like Gilles Deleuze, Sobchack, Laura Marks and Giuliana Bruno have already written about cinema in terms of its affect, embodiment and haptic qualities. For Hesselberth, the experience of cinema has changed as screens have multiplied and as the immobility of the spectator in the cinema gave way to the viewer experiencing several screens on the move. As outdated notions based on reflexivity and the primacy of the eye no longer suffice to define the encounter with the cinematic, Hesselberth proposes to classify it as an affective encounter. In her words:

The act of looking ... is part of the object, or that which is looked at, so that any movement in or of the observer necessarily triggers movement in or of the world observed, and vice-versa, here and now. This principle of co-variance radically differs from the principle of co-dependence fundamental to Renaissance perspective and the ocular-centric models of cinema it inspired. It is different because it does not place the viewer at a distance from the world observed, and by the same token does not consider the object as given or fixed.³⁴

In the city, whatever the eyes and ears perceive is constantly changing since the body of the viewer is in motion while embodying the experience in passing. Embodiment is thus central to the possibility of perceiving image and sound content. The movement in space contributes to the perception of time, thereby forming a chronotopical instance of perception and existence of the self.³⁵ To understand Hesselberth's theorization, it is important to note

32 Robert Stam, *Subversive Pleasures: Bakhtin, Cultural Criticism and Film* (Baltimore: John Hopkins University Press, 1992).

33 Hesselberth, *Cinematic Chronotopes*.

34 *Ibid.*, 13.

35 *Ibid.*

that a cinematic environment arises whenever we come across “technologically mediated sounds and images in which the thickening of time becomes tangible to our bodies and affects our sense of self-presence and agency.”³⁶ The thickening of time may occur when people are confronted with the footage generated by webcams that show data doubles in the making. For example, when observing the movement of bodies in the streets, one becomes aware of one’s potential position both within the frame and offscreen. The audiovisual stimulus is embodied by, among other factors, an awareness of our bodies’ scale in relation to those on screen. In addition, by looking at the streams, the observer realizes or confirms that by simply walking in the urban space he or she might become the one who is observed. In the words of Hesselberth, “the cinematic is a category of experience, a performative that comes into being in the encounter between the human body and its environment.”³⁷ In the cinematic city, this encounter takes place in a space and a time that is predetermined and designed for the medium of the webcam, i.e. the chronotope.

Hesselberth also considers the museum in relation to the cinematic space, observing that the museum’s manner of displaying multimedia objects conditions our encounter with them. She further alerts us to the need to know *the protocol* when entering a cinematic space, for this cannot be navigated without guidelines.³⁸ However, it is possible to infer that these forms of navigability have become part of the social contract and that they are taken into account in urban planning. As such, these protocols have moved beyond the walls of the museum since cities have become themselves complex installations of multimedia objects. Times Square is a fitting example, with all its animated billboards, the five lanes of yellow cabs, the tourists taking selfies with Minnie and Elmo, and the rushing New Yorkers with eyes glued to their iPhones and Blackberries while pushing through the crowd. The image displayed by webcams provides the chronotope that includes the protocol or map of navigability. This is time-space determined, and its modes of operation can only be known *here* and *now*. It can be said that the space of the museum offers the experience to the visitors, but the space of the street transforms it into an ordinary experience for the citizens as it has become part of their social practices and routines: it has become embodied. Moreover, the chronotope’s protocol to navigate and behave in the contemporary city implies constant change: no one can ever apprehend it entirely, as it is constantly morphing,

36 Ibid., 112.

37 Ibid., 5.

38 Ibid.

like society itself. As in accordance with Deleuze's "Postscript on the Societies of Control,"³⁹ this ever-changing social environment surcharged with audiovisual material IS the protocol.

Esther Peeren developed the concept of the chronotope as social practice. As she explains in her article "Through the Lens of the Chronotope: Suggestions for a Spatio-Temporal Perspective on Diaspora" (2006), in Bakhtin's chronotope "time and space are intimately connected: time becomes a dimension of space – its fourth dimension – and space a dimension of time."⁴⁰ According to this reasoning, time becomes spatial since it is the change in space that testifies to the passage of time. Space achieves temporality through the movement of bodies and non-human objects. Peeren further asserts that since "all actions, thoughts, and experiences take place in time-space and are first and foremost apprehended in spatio-temporal terms, Bakhtin elevates the chronotope to the central ordering principle of all human life."⁴¹ This consequently establishes the formation of chronotopic meaning due to the inscription of all signs into time and space. Peeren proposes it as a cultural concept, thereby extending its narrative potential to social life and subjectification.

This application of the chronotope to social and cultural context is useful for the present research since it lays bare the paradigmatic notions underlying so-called *common sense*, as well as *official* narratives. Moreover, it takes into consideration the fact that "we all exist within time-space constructions that make us who we are and that govern our lives."⁴² Chronotopical social practices are ruled by habit and customs that have either been passed down through generations, or have been created by marketing campaigns and the governments who support them. Such socializing time-space narrative units are functional as long as they affect the behavior of people (subjects) and their environment (culture) in a predetermined way. As Peeren notes: "[w]hile time and space are always intrinsically connected, how they are connected and how this connection governs meaning varies, making the chronotope a social, cultural, and ideological construction."⁴³ As such, when it comes to webcams, there is not a single unit organizing similar instances of time-space, but a whole array of potential chronotopes networked and compilable or combined according to algorithmic forms of

39 Gilles Deleuze, "Postscript on the Societies of Control," *October* 59, Winter (1992), <http://www.jstor.org/stable/778828>.

40 Esther Peeren, "Through the Lens of the Chronotope: Suggestions for a Spatio-Temporal Perspective on Diaspora," *Thamyris/Intersecting: Place, Sex and Race*, no. 13 (2006), 68.

41 *Ibid.*, 68.

42 *Ibid.*, 68.

43 *Ibid.*, 68-69.

logic. Consequently, the way they may be perceived or embodied will also vary according to a multitude of potential articulations. Chronotopes may be perceived as realistically portraying social or cultural phenomena due to a more or less coherent social narrative. For example, reality is streamed by webcams according to what is expected in a specific spatio-temporal frame. A shopping street, as the tag indicates, corresponds to the chronotopical notion of the-contemporary-space-of-an-urban-commercial-area-streamed-in-realtime. Those included in it are subjects made by the space-time of the image, the people who shop. This evidentiates the fact that chronotopes come to stand not as individual creations but as an intersubjective or cultural form of narrative that constitutes collective memory.⁴⁴ As Peeren summarizes: “On the whole, both in art and in life, Bakhtin’s chronotope emerges as a socio-cultural practice of time-space construction, constituted and maintained through intersubjective interaction and cultural memory.”⁴⁵

The chronotope may serve as an ideological basis in order to justify and incentivize behavior. As in the example above, the shopping street is supposedly a public space, however, the networked nature of surveillance and the awareness that anyone across the world might be watching implies that, should particular elements exist that do not correspond to the narrative function of the chronotope, this signifying unit may be adjusted. Beyond the issues of surveillance, and as hinted at before, if a city wishes to promote safe shopping in order to attract tourists, the live-streaming chronotope of the perfect shopping street will probably not include beggars or groups of people who are not active brand consumers. This chronotope will probably be adjusted by agents of the law who will subtly remove unwanted elements from the time and space of the intended narrative, allowing its meaning to be restored to its inherent perfection and its intended effectiveness. This logic, organizing a vision of the world comprised by chronotopes, may be applied to the organization and categorization of a multitude of realities.⁴⁶ To get in touch with them, one may research a website offering many different points of access to various expressions of the same chronotope: those various non-places of the *shopping street* that are globally similar and practically undifferentiable. In this case, its meaning is perfected by the absence of the undesirable, the unexpected, enabling individuals to experience the embodiment of standardized chronotopes that are frequently encountered. This allows for a socialization that does not question the origin or the veracity of the signifying

44 Ibid., 69.

45 Ibid., 69.

46 Ibid.

unit.

In sum, this chapter has focused on describing the way in which the specific temporality of webcams is constructed. By identifying the continuities with the pre-existing temporalities of cinematic time and network time, I have demonstrated that the most adequate concept for defining the way in which time is synthesized in the cinematic apparatus of webcams is realtime. This is a combination of the two previously mentioned temporalities, which, due to its characteristics and constraints, produces a conception of time that is beyond chronology (real time in cinema) and chronoscopy (real time on the Internet) but instead the resulting chronotopy. The narrative unit of the chronotope, which consists of both time and space combined, is the measure that best matches the structure of realtime; it is a temporality creating a cinematic time-space that is socialized and accepted as the sights and sites where live events take place. Due to urban planning, marketing strategies, and preemptive action, to name a few cases, these chronotopes can be adjusted according to the narrative envisioned to determine the time and space of the city from which the streams originate. As I have previously mentioned, these doublings of the public space imply a future ideal of the present translated into, for example, safe and clean streets in perfectly kept cities.

Beyond the effect these future visions have on changing the face of the city, at present webcam streams may be recorded. This implies there may be a posterior use of the current constant generation of audiovisual content. It is hard to know at present which material is actually making it into the archives and how it will be categorized. The chronotopes, organized by tags in the major websites, are already pre-categorized, making an algorithmically determined future search easier to project. This enhances the possibility to apply facial recognition and other tracking software to any visual material and trace the activities of individuals captured in public and semi-public spaces back in time. In order to further examine the inner workings of such processes, the next chapter will focus on analyzing the storage and organization of the data doubles of people. Moreover, it will cover which forms of referent attest for the documental value in digital formats, how memory has become equated with storage, and what forms of logic a cloud archive of subjectivities may entail.

Chapter 5

Webcams and the Archive

Webcams have been discussed throughout this dissertation as producing a complex emerging form of filmmaking that has evolved in continuity with that of the classical cinematographic apparatus. Due to their ownership modes and the fact that webcam filmmaking is created by devices primarily intended for surveillance, it also reflects contemporary manifestations of the panopticon. Moreover, the networked character of the cinematic apparatus of webcams puts these cameras at the center of debate about mass information collection and the archival of personal data on a global scale. It is these latter aspects that I intend to analyze in the present chapter. How do webcams archive time according to their digital referentiality in comparison to analog cinema, and how do these records get stored in archival facilities as data consisting of computer memory, i.e. code?

5.1 Referentiality

The analog medium of film contains not only the temporality discussed in the previous chapter but actually incorporates the referent that is materially present in the celluloid. By comparing the processes of storing time in both analog and digital filmmaking, I will now demonstrate how webcams may potentially harbor a similarly materialized temporality regardless of their specific platform.

5.1.1 Archiving Time – Index, as Trace and Deixis

In this section I compare the referentiality of analog and digital film. Using classical semiotics I will analyze the indexicality of digital materials. In the writings of film theorists such as David Rodowick and Paolo Cherchi Usai, cinema is said to be dead, killed by digital convergence. The main cause presented for its demise is the alleged disappearance of the referent based on a form of indexicality identified with the material evidence of an object's trace left on celluloid by a photographic process. In *Silent Cinema: An Introduction* (2000) Cherchi Usai describes the organic matter of the filmstrip as being

composed of “[a]nimal bones crushed and melted into a semi-transparent layer intermixed with crystals of silver salts.”¹ Supposedly, the organic, fleshy dimensionality of the analog film stock, vulnerable to decay, decomposition and therefore of alteration by light’s imprint upon it does not exist in digital film. This is the main argument in defense of the notion that with the advent of the digital, the materiality of the moving image has become immaterial. Theorists like André Bazin, Mary Ann Doane, and Cherchi Usai, who define cinema as an archive of existences indicate that the visual index consists of an imprint; that is, a mark brought about by the object’s light reflection that floats across the camera lens and lodges itself onto a photosensitive emulsion. Within these scholarly approaches to film ontology, which are based on the photochemical process of image formation, the index consists of a fossilized vestige resembling the object. Bazin calls this the death mask, which corresponds to a mummification of the photographed item or person.² Bazin poetically describes the encroachment of the referent upon the light sensitive emulsion as such:

The photographic image is the object itself, the object freed from the conditions of time and space that govern it. No matter how fuzzy, distorted, or discolored, no matter how lacking in documentary value the image may be, it shares, by virtue of the very process of its becoming, the being of the model of which it is the reproduction; it is the model.³

Bazin’s quote suggests that the act of photographing or filming someone or something forever freezes the image in time and separates it from the space where the subject has been shot. Liberated, the image containing the reference becomes autonomous – containing a specific spatio-temporality. As one may observe, this form of eternalized portrait implies the undisputable evidence that the human subject will one day be dead, that the object photographed will have vanished in the future by organic decay. Their vestige, or trace, is a proof that a person or object exists at a particular moment in time and space in front of the camera under specific lighting conditions. It is the indexed mark of a moment in a time and a space that produces an image never to be repeated. Contemporary film theorists such as Cherchi Usai and Dai Vaughan defend the position that cinema *as-we-used-to-know-it* is no longer compliant

1 Paolo Cherchi Usai, *Silent Cinema: An Introduction* (London: BFI, 2000), 1.

2 André Bazin, *What is cinema? Vol. 1*, trans. Hugh Gray (Berkeley: University of Chicago Press, 2004).

3 Ibid., 14.

to its original – that is, photographic – ontology because digitalization caused its materiality to evaporate. According to this reasoning, celluloid has ceased to stand as film's material support; consequently, cinema has forever lost its ability to create and fix the referent. Such an ontological approach considers the index as a trace of the real, which imbues analog cinema with a realistic dimension. If these material traces, i.e. the fossils, no longer correspond in form to the analog filmstrip, the logical conclusion seems to be that digital films do not contain the *referent of reality*. However, I presently suggest a different stance and argue the opposite by following the reasoning developed by Hesselberth and appealing to long-standing semiotic theories.

To begin with, according to Charles Sanders Peirce indexicality is not reduced to the trace of an existence.⁴ In this linguist's conceptualization, the index manifests itself not only as a trace but also as deixis. This type of indexicality points to some form of presence without emulating or representing it but instead pointing to the object's existence – in the direction of. The deictic index is located in the space between the sign and the object and, as a pointer in motion, is therefore unrepresentable. Examples are the vocables "this," "I," "here," and "now," which indicate a physical relation with the object but not necessarily entailing the presence thereof.⁵ The relation is not realistic but performative, pointing at and, therefore, attesting to the object's existence. Jacques Derrida asserts that whenever the present is accessed, it entails a presence that is not of its time.⁶ This is "the very condition of non-presence of the present, (...) an other that does not appear as the present or presence."⁷ This non-presence of the present, implying a temporality that is concurrent with it but only in a ghostly manner, may be regarded as the performance of a deictic indexicality in the present. The way in which the non-presence of the present may be experienced in an image can be seen in Georges-Didi Huberman's *The Image in Spite of All* (1984) where he describes one of the four photos of his analysis, a nonrepresentational photography of the Holocaust, as *pure gesture*, and therefore performative.⁸ The unclear and unfocused photograph, a shot taken by a shaking hand, is just as revealing of the horrid events of Auschwitz as the other more legible

4 Charles Sanders Peirce, "Logic as Semiotic: The Theory of Signs," in *Philosophical Writings of Peirce*, ed. Justus Buchler (New York: Dover Publications, 1955).

5 Ibid.

6 Jacques Derrida *Derrida: What Comes Before The Question?*, viewed May 1, 2014, <https://www.youtube.com/watch?v=Z2bPTs8f5pk>.

7 Ibid.

8 Georges Didi-Huberman, "The Index of the Absent Wound (Monograph on a Stain)," *October* 29, Summer (1984), <http://www.jstor.org/stable/778307>.

ones.⁹

Another example of analog imagery containing nonrepresentational deictic indexes is Bill Morrison's *Decasia* (2002) (**Fig. 15**). This film evokes the Holocaust and the atomic bombings of Japan while omitting actual footage of the events. Instead, it relies on an aesthetic that is associated with the times and occurrences of the Holocaust, achieved through Morrison's confrontational montage of aged film stock. Bernd Herzogenrath gives insight into the means by which film's materiality may be more expressive than the actual narrative, since it contains a deictic, performative indexicality that evokes other presences that are only pointed at. According to this film theorist, "[m]ateriality has significance independently of human action or intervention."¹⁰ If objects can be considered to exist independently of human consciousness, they may have a unique and specific temporality. In the case of film, this temporality is inherent in its materiality – the chemical components that react with and against one another and attempt separation. This natural chemical response results in material decay. Filmmakers like Morrison have made use of this knowledge in order to experiment with the expressivity of film's material behavior. To develop a concept defining the specific materiality of the film image – the matter-image – Herzogenrath builds on Deleuzian film studies, situating *Decasia* as a case-study:

If such an interest in the "possibilities" of the celluloid had already driven much of the 1960s "avant-garde" (Brakhage, Jacobs, etc.), *Decasia* in addition does focus not only on film's "thingness" but also on its own, particular "temporality." Put together from found footage and archive material in various states of decay, this film reveals the "collaboration" of time and matter as in itself "creative," and ultimately produces a category that I will call the matter-image and that, I argue, neither Deleuze's movement-image nor his time-image completely grasps: here, time and matter produce their own filmic image.¹¹

In this quote, Herzogenrath writes that Morrison has expressively used the material aspects of the filmstrip as his predecessor, Brakhage, did when hand-painting it. But the author argues that Morrison has taken a step further by extracting and exposing the temporality that determines the image's materiality. Compiling archive material has allowed Morrison to experiment

9 Ibid.

10 Bernd Herzogenrath, "Matter that Images: Bill Morrison's *Decasia*." in *Media|Matter: The Materiality of Media, Matter as Medium*, ed. Bernd Herzogenrath (London, New York, New Delhi and Sydney: Bloomsbury, 2015), 112.

11 Ibid., 113.

with an instance of image creation that Herzogenrath conceptualizes as the “matter-image.” This concept directly relates to Deleuze by building upon and moving beyond the philosopher’s concepts of the movement-image and time-image, as these originated from the content of the image inscribed on the filmstrip. In doing so, Herzogenrath aims at studying the matter of film as an image – to consider all physical elements of the celluloid and their time limitations as an integral part of image formation. Instead of trying to mask the signs of aging and degradation, *Decasia* embeds film’s materiality in the form of the medium’s temporality.¹² The resulting film consists not only of the imagery captured through a camera lens and chemically fixated upon the celluloid, but also of the time of the filmstrip’s inception and (continuous) death. This includes scratches on its surface and fingerprints collected throughout the whole process of film production and post-production.

My own artistic research has focused on the materiality of webcam streams and how the marks of time can influence the formation of meaning and perception of content. The expressivity of fluctuating frame rates, for example, has been incorporated into art works as form of content in a manner similar to that of Morrison’s material incorporation of time in *Decasia*.¹³

Morrison has coupled the intense expression of the material expiration with the choice of editing imagery representing similar cyclical processes.¹⁴ The result is a film that shows the marks of time and that centers on time itself: an aesthetics of the temporality of celluloid. As Herzogenrath points out:

Decasia does not see the signs of the time as flaws, as material defects – they rather transfer their own aesthetics onto the images. Morrison has deliberately chosen sequences where the representation engages in direct contact with the material carrier ... “Flames” are dancing over the close-up face of a woman, “wounding” both celluloid and image. The film’s|woman’s skin cracks and bubbles and seethes like molten lava – the woman’s face gets “out of shape,” melts. The subject|title of

12 Ibid.

13 Gilles Deleuze and Felix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (London: The Athlone Press, 1988), 43–44.

Deleuze and Guattari define *form of content* as follows: “Hjemslev was able to weave a net out of the notions *matter*, *content*, and *expression*, *form* and *substance*. These were the strata, said Hjemslev. Now this net has the advantage of breaking with the form-content duality, since there was a form of content no less than a form of expression... *the first articulation concerns content*, *the second expression*. The distinction between the two articulations is not between forms and substances but between content and expression, expression having just as much substance as content and content just as much form as expression.”

14 Herzogenrath, “Matter that Images,” 123.

the film seems to have transferred|inscribed itself into its material.¹⁵

It can be inferred from the above quote that *Decasia* contradicts the trend towards film restoration in that it exposes, rather than tries to hide the effects of time on the film surface. In fact, as these are exacerbated by the montage and used as a “stylistic” device, they then acquire a determinative function in the mise-en-scène of *Decasia*. According to Herzogenrath, in *matter-image*, it is the matter that produces the image rather than reproducing it by representation. The illusion of reality is literally replaced by the presence of the

Fig. 15 *Decasia* (Bill Morrison 2002)

matter of time.¹⁶ As a result of the struggle between the elements that fight for separation due to chemical decay over time, the film portrays and embodies “the interplay of entropy and evolution, of the past and present, intention and chance.”¹⁷ There is constant communication between the narrative emerging

¹⁵ Ibid., 124.

¹⁶ Ibid., 125.

¹⁷ Ibid., 127.

from the archival materials and the material's erratic effect on the imagery. As such, *a new film form*, the matter-image, emerges where "scenes in which the amorphous mass threatens to swallow the 'diegetic life' are on a par with scenes in which the image precisely seems to emerge out of that blob."¹⁸ In this way, Herzogenrath unveils the expressive potential of organic quality of a chemical process that develops over time and is generally perceived as decay.

In considering the indexicality of the medium in relation to *Decasia*, one finds there seems to be no tension between the two temporal manifestations of the index – trace and deixis. They are both embodiments of the real, and in the example of *Decasia* can be experienced separately or simultaneously. The first manifestation is representational and realistic, the referent of the object. The second is performative: the blobs that point to the non-present present by using the medium's temporality as image production. A parallel can be drawn to webcams, which film the individual on the street and yet depend upon a smooth transmission for the imagery to be awarded documentary value. For example, the lines cutting across the screen in my artwork *Realtime Ellipsis* presented in chapter four, reveal the film's expressivity in the same degree as the image originally filmed by the webcams on Times Square (**Fig. 14**). The presence of time and the way it expresses itself through the medium is central to the film's meaning as it is manifested in the imagery's aesthetics. This aesthetic is determined by the indexicality of time that embeds digital materials.

5.1.2 The Indexicality of the Digital

Further analysis of the way in which the deixis integrates content by the formal manifestation of temporal traces is deepened by considering specific approaches to analog versus digital materiality. Mary Ann Doane contradicts other scholars who claim the digital is immaterial. However, in the following passage, Doane seems to suggest that the digital has to somehow *prove itself* since it no longer possesses the same medium-specific relation to indexicality as the analog, celluloid-based film:

The challenge of digital media, in its uses and theorization, is that of resisting not only a pervasive commodification of the virtual but also

the digital subsumption within the dream of dematerialization and the timelessness of information, returning history to representation and reviving the idea of a medium. Making it matter once more.¹⁹

I agree with Doane's observation that the digital constitutes a medium in its own right and that the "post-medium era" is a myth based upon the erroneous idea of the digital as immaterial. The author further claims that the presence of the deictic indexicality in digital media could allow for time to be archived. Surprising, though, is the position Doane apparently takes when hinting at the idea that digital information remains immutable across platforms: that data, because of numerical translation, remain stable and unchanged during processes of reproduction and dissemination.²⁰ This would imply that we are witnessing the presence of the same unchanged indexes across all platforms, and that these are unaffected by the medium during data exchange processes. This line of thought suggests that it would be impossible for a medium-specific indexicality of the digital to exist, based upon Peirce's premise that indexes, both as trace and deixis, are "characterized by a certain singularity and uniqueness; they always refer to individuals, single units, single collections of units, or single continua."²¹ Doane claims that due to the reproducibility and apparent unchangeability of digital images, the medium-specific indexicality no longer produces Peirce's singular forms of referentiality. For Doane, the index is probably still present in the digital as deixis but not as trace, thus implying that the disseminating platforms and storing the data would not imprint the code with their own intrinsic temporal existence as celluloid did. I will address shortly what I find problematic in this position.

Several of my film experiments have led me to realize that the digital medium does in fact affect the images being captured, distributed, and displayed by means of the webcams. Reviewing the example of Morrison's analog film *Decasia*, we note it is not the content being displayed by the edit of archival footage that evokes a particular reality, but the aging marks left in the film stock. These marks of temporality lend *Decasia* a second layer of meaning that provokes an anachronistic encounter between the spectator and the horrific events taking place in European concentration camps and in Nagasaki right after the atomic bomb. The encounter occurs during the film projection when the viewer experiences the material form where *Decasia* archives the time of the Second World War. In the example of *Realtime Ellipsis*

19 Mary Ann Doane, "The Indexical and the Concept of Medium Specificity," *Differences: A Journal of Feminist Cultural Studies*, 18.1 (2007): 128-152, 148.

20 Ibid.

21 Ibid., 133.

the time of filming is present during the observation of the noise that refreshes left on the code composing the images.

Another interesting example of material temporality found in analog film is Peter Delpéut's *Lyrical Nitrate* (1991) (**Fig. 16**). When discussing the archive of aging film stock, André Habib states that:

Fig. 16 *Lyrical Nitrate* (Peter Delpéut 1991)

[A] new poetry of ruins ... arises from the history of the archive and the preservation of films, but operates a major inversion: what creates the emotion is not the objective history of film, but time's presence, which the archive – fragmented, in ruin – can re-present.²²

He notes that there is an aesthetic of decay born out of the film archive that highlights the temporality of film itself in terms of its materiality rather than the precious images it may contain. What these archival films do is bring to the front of the debate the form of content of film, what Habib calls “an intriguing dialectics between form and content”²³ with the result that “an object appears and says something of itself through its ruin.”²⁴ In this case there seems to be a very strong presence of both the machinic and the organic that pushes the director to take a back seat. The material is expressive on its own and the final output of the montage apparently results in a random use of the imagery. As Habib claims, “Delpeut’s intention seems to have been to create the impression, on the level of the montage, that the film was an unearthed mummy” without further intervention and as if it had been “made in this way, which is an obvious fiction.”²⁵ Highlighting similar qualities as Herzogenrath does in relation to Morrison’s *Decasia*, Habib compares human and film temporality that is manifested by its combustion – something mostly happening during projection.

Fig. 17 *Errata* (Paula Albuquerque 2001)

23 Ibid., 129.

24 Ibid., 129.

25 Ibid., 132.

Burned film is thus animated simultaneously by movements of death and survival. The image it produces is a live imprint of exposed time, which continues to corrode itself following the same time pattern as human time, precisely because it participates in the same temporality as human time—one oriented towards finitude.²⁶

Habib concentrates on human finitude and the parallel with analog timelines. Film is dying throughout its life, just like humans. And, as with humans, it carries the marks of the body's aging.

My own self-reflexive film *Errata* (2001) (**Fig. 17**), pre-dating my work with webcams, is a film about the Portuguese ex-colonies, focusing on the finitude of organic matter and foregrounding forms of indexed temporality as means of expression.²⁷

In a montage of analog footage shot by my grandfather, my narrating voice guides the viewer through what seems to be a confused journey into memories lived in the 1950's and 1960's in Mozambique. The volatile super 8 film jumps out of the projector's sockets during scanning, seems to double the frames at points, and horribly breaks into flames while, coincidentally, showing recently deceased people – close friends and family of my grandparents. As my fascination with temporal materiality dates back to these experiments, I chose to incorporate these *accidents* in my final film. More than the events or intimate moments it depicts, the footage and montage stand witness to the time of the filming: the colors alone testify to that era – not only by virtue of the way they have faded through the years, but also in terms of the specific tonalities of blue and pink that have painted the memories of life in the Portuguese ex-colonies. These memories are attached to the medium that was used to capture them, super 8 cameras, which middle-class families owned and pointed at their surrounding environments to document home, family, friends and their adventures on the African continent. This is a form of personal memory that is pervaded by medium-generated marks of time. The post-independence generation remembers their grandparents as young people smiling and waving in super 8 grain and tones, just as they remember their parents with moustaches and blue eye makeup captured in small and yellowed square-shaped Polaroid photos. It is possible to predict that future generations may have memories that are influenced by the medium of the webcams: visual

26 Ibid., 135.

27 According to Raquel Schefer, this is the first self-reflexive film about the Portuguese ex-colonies. At the time of writing, she was a PhD candidate in film studies under the supervision of Philippe Dubois. These words were uttered during the public presentation of my film *Errata* (2001) at the conference "Cinema et Révolution: L'Exemple Portugais," organized by the Sorbonne Nouvelle (Paris III) and held at the Calouste Gulbenkian Foundation, Paris, 2013.

recollections of a world of shops and highways portrayed by imagery with saturated colors and permeated by glitches.

More than depicting specific events, films made with found footage contain a temporality embedded in their materiality, producing pointers to existences. The medium of film testifies to the temporality of the object but also, in a self-reflexive way, to its own temporality. Webcam imagery contains deep wounds similar to those of film stock that affect it both as an archive of time and the way in which their footage gets archived. As seen before, these marks inherent to analog cinema include not only the light imprint of the object but also the scratches left in the celluloid flesh by the camera, the chemical bath, and the film projectors. From the moment of image capture, during data transmission, and in the final viewing, webcams similarly create a palimpsest: an overlay that causes the spectator to embody materialized memory. Thus, to recapitulate, it may be concluded that webcams can hardly compete with the analog when it comes to an indexicality solely based on the trace left by the subject's light reflection onto light-sensitive emulsions. Clearly the digital process works differently from analog in term of the method that translates light imprints into electronic data. However, all of the other material qualities associated with the analog filmstrip and the way in which they testify to the time of the shoot and subsequent projection and storage can be found in digital platforms: a temporal referent that allows the archival and expression of time (both as trace and as deixis).

In relation to this subject, Matthew Kirschenbaum states that one cannot study new media without taking into account "individual instances of inscription, object, and code as they propagate on, across, and through specific storage devices, operating systems, software environments, and network protocols."²⁸ According to Kirschenbaum, every new media object produces a mark at every step of its creation and transmission. As information mutates across platforms, no digital object remains unchanged, contradicting the idea that the digital is immaterial and that convergence from molecules to bytes overcomes medium specific traceability. Digital media apparently are as material as analog media, creating indelible indexes both as traces and as deixis – from the moment a passport photo is taken to the time when it is floating on a cloud and later gets emailed to the central identification archive, where it will be stored on a hard drive. Moreover, the data erased to make space for new data storage will still be readable long after its demise. Warren G. Kruse

28 Matthew Kirschenbaum, *Mechanisms: New Media and the Forensic Imagination* (Cambridge, Massachusetts: MIT Press, 2008), 23.

and Jay G. Heiser state, “every rite leaves faint traces behind it, even when media have overwritten numerous times.”²⁹

5.2 Materiality

Digital materiality seems to be acknowledged, even if belonging to a different order, as traces being inscribed not in atom-based platforms but electronic storage devices. These platforms are not transparent pathways across which data travel unchanged. They also affect the data they store by constraining the modes of inscription and perception. This is a subject I consider relevant when examining archival modes and categorization of webcam streams. Wendy Chun has written extensively about memory, storage, and the specific matter of code in *Programmed Visions: Software and Memory* (2011). In her book she notes that the digital forms of archiving abide by different parameters ruled by a logic of programmability that affects memory storage. The implications of such processes have far-reaching consequences for archive-building formats, but also in terms of how data may be accessed in the future. With webcams it is relevant to at least superficially approach this issue since the cameras produce imagery that carries the marks of their time together with data that in the future can retrospectively and retroactively be subjected to interpretation. Access to this memory will determine not only how the present is to be seen but also how it will affect the anticipation of future events. As Chun’s writings affirm, foresight becomes programmability.³⁰

5.2.1 The Computer as Archive: A Matter of Code

The analog medium of film as an archive of time has been understood as a form to preserve the past in order to enjoy it in the present. The digital cinema platform may represent a means towards the manipulation of the future by pre-categorizing the look of the present. This instance occurs through constant code generation producing the digital supports upon which the inscription of events will occur. The encoding of these digital supports will

29 Warren J. Kruse II and Jay G. Heiser, *Computer Forensics: Incident Response Essentials* (Boston: Addison-Wesley, 2002), 77.

30 Wendy Chun, *Programmed Visions: Software and Memory* (Cambridge, Massachusetts and London, England: The MIT Press, 2011).

determine *a priori* its mode of storage and range of traceability. In relation to this subject, Chun writes that new media create the widespread idea that through the layering of past patterns, a programmability of the future is made possible.³¹ Hypothetically, data collection of the habits of individuals in shopping streets by observation of webcam streams could result in pattern-prone intelligence, and assist in the prediction of future movements. At present a programmability of forthcoming scenarios is rendered possible by the institution of patterning algorithms, which order the organization logic of constantly archived streams. In this respect, Chun argues that:

Computers are mediums of power ... Through them, we can pleurably create visions that go elsewhere, specters that reveal the limitations and possibilities of user and programmer, choices that show how we can rework neoliberal reformulations of freedom and flexibility.³²

It can be inferred from the above quote that the programming underlying the software used by computers constitutes a specter, a “ghost in the machine” that provides the outer limits of the user’s digital-based activities within the computational realm. In the observation of webcams, regardless of how it may seem to be the user’s choice as to which tag to choose, i.e. “beach,” “church” or “bar,” one arrives at an impression of reality that is code-dependent. The interface, the computer-generated coding, and the coded alternatives strictly determine this impression. Even if every user chooses a different tag in a webcam-dedicated site, the amount of entries as well as their form of access is predetermined by the above-mentioned computational specter.

Beyond access to information, however, software and data are both stored and treated similarly by the algorithm-based logic of the computer. As Chun writes:

This always thereness of new media links it to the future as a future simple. By saving the past, it is supposed to make knowing the future easier. The future is technology because technology enables us to see trends and hence to make projections – it allows us to intervene on the future based on stored programs and data that compress time and space.³³

31 Ibid.

32 Ibid., xii.

33 Ibid., 97.

Chun seems to point us in a direction that affirms how storing the past should help predict the future: a temporality filled with more projections of the future's future that arise from software and information stored away in hard drives. Both the access to information and the information itself are brought together by means of a single machine. This machine, the computer, functions as archive when it acts as a storage device. The computer is made of data and software that combine memory and the processing ability of these components. Both the content and the tools to access and modify it are stored in the computer's memory. This implies that memory and storage have become one whole-encapsulating concept, causing the computer, including its hard drive, to arise as sole platform of the digital archive of personal data. As Chun corroborates, "by bringing memory and storage together, we bring together the past and the future; we also bring together the machinic and the biological into what we might call the archive."³⁴ The footage generated by webcams produces images of the individual that will be stored as computer memory. These images will be determinant in the future when the viewer is observing human behavior and the results of this behavior. Ascribing a person's image with the same status as any other sort of data makes predictions hard to dispute when a specific algorithmic pattern is discerned. As the archive of webcam footage has consequences for the cinematic apparatus, an understanding of memory as storage and as code allows the individual being filmed to act, for example, according to particular expectations in order not to trigger algorithmic predictors.

5.2.2 Fragile Memory

An archive consisting of human memory including footage generated by webcams is stored in the body of a hard drive, fittingly called computer memory. However, besides the code-based limitations that condition access to this pre-programmed form of processed human memory, there are also restrictions imposed by the materiality of the apparatus; that is, the embodiment of memory by the storage capabilities of the internal/external hard drives. These are precarious storage devices believed to contain the collective human memory, including the cultural heritage that has been tirelessly digitized to ensure its preservation. The digital archival process

creates complex situations posing questions as to how to best store the ever-multiplying storage devices and how to preserve them. To address the first issue: digitizing the world does not transform a thing's materiality into the immateriality of its digital double. The data double still needs to be stored in a suitable platform, which in turn requires computer memory space and specific conditions to outlive its material counterpart. The data constantly produced by webcams and the collection of personal data at large demand increasing the size of storage resources. A film traveling from celluloid to digital requires a great amount of memory allocation – hundreds of gigabytes – in order to retain matching quality. With high definition cinema, already digital in kind, not only terabytes but petabytes are in order. If the vast amount of data generated by webcams that capture sound and image around the clock is to be considered, a new term for the required memory units should likely be invented. This implies that digitalized content always require some sort of material interface for storage. As an example, the round tin boxes housing analog film reels metamorphosed into the rectangular prism of the hard drives.

Also to be taken into account are the growing storage capacity of contemporary hard drives and the increasing amount of real estate facilities that are built or refurbished in order to house neatly arranged towers of led-pulsating memory drives. In response to the second item: hard drives are known to be short-lived and highly reactive to external conditions. They cannot withstand extreme temperature peaks and fluctuations nor humidity or even low levels of radiation. The Internet is plagued by personal stories of dying computers and memory backups, including those in the cloud, which is simply a network of hard drives dependent on material storage devices. This is a threatening scenario when considering that most production of content of the last thirty years exists exclusively in digital form. Even if scientists and technicians could devise storage materials to safeguard data for a million years, their efficiency is hard to prove at present: magnetic hard drives are still the standard, expiring around their tenth birthday along with the memory they were made to protect.³⁵ If to all these difficulties one adds the obsolescence of formats, conversion methods, and operating systems, among others, the future of a digitized cultural heritage seems in peril. In other words, as Chun writes, “[d]igital media, if it ‘saves’ anything, does so by transforming storage into memory, by making what decays slowly decay more quickly, by proliferating what it reads.”³⁶ There are two aspects to be discerned from Chun's quote. The

35 MIT Technology Review, accessed July 13, 2014, <http://www.technologyreview.com/view/520541/million-year-data-storage-disk-unveiled/>.

36 Chun, *Programmed Visions*, 138.

first is that digital media saves data by creating interchangeability between memory and storage. The second is that the containers for this storage are volatile and cause digital media/storage to fade away even faster than human recalling abilities would.

To paraphrase Derrida apropos this subject, the archive kills memories when it attempts to store them.³⁷ Seemingly, this evidence has prompted the constant development of computer memory so that larger amounts of bytes can be stored. Presently, this memory rush is anchored in the firm belief that observation of random and eternal archive of memories might shed light on or program forthcoming events. Reversing memory's ephemerality is the main guideline followed to further enhance the capacity of this ever-growing archive and forever maintain the traces left by events in the world's memory. In conclusion, it is possible that every single action on the Internet has been and still is being recorded, just as life in the streets is also being recorded, producing a random package of information that might help to generate the perception of patterns through the analysis of sheer repetition.

The difficulties of memory storage may be killing all the digital data, but problem-resolution may also include moving data to other devices while updating their access modes. I agree that, on one hand digital archivization processes are making it increasingly harder to access stored memory. On the other hand, as noted earlier, one may retrieve data retroactively by recuperating palimpsest instances of recording. In any case, should memory storage be considered as the basis for a programmed future, it is relevant to further try to understand Chun's reasoning when she states that the code used both to store and analyze the data is itself a form of knowledge. According to her, code materializes as logos, as memory, as storage, something that is universalized and forever inscribed in digital media and that can be accessed on future occasions.³⁸ When applying these ideas to the present reality of storing webcam imagery, future viewers may consider what they see as knowledge acquired about their past – our present. Moreover, knowing that these images will automatically be regarded as logos allows for present coding to attempt influencing future viewings.

As Chun points out: "Memory traces, to repeat Derrida's formulation, 'produce the space of their inscription only by acceding to the period of their erasure'."³⁹ which translates as: the need for memory is caused by its own volatility. This could explain the fact that webcams are constantly capturing

37 Jacques Derrida, *Archive Fever: A Freudian Impression*, trans. Eric Prenowitz (Chicago and London: The University of Chicago Press, 1998).

38 Chun, *Programmed Visions*, 167.

39 Ibid., 169.

imagery, a fact attended by fear of an escaping present that will be forgotten should it not be stored. How these images will be preserved and therefore how they will influence the future, gives webcams a valuable stance. Examples that can be observed daily while one is searching for new webcam-found footage such as that of the DonnieCam (**Fig. 18**) provide evidence that a great deal more than is generally acknowledged is likely being archived. Possibly the biggest problem to be faced in years to come is that of public access to these memories, rather than their erasure, or inexistence. Webcams and their footage are extremely valuable when it comes to stored data as they provide a complex overview of city life comprised of audiovisual material collected from specific angles in carefully chosen locations. These data are supposed to be streamed and not stored (at least not permanently in general), with the exception of particularly extraordinary occasions. Normally, private owners do not save their streams. The DonnieCam, as mentioned, surprisingly began displaying old streams. These have been fed back into the Internet, when they were not likely to have been stored in the first place due to lack of storage

Fig. 18 People drawing messages in the street for Don in front of the DonnieCam

capacity. I would argue that no matter how volatile magnetic hard drives may be at the moment, technological advances should be capable of ensuring proper storage conditions affordable to the ordinary individual. Storage containers will probably be replaced over time by devices with increased longevity. What may be cause for concern is, thus, not the erasure of storage, but how the ordinary citizen will access this extensive intel.

Fig. 19 A corridor with thousands of pulsating hard drives stored in one of Google's data centers.

Since I began observing webcams, I have discovered that many have already been taken offline, i.e. Kalverstraat in Amsterdam. While these most likely still stream to a monitoring center, they have ceased to stream on the Internet and are thus no longer publicly accessible to ordinary users. However, even inaccessible cameras probably keep records from the streets and other public areas that are being archived. Such dormant, non-transparent accumulation of information may be called back to action, once its usefulness becomes apparent enough. As Chun notes, “[d]igital media are not based on the regular obsolescence of information, but rather on the resuscibility or the

undead of information.”⁴⁰ The preservation of webcam imagery as zombie intel is a form of safeguarding the eventuality of its potential use.

The storage of *all* webcam streams consists of a decentralized process, which makes it difficult to pinpoint the exact location(s) where these data are archived. As an example of mass storage facilities holding personal data, I will refer to Google’s data centers (**Fig. 19**). These consist of enormous warehouses where pulsating *undead* information is stored in optimal conditions, quietly waiting to come out of the slumbering darkness and back into the light. This archive of traces of contemporary history is also constantly rescanned in order to establish connections and further increase its processual capacity. The ability to recognize patterning by repetition upon which logos is based also affects the code component of the logos when generating algorithms to accompany memory expansion. As webcams film constantly, their archive has to grow at least in the same scale and rhythm so as to harbor all audiovisual records of public human activity. The algorithms reigning over an archivization of the self-generating footage may contribute to programmed visions that only a few may have access to in the future.

Narrative

5.3

In this section I will focus on the narrative of the archive, its inner workings and the ways in which it can be influenced and altered. Specifically, I will foreground the ability artists may have in providing the archive with alternative versions of the official narratives.

Code as Logos – Anticipating and Programming Future Flows

5.3.1

According to Jacques Derrida, every archive seeks a narrative logic that will ascertain its usefulness as a form of knowledge.⁴¹ This narrative is normally determined by the authority behind the archive’s inception, or

40 Ibid., 172.

41 Derrida, *Archive Fever*.

one who is favorable to it. The digital archive aims at providing an illusion of transparency from the media used in storing memory; an example of this would be the way that the relevance of hard drive format encoding is purposefully hidden. However, as Chun argues, code influences access to knowledge but it also creates it in the process. According to Chun, code as logos enables it to stand for a form of knowledge that is equated with “automatically and unfailingly ‘doing what it says’.”⁴² This means that both programmers and users are employing apparently transparent software as a form to gain knowledge but also to produce some meta-knowledge. In relation to webcams, it is code that allows the viewer to access specific cameras at specific moments. As pointed out before, the availability of tags allows the viewer to choose a camera stream to watch.

The capacity and potential of programs present our “free” choice as users and programmers when accessing and processing content; however, this only happens by allowing the code to become both “legislation and execution.”⁴³ In this process, it “spreads a neoliberal empowerment through the embedding of governmental enforcement into everyday situations, making us ‘subjects’ of the code.”⁴⁴ As Steven Shaviro explains in reference to the inescapability of the Internet and the code that determines its content production and modes of access:

No matter what position you seek to occupy, that position will be located somewhere on the network’s grid. No matter what words you utter, those words will have been anticipated somewhere in the chains of discourse.⁴⁵

According to the Shaviro, there seems be no way to escape the network since there has ceased to be an outside to it: each individual fulfills a task within this grid that is predetermined by its code. As Chun has argued, a user is not making a strictly personal decision, but instead adjusting his action to the constraints imposed by the codification when he or she uses a piece of software to access, create or transform content. The output of the user’s activity is therefore determined by source code producing and conditioning the ways in which fragmentary knowledge is being accessed in order to produce more knowledge. Stuck in an ideologically determined code-based knowledge source that allows a minimal amount of agency, the

42 Chun, *Programmed Visions*, 175.

43 Ibid., 176.

44 Ibid., 176.

45 Steven Shaviro, *Connected, Or What It Means to Live in the Network Society* (Minnesota: University of Minnesota Press, 2003), 4.

code restricting the abilities of software apparently hinders the production of original output.

This is not to say that creativity is not possible when engaging with digital media. The knowledge of how the tools work coupled with an understanding of the role of software in limiting the options for results may aid in reaching potentially unexpected outcomes. As an artist working within the controlled environments of digital content produced through and streamed over the Internet, I intend to continue to search within code-based environments for unforeseeable navigability and hidden aesthetic languages. I argue that there is a vast, dormant potential in the new media of webcams that awaits activation. Several users, artists, and filmmakers can creatively use the cameras already in place by transposing the initial distrust inspired by their oppressive function, or by letting go of the fear of being seduced by their contribution to urban safety. Rather than allowing an external programmer to encode the future by default based on previous observations and audiovisual collection, a form of artistic agency could consist of using the apparatus and its archive to create present pointers of future flows differing from those in place. At the core of this potential is evidence of the interaction between alterations to digital code and tangible consequences in the material world. Quoting Brian Massumi, Shaviro observes:

[T]he digital is never autonomous or complete unto itself; it is always “sandwiched between an analog disappearance into code... and an analog appearance out of code.”⁴⁶

As he indicates, digital packages arise from within the analog world in order to process it according to an algorithmic logic, before producing an output that is expressed in analog terms. Completing the present argument, it may hereby be predicted that the actions which artists take up with webcams will most probably reflect upon the material reality of everyday life. With knowledge of the cinematic medium, the artist working with webcam footage appropriates the means of archiving memory and contributes to a somewhat altered perception of recorded reality.

Such an intervention would alter the narrative giving coherence to the archive. Furthermore, it would affect the ways in which the archive provides knowledge to the individual. Working with a medium constantly generating

documentary materials could influence the writing of a history based on archival digital files.

5.4 The Fragmented Historicity of the Digital *Flux*

After analyzing the ways in which code stores and produces knowledge, therefore contributing to a historical perspective of events, it is relevant to examine from an artist's point of view the historicity (historical authenticity) of digital environments. As Derrida argues in *Archive Fever* (2008), political power depends on how the archive is controlled and the ways in which its memory is contained and exposed. He draws attention to how important it is to control the narratives harbored and provided by the archive as this has a direct impact on how history is written.⁴⁷ In order to help understand the way in which webcams may affect a history-in-the-making and its future repercussions, I will at this point examine Philip Rosen's take on film as a source of historical evidence. According to his book *Change Mummified: Cinema, Historicity, Theory* (2001), a historiography should not depart from the present moment but instead must take the relations between the past and the present constantly into account. History as a form of narrative construction requires an anchor in some form of reality, which defines the relation between the subject and present or past objects. Indexical referentiality, which has been discussed earlier in this chapter, provides, for Rosen, the grounds for historicity. In the construction of his argument, he focuses on André Bazin's idea of subjectivity as the desire for achieving eternity behind the making of every art piece and as a way to rise above the referent present in the emulsion. In this way, the relations between the past of the object and the present of the referent serve as the carrier for this subjectivity.

For Bazin, the making of an artwork "[i]s no longer a question of survival after death, but of a larger concept, the creation of an ideal world in the likeness of the real, with its own temporal destiny."⁴⁸ For him, the making and preservation of film is dependent on the desire to perceive and preserve the real, a transcendent temporality present in every artwork through the index, the mark of its temporality. For Rosen, Bazin begins with the

⁴⁷ Derrida, *Archive Fever*.

⁴⁸ Bazin, *What is Cinema? Vol. 1*, 10.

assumption of a public awareness of the process of film production, which foregrounds a form of subjectification dependent on belief. This is the result of an indulgence in a double temporality, that of a past *film present* and that which is experienced by the subject in the present of the film projection. This is similar to Vivian Sobchack's theories on the experience of cinematic time discussed previously. For Rosen, the conjunction of the two temporalities of present and past is necessary for attributing historicity to the filmed event.

Regarding the digital medium, Rosen argues for an indexicality that persists regardless of the process: the object still existed at that specific moment in time in front of an analog or digital camera. From this view, purely numerical data need this indexicality in order to attribute historical authenticity to the events they document and store – the presence of the subject at the moment of inscription. However, Rosen points out a different relation with the time of the actual dispositif when he argues that in the digital there is “a state of transition and change [that] is commonly invoked only in order to mummify the digital by means of a realization of the new that is, nevertheless, projected into a future never quite here and now.”⁴⁹ Starting from his notion of past and present temporalities interweaving and evolving together, it can be understood why he opposes this static mummification of the digital by imposing the notion of the *new* upon it, a *new* that never really seems to actualize beyond the present moment and the potential (promised) future. According to Rosen, new media influence historicity by remaining in a constant state of flux. This condition alters the temporality adjacent to historicity, not allowing it to remain attached to the linearity of traditional narrative. As a consequence, historicity becomes deeply affected, particularly in the case of documentary material such as webcam footage. To clarify this aspect, I propose to relate Rosen's ideas to the above-mentioned theories of Chun that address the creative use of codified platforms and applications to the database logic of digital media's narrative potential. According to such reasoning, one could break free from chronology and instead accept history as happening in a flux, with no beginning and no end. The temporality as flux carries repercussions for the conventional narrative of the archival platform upon which its historicity is based. A fluid temporality suits the uncut status of webcam footage, from which outtakes, with no beginning and no end, may be used to construct narratives both emerging from and adding to a history-in-the-making.

49 Philip Rosen, *Change Mummified: Cinema, Historicity, Theory* (Minneapolis and London: University of Minnesota Press, 2001), 317.

Webcams are inherently digital and networked: they are born out of the Internet, and their footage was never a product requiring digitalization. Moreover, their sheer amount defies structured storage. There is a vast amount of cameras scattered all over the Internet, unordered and virtually uncategorizable since they are regularly put online and just as frequently taken down. The logic that could organize and provide them with a consistent narrative would need to rely on an algorithm or a string of algorithms that would constantly adjust to their floating numbers and allocation. For the above-mentioned reasons, the narrative and historicity of the webcams archive is always determined by software. This implies a set of instructions given by the underlying code in order to make sense of the structure that organizes the archived data. It is relevant at this point to study how the archive changes when it moves from an analog location into a digital database, moving from a place of storage to a network of code scattered all over the Internet. In order to determine how this transition affects and defines the very archive of the webcams, in the next section I will build on Lev Manovich's analysis of non-linear database narratives.

5.5 The Database Logic of New Media Objects

In this section I will consider the application of Manovich's writings on the narrative of new media objects to webcams and their archive. The logics of databases transform notions of aesthetics and poetics through the loss of the narrative, in Manovich's view. However, I argue that aesthetics are independent of the narrative in what concerns expressive potential. To begin with examining the logics of the database, I draw attention to online archives that offer multiple webcams such as Earthcam and Webcams.nl.⁵⁰ These websites, the first of which has been discussed in the first chapter, function as online archives where one can find cameras categorized according to content and location. For instance, as described in chapter one, webcams ordered by country will be tagged as "café" or "bar," or "construction." Simple or more complex storage systems make it possible for the user to navigate the sites and find the cameras showing the desired area. It could be said that such websites

50 *Earthcam*, accessed September 30, 2015, <http://www.earthcam.com>.

A website collecting Webcams from around the world, where the owners pay a fee to have their cameras featured. Access is free. Cameras are tagged according to their content; and Webcam.NL, accessed September 30, 2015, <http://hdtv.webcam.nl>.

A website dedicated to The Netherlands. Cameras are tagged according to their content.

operate in a classical fashion like libraries that enable one to find content by correctly identifying the categories under which data are archived. Once this has been achieved one must access, just as with a physical library or film archive, the proper *location* in order to view the actual webcam capturing imagery in realtime. However, even if the processes may seem similar at first, Lev Manovich highlights the differences between the analog and the digital archive, when he says that:

In migrating to a computer environment, the collection and the navigable space were not left unchanged; on the contrary, they came to incorporate a computer's particular techniques for structuring and accessing data, such as modularity, as well as its fundamental logic – that of computer programming. So, for instance, a computer database is quite different from a traditional collection of documents: It allows one to quickly access, sort, and reorganize millions of records; it can contain different media types, and it assumes multiple indexing of data, since each record besides the data itself contains a number of fields with user-defined values.⁵¹

As Manovich points out, it is not only the materiality of data that has been changed by digital conversion, but also all of the environments and the processes of archiving which have been influenced and transformed by computer structures and logic. The access to the archived information is now non-linear and networked. Unlike the space of a physical library, a website offering access to webcams allows for the close and simultaneous inspection of several cameras that provide access to realtime-generated footage. Such a website, a new media object, can be considered as an archive of webcams, perhaps part of a larger archive, but still an archive in it's own right.

New media objects, e.g. online archives, are not structured along a linear narrative but instead function according to a narrative that follows the non-linear logic of the database. By watching multiple streams, one may collect audiovisual information from around the world and yet the relationship between these streams only amounts to the separation of groupings of data present in the same platform. A webcam website contains myriad links to seemingly unrelated cameras, and each one of these features someone's backyard, office, favorite pet, etc. They remain individual webcams,

51 Lev Manovich, *The Language of New Media* (Cambridge, Massachusetts: MIT Press, 2001), 214.

independent from other cameras. Even when grouped in structured and categorized systems, they are forever separated. Commenting on the unrelated pieces of information stored in databases in general, Lev Manovich states that “today we have too much information and too few narratives that can tie it all together.”⁵² He continues in this vein, implying that this approach affects the way we see a world that seems to have been reduced to a list of items.⁵³

As these computational forms seep into the world and their traces are experienced on various levels, this database logic has become a part of contemporary culture. The digital form of the archive of world memory is that of the database rather than that of the analog archive’s linear narrative. According to Manovich, this is due to the seemingly ever-accumulating amounts of unorganized bits of information. The implications of having a networked contemporary archive bring about the constant presence of its three simultaneous temporalities: past, present and future. Whenever an archive is accessed in the present, it carries not only the past in the materials being viewed but also the traces and specters of the form providing context to the existence of these materials. In the case of webcams, themselves archiving footage, they produce realtime-generated online materials that contain a *ghost in the machine*; they carry the traces of their specific apparatus. As discussed before, instances of inscription and transmission affect the form of content of webcams. The temporality the images harbor defines the aesthetics of films made with webcam footage. This is an important aspect to take into consideration when identifying webcams with new media objects that possess database logics.

For Manovich, the database implies a loss of the narrative. Acknowledging this fact is, in his words, crucial to the creative use of new media objects:

Indeed, if after the death of God (Nietzsche), the end of the grand Narratives of Enlightenment (Lyotard), and the arrival of the Web (Tim Berners-Lee), the world appears to us as an endless and unstructured collection of images, texts, and other data records, it is only appropriate that we will be moved to model it as a database. But it is also appropriate that we would want to develop a poetics, aesthetics, and ethics of this database.⁵⁴

52 Ibid., 217.

53 Ibid.

54 Ibid., 219.

When discussing films based on computer aesthetics, Manovich links the film's narrative qualities to their aesthetics and calls for a fusion between this dual notion and the concept of the database. Beyond artworks focusing solely on medium specificity, Manovich researches more novelistic and cinematic approaches to the narrative. For him, the algorithmic nature of the database, which guides the user in his quest for information, seems to kill the narrative potential of the new media object, which becomes trapped in meaningless relationships between unordered data. As case study, Manovich analysis

Fig. 20 *Catalog* (John Whitney 1961)

John Whitney's *Catalog* (1961) (**Fig. 20**), an early example of an artwork that explores the expressive potential of the analog computer. This film is a purely formal experiment in abstract graphic animation, in which the artist pushes the aesthetic potential of the computer to produce shapes, color and movement. It is perhaps an extreme example of a formalist art piece that reflects and incorporates the medium.

Writing about this film, Manovich notes that: “[u]ltimately a digital film becomes a list of different effects, which appear one after the other.”⁵⁵ With these words, Manovich points out how a formalist concentration on effects may provoke a loss of the narrative that would connect the media specific features in an aesthetic or poetic achievement. As a possible attempt to tackle the narrative or poetics of new media, Manovich has been conducting practice-based experiments that he calls *Soft Cinema* (2002) (**Fig. 21**). These are projects that in essence seem to rely on allowing the computer to generate connections between stored images that are constantly changing with no linear order. Due to the way the computer has been programmed, no matter how many times one accesses the film it will never behave in the same way

Fig. 21 *Soft Cinema* (Lev Manovich 2002)

and the narrative ties between the different sources of imagery will always be different.⁵⁶

This project highlights the search for a narrative of database environments. It also draws attention to the manner in which algorithms may give one primacy in ordering the narrative connecting chaotic data.

In my own work, I am interested in the way that fragmented information allows for a break in linearity, which unveils the opportunity for poetics and aesthetics to arise by circumventing the narrative. When one is working with webcams and dealing with the possibility of constantly capturing the any-instant-whatever,⁵⁷ the lure of the material is so strong that potential narratives may be made and broken by slightly shifting the algorithmic trends. The narrative, in this case, differs from aesthetics and poetics, which can be found by exploring the medium and its specific expressive potential rather than trying to adapt it to narrative forms.

To explain the relation between the material world and its translation into digital form, Manovich points out that the "... computer age has introduced a new cultural algorithm: reality → media → data → database."⁵⁸ This formula may indicate that understanding the inner workings of this mathematical approach enables one to determine the relations between bits of information available in the database. Moreover, by incorporating the flaws of the system, which include digital noise, realtime failures and archival instability, self-reflexive new media objects can be created to immediately affect the system by subverting its logic. Here I am specifically referring to the vast capacity of surveillance archives to constantly generate the future visions of contemporary society and organize them according to database logic. When visiting these archives to collect found footage and make new media objects, the artist interferes with the future image of the subject, for example, by altering the profiles of data doubles as represented by a database. By proceeding in this way, the artist is taking the path back into reality: database → data → media → reality.

By opposing the idea that the archives, whether they are analog linear narratives or digital databases, are stuck in the past, Derrida advances the premise that these archives are actually focused on the future. As Derrida writes:

[T]he archive is a pledge to the future, it is not an issue of the past: it is

56 Manovich, *Soft Cinema: Ambient Narrative*, <http://softcinema.net/editions.htm#>.

57 Mary Ann Doane, *The Emergence of Cinematic Time* (Cambridge-London: Harvard University Press, 2002).

58 Manovich, *The Language of New Media*, 224.

The symbol used between the several elements indicates translation or convergence.

a question of the future, the question of the future itself, the question of a response, of a promise, and of a responsibility for tomorrow. The archive: if we want to know what that will have meant, we will only know it in times to come.⁵⁹

The future is the ultimate timeframe, providing meaning to the accumulation of data that can only be revealed when the time comes. Artists are currently creating the archives of the future by appropriating and changing archival materials, when interfering with the footage from video surveillance devices and the databases of their archives.

Fig. 22 *Unfinished Narratives* (Paula Albuquerque 2013)

To explore this further, I will look at an example taken from my artwork entitled *Unfinished Narratives* (**Fig. 22**), which consists of a montage

of fragments collected in realtime from around the world. In this specific film project I observe possible connections between spatial and temporal levels that may induce an illusory sense of narrative in the viewer. In so doing, the work relies on a montage that follows patterns created by streaming failures. These result in inconsistent color behavior along with a rhythmic movement of lines across the screen that mark the frame breaks and consist of temporal effects inherent to the medium. The resulting aesthetics address the expressiveness of the *low quality* of the medium, which stems from imagery that is captured by low-resolution optics and gets copied or recompressed during its transmission across platforms. Due to an awareness of these networked medium aesthetics, and their inherent archival modes and indexicality, *Unfinished Narratives* deals with the possibility of establishing relations between different bits of information scattered in the database. It proposes storylines that may be drawn along the way by connecting seemingly disparate imagery collected from different areas across the globe. Connecting them all by means of montage, this film draws attention to forms of historicity that do not require the linearity of chronological cause and effect, but bring the *event* of the moment to the forefront. It highlights the potential of using existing footage to build suggestions of narratives and construct a future vision of the present. This does not consist of a linear process but proposes instead storylines that can potentially be followed up and then interlaced with other storylines, bringing other possible plots forward, fictional or otherwise. In this particular work, images of a storm in Miami cut to a café somewhere in Barcelona before showing clips streamed from a beach bar in Thailand. The possibility of watching these cameras simultaneously and the potential of associating their imagery at will allows for proposing narratives that follow database logic.

I will conclude the present chapter by tying together its various sections, following a thread that has served to link my ideas about webcams. First, we have dealt with a film medium that is digital and networked. Second, this medium is archival in itself since the streams may be recorded at any point, either captured by the viewer or simply stored at any Internet access point. And finally, the appropriation by artists implies that one does not need to own the code in order to be able to contribute to it. What is useful here is a knowledge of how the system of image production works, along with its archive and access, in order to choose the way in which the historical accounts involving personal data of users and artists will be written. To this end, I

have examined at length the way that Chun develops the interchangeability between digital code, knowledge, and information storage, and how this interchangeability affects the *memory* of the individual. By relating her notions of code to Rosen's idea of historicity in film production, I have argued that the role of the artist who creates or uses new media objects with database logics may be determinant for future viewings of the present audiovisual production. In order to continue this line of thought, I will dedicate the last chapter of this dissertation to the aesthetics of the imagery that is streamed online by webcams, and the ways in which this contributes not only to their use and the reworking of their archives, but also to political statements implied in using archive materials of low image quality.

There have been several artists working with issues relating to the ever-changing logic of the archives, and each of them uses all sorts of existing materials in the creation of their artworks. The works of Hito Steyerl, Harun Farocki and Walid Raad are contributions to making history by the appropriation of archival materials that derive from all sorts of sources and platforms. The logic of the database is present in the work of these artists and enriches its potentials by extending its aims and effects to other realms beyond art. In the next chapter I intend to analyze the aesthetics of the digital archive, the narrative construction and the political impact of re-interpreting existing audiovisual materials in the three diverging approaches of these artists.

Chapter 6

Appropriating the Cinematic Apparatus

Thus far in this research I have focused on the inner workings of the apparatus of video surveillance, a category to which webcams belong, and the elements that make it a specifically cinematic medium that affects subjectification. By highlighting the genesis of its archival mode as based on a database of digital referents, I have attempted to emphasize the dual role of the affected personal cam that records audiovisual traces in a seemingly random manner, thereby creating apparently trivial footage. Leading up to describing how historical facts are constructed by the narrative determining the database logics of the digital archive, I pointed out the means by which the production of determining code influences these records' storage and categorization. Presently departing from Manovich's assumption that code is culture, it is possible to advance the hypothesis that the act of appropriating webcam materials is a form of producing culture. The ways in which artists approach this phenomenon vary in degree and outcome – some use the cameras on-site, while others edit the material they borrow from their continuous footage generation. I will now turn to the analysis of the act of appropriation in the case of video surveillance footage, but also of general archival materials. The artists who work with archive footage that I focus on in this section mix film material with other sources, some originated by surveillance, but displaying by this act a clear choice for an aesthetics that is considered substandard and, in this case, medium-specific and extremely expressive.

6.1 On Appropriation

With regard to the status of webcam footage, the audiovisual material may be termed as *found-footage* when appropriated for the making of an art piece. Several issues related to ownership and authorship may arise, since the rushes haven't been produced by the artist, but rather by the owner of the camera. When dealing with CCTV, filmmakers have been known to ask permission from authorities for the use of surveillance records or to request the footage of themselves captured during their movement in areas of heightened visibility. This is the course of action taken by artist Jill Magid when collecting the materials for her 2004 film *Evidence Locker*, exclusively shot by surveillance cameras in Liverpool and for which she staged events.

But others produce work of a very different, more subversive, nature. The Surveillance Camera Players (**Figs. 23, 24**), an artist collective inspired by the anti-surveillance manifesto “Guerrilla Programming of Video Surveillance Equipment,” have performed Samuel Beckett’s *Waiting for Godot* and other famous plays (among several political actions) between 1996 and 2006 in front of CCTV cameras.¹ They chose to perform for a public they knew was composed of monitoring guards and other employees of some institution or commercial venue who operate the cameras and watch their streams.

Fig. 23 Surveillance Camera Players performing in front of CCTV.

In the case of webcams, which are publicly accessible on the Internet, most of the time the footage will be appropriated without regard to copyright issues or questions of who may be watching. It is puzzling to contemplate the extent to which camera owners may go in order to ensure their copyrights

1 *Guerrilla Programming of Video Surveillance Equipment*, accessed July 21, 2014, <http://www.notbored.org/gpvse.html>.

are protected. On the one hand, the already mentioned Earthcam.com and Webcam.nl show real time footage generated by several cameras without making any distinction between public and private cameras. They are publicly accessible online regardless of who owns them. On the other hand, the sites claim they own copyrights to all the imagery. This raises two main issues: even if the sites' copyrights extend to the owners of the cameras, we are unaware of whether some of the cameras we are watching could indeed be used for surveillance; secondly, this further blurs the issues regarding people's rights to their own image, as the cameras are placed in public places, ranging from the church to the beach. What we know is that widespread access to materials available on the Internet has been feeding the parallel creation of tracking devices that make it possible to account for every step taken by an end user. As is known to most users, every time one accesses the Internet to watch a video on Youtube, read Facebook posts or download files both legally and illegally, the action leaves marks that can be traced back to the user and the terminal machine, and be linked to any previous records. Copyright infringement can be traced back from a future point in time to the moment of appropriation. This knowledge does not seem to prevent people from using materials available on the Internet.

As discussed in the introduction to my dissertation, the Internet is full of information of varying degrees of relevance that is constantly accumulating and further extending the networked data archive. This informational web is generated by all sorts of people, companies and state authorities. However, as Steven Shaviro observes in *Connected, Or What It Means to Live in the Network Society* (2003), the rights of private individuals diverge from those of multinational corporations.² *In other words*, companies have more legal power than individuals when it concerns access to and use of data available on the Internet. This is important in that their goals differ from those of the ordinary citizen: corporations wish to increase their dominance while individuals are more concerned about their own survival.³ Conspiracy theories that hold major multinationals accountable for the control of all resources are plausibly true, the evident corporate power over the Internet included. This influence has far-reaching consequences. All people are beings of the mediasphere that has become a natural habitat, a Latourian mode of existence whose nature is comprised of electronic audiovisuals. People have grown into it just as it has grown into them. Human beings are intertwined with networked pulsating

2 Steven Shaviro, *Connected, Or What It Means to Live in the Network Society* (Minnesota: University of Minnesota Press, 2003).

3 Ibid.

signals that tell them where to go and how to get there. As the cloud grows, so does the individual's attachment to it. As a consequence, people's lives have become increasingly formatted and codified since the corporations who own the technology determine the scope of possibilities allowed by the network as mentioned in the previous chapter.

In the realm of art, it is clear that creativity is extraordinarily influenced by technology and the paths designed by its advancement. Touch screens and sound bytes have colonized the imagination to a point that hopes and dreams are as affected by the audiovisual universe as any other determining form of primordality. The cinematic mode of existence inspires contemporary artists to create artworks by borrowing resources available within its scope. Internet art is an example; likewise, webcam filmmaking. When considering found footage and appropriation of materials produced by others, one discerns that the whole idea of originality seems to surface as a topic for discussion, even if obsolete from the onset. What my dissertation proposes as a starting point is the widespread knowledge that appropriation has been practiced since the beginning of art as a method of production: as an editing of fragments of knowledge that is rearranged in a creative order to conceive something new. Art is by nature archival. If the mediasphere of the cinematic mode of existence is the only "nature" humans know today, it can be expected that artists access and pick it in order to create artworks that have it included in their fabric.⁴ Webcams and the resulting footage are a trademark of the surveillance society. The aesthetics resulting from their use speak louder than any detailed narrative about safety or privacy issues ever would. Appropriating webcam footage echoes the position of the artist in contemporary society in relation to the archives produced by surveillance.

Blocking access to footage generated by webcams or restricting their access are counter-creative measures that seriously constrain autonomous artists from freely choosing their prime matter or medium. As Shaviro observes:

When the very fabric of our culture is copyrighted and trademarked and placed in private hands, then creativity dries up altogether. Individual creators certainly want to get paid for their work. But these creators, more than anyone else, need free and easy access to previously existing media – the raw material of art – to make their work in the

first place. The law of copyright, as it is currently evolving, means that only large corporations, or artists “for hire” in their employ, will be able to pay for the samples that they need. No individual will be able to afford the enormous royalty fees that are the prerequisite for getting hold of samples.⁵

In the near future, due to constant changes in copyright legislation, it is possible that films made with unlicensed webcam footage will be forbidden. Up to the present moment (2015) I have not yet had any complaints about the films I have been making. Some of these used footage from cameras that are no longer online; however, most of the original webcams still exist. I attempted to contact a few owners to no avail. I continue to make use of webcams, primarily working with the personal affected cams, due to the fascinating content they create. As an artist, I have made a conscious decision over the years to watch streams and harvest their material with its creative potential rather than operate my own camera. It consists of a methodic approach to contemporary filmmaking that is also intuitive, at least when it comes to the choice of imagery that will make it to the final artwork. As discussed in chapter three the act of watching and recording webcam streams can be similar to the act of film directing: once the desired intensity is felt in the stream, the capture is secured. This single take may consist of routine footage or sensitive material that has been affected by the owner of the webcam and the subjects the camera films. When appropriating footage from a webcam the artist engages in an act of defiance, not against the individual owners, but against the copyright laws in general that protect corporate sites harboring the links to these cameras. Moreover, it is a statement against surveillance as a whole. As the Surveillance Camera Players state:

Not only does the assurance of free camera time and attentive audiences offer the guerilla programmers the opportunity to point out to the guardians of the spectacle that they are being studied, but, as well, the community gathered to produce the actions can use the opportunity to investigate pertinent social and historical phenomena. As critics of the spectacle, guerilla programming actions should always be, in each group’s own way, an investigation and an expose... However, as guerillas, we must ensure that we do not relish the

camera. Surveillance is not passive and it is not our friend. We must not mistake the subversive possibilities offered by the abundance of equipment meant to curtail, monitor, and control our desires with a neat new device provided for us by the spectacle. We don't need this garbage to have a good time, any more than we need TV, but if the enemy is going to clutter our landscape with watchful eyes, we should look into those eyes and let them know how silly we think they are. Guerilla programming is production of an action, not consumption of a product.⁶

Fig. 24 The Surveillance Camera Players give the finger to CCTV

Although my artwork is conceptually different from the performative approach of this collective, I agree that the appropriation of archival material implies a strong political position that opposes the state of mass surveillance and the fact that every single action of an individual is being filmed. It also shows a subversive attitude towards the fact that the footage is being stored in highly secured data centers, protected by copyrights, in order to be scrutinized

6 *Guerilla Programming of Video Surveillance Equipment*, accessed July 21, 2014, <http://www.notbored.org/gpvse.html>.

in the future by the corporate entities who keep the intel away from the general public. Recording webcam streams, while they are still freely available on the Internet, means treating this imagery not as a free commodity, but rather as a chance for artists to make films establishing new relations between the contemporary, constant capture of filmed urbanity and future remixes of their signification. Through these creative means, artists decide how the imagery is to be read, rather than blindly allowing a corporate-determined algorithm to establish undisputed links between bits of personal data. This provides artists with the opportunity to reclaim imagery in the present and influence its future interpretation.

The owner of an affected personal cam desires to be acknowledged by and through the camera both by possessing it and by pointing it at his or her street corner or backyard. Through growing awareness of usage possibilities mixed with creative insight, an increasing number of people are turning their gaze back at the camera. Beyond a more affected camera ownership, other forms of subverting media logics have been carried out by artists who “squat” webcam streams or appropriate surveillance footage for making artworks. Examples include the just-mentioned Surveillance Camera Players and Jill Magid, but also Harun Farocki, Manu Luksch, and others. As a consequence, the appropriated affected footage, initially belonging to the owner of the camera, becomes prime matter for the artist. Once transformed into an autonomous art piece, the authorship can no longer be equated or limited to ownership, as the artist has crafted the material into a film or installation. From this moment on, it is up to the artist to determine how this extraordinarily charged material is used for making art.

Subverting the use of a webcam, even an affected personal cam, can have far-reaching consequences in terms of the attitude people in the streets have towards video surveillance. Understanding the future categorization of stored, present materials forces citizens into an awareness of their role in shaping their image for the coming future. The agency of the artist – as artist, as observer, and as observed – makes it possible to distinguish an authorship that is distanced from the authorship of the owner of the camera. The levels of affect embedded in the final piece allow the viewer to identify with a potential self-portrait, that of the person in the streets, which means anyone who lives in a city. The power of this agency may propel the subversion of the camera’s unilateralism when ordinary citizens begin to stare back, becoming

active agents. This could be the turning point in the order of events, when the individuals become aware of their roles as actors and reclaim their status as subjects rather than remaining passive objects of the observer's gaze. Furthermore, there are several approaches to the use of this material. The artist may, for example, choose to either openly criticize the camera's ubiquitous presence or raise public awareness about its impact on people's lives. In any case, appropriating this footage subverts its intended official role, entailing an active positioning of the artist as one refusing the uncritical internalization of surveillance. This position simultaneously entails an act of resistance and reflection.

Fig. 25 *OnScreen Débris* (Paula Albuquerque 2014)

The three-channel video installation *OnScreen Débris*, exhibited at Bradwolff Projects in Amsterdam in January 2015 (**Fig. 25**), constitutes a positioning related to the media frenzy surrounding the Boston Marathon

Bombing, during which the alleged suspects were identified by surveillance footage.⁷ This work concentrates on scrutinizing the margins of the image documenting the final minutes before the blasts. It focuses on all the content that officials deemed irrelevant in the footage and does so by portraying everyone present in the frame except for the two young brothers. It highlights the potential future criminalization of anyone who happens to be filmed, as the cameras seem to target virtually everyone as a suspect-in-the-making whose activities should be traced. This particular work invites the viewer to question the primacy of the face as the identifying device for recognition and tracking practices. As I specifically avoid showing the brothers' faces (a choice of which the public is unaware), I emphasize instead the evidence showing most people wearing baseball caps and carrying bags, just as the suspects did. Almost three years after the event, with the facts mostly forgotten, what remains is imagery that bears witness to how some people in the crowd appear edgy, repeatedly checking mobile phones, looking straight into the camera, or making awkward signs with their hands. Concentrating on the marginalized image data of the broadcasted surveillance footage, I offer an exacerbated perception that could imply a conspiracy involving all present, including the victims-to-be. After all, as mentioned at the beginning of this dissertation, the presence of CCTV cameras makes everyone look suspicious.

The case of *OnScreen Débris* involves actual surveillance cameras that, unlike webcams, are not intended to be accessible either online or publicly. Even though I normally do not work with CCTV and prefer to use webcams for my artwork, I was impressed with the fact that such footage had been made public and for the first time widely broadcast on television and the Internet in order to identify crime suspects. Situating this particular artwork in relation to the concepts being developed throughout the dissertation, the art piece suggests how the footage may be appropriated in order to produce archival material that subverts the intended identifying function of the imagery. The temporality of the imagery obviously does not match the footage I have extensively described on chapter four, since *OnScreen Débris* is not a chronotope, which would imply a controlled Internet realtime streaming

7 In April 2013 the Boston Marathon suffered a terrorist bombing that killed three and injured more than 260 people. Shortly after, two young brothers (Tamerlan and Dzhokhar Tsarnaev) were identified as suspects, and the military police closed down the city to hunt for them after a shootout at the Massachusetts Institute of Technology campus. This resulted in the death of the older brother and the imprisonment of the other. The younger Tsarnaev was finally convicted and given the death penalty in July 2015. Besides the role surveillance footage played in identifying the alleged bombers, I was very interested in the events, as I myself was about to participate in a media studies conference at MIT. Going there during the recent aftermath of the bombings was a powerful experience. The respect with which the issue was handled by the hosting faculty members as well as by my fellow panelists inspired me to create *OnScreen Débris*.

of live action rather than previous recordings not publicly accessible in the first place. However, the artwork foregrounds other aspects I have discussed, mainly in relation to the relevance of surveillance footage for constructing narratives. This installation further demonstrates how footage can be approached from a different angle by rearranging the aesthetic codes it relies on for meaning production.

The Significance of the Precarious Aesthetic

6.2

One of the most interesting aspects of film-based art works made with surveillance footage and webcam imagery is the recognizable aesthetic of this distinctive form. Such aesthetic is a conscious choice on the part of the artist. In opposition to the slick hyper-reality of high definition, this *precarious aesthetic*, to utilize a term coined by Arild Fetveit that I will adopt throughout this chapter, produces an output characterized by an exposition of medium interference and audiovisual decay.⁸ Beyond theorizations of the *glitch* proposed by visual artist Rosa Menkman that focus on the use of *noise* or artifact imperfection as effect, the sense in which the precarious aesthetic is related to the webcams embraces specific, interrupted sound and image signals. These are produced by the intervening surface of the current low quality of Internet optics and transmission, as a way to testify and archive a technologically determined present. In the near future, streams may develop to the point that all rough edges will be polished away, so that neoliberal aesthetics prevail in erasing spatial and temporal traces. In opposition to this trend, what the present artistic research project displays and explores through the works of other artists, and by sometimes drawing on my own, is a contemporary approach to medium as matter: the incorporation of a fragile spatio-temporality imbued with affect. The precarious aesthetic has been put to use in several forms and coined differently by others in their artistic practice and research. The works of Hito Steyerl, Harun Farocki and Walid Raad I analyze in the next section are examples of how varied these approaches can be with very different target results.

8 Arild Fetveit, "Medium-Specific Noise," in *Thinking Media Aesthetics: Media Studies, Film Studies and the Arts*, ed. Liv Hausken (Frankfurt: Peter Lang, 2013).

6.2.1 Hito Steyerl: the Poor Image

Visual artist and writer Hito Steyerl has rarely worked with surveillance footage. However, she has made several artworks using precarious aesthetics by mixing various sources of audiovisuals, thereby appropriating from all sorts of archives. More important are theories she has developed that I find to be significant for the present section. These are the concept of the “poor image” and that of an updated version of “circulationism” which I will briefly describe.

When approaching the precarious aesthetic of what she calls the poor image, Steyerl argues that the millions of avi and jpeg files roaming the Internet consist mainly of low-resolution copies of the original images:

The image is liberated from the vaults of cinemas and archives and thrust into digital uncertainty, at the expense of its own substance. The poor image tends towards abstraction: it is a visual idea in its very becoming.⁹

The cases Steyerl mainly focuses on are rare films and photos that finally, through contemporary technology, can be copied and distributed among millions of potential viewers. Due to constant copying, the image has been converted into unsuitable formats with insufficient resolution to comply with digital standards. It is no longer sharp and sleek, but blurred and sometimes its original subject is beyond recognition. These images are the debris, what is left behind, existing at the margins of the high definition aesthetics.

According to Steyerl there is a hierarchy of images placing high-resolution and sharpness on top of desirable attributes that ensure an acceptable value – documental in kind. According to this logic, there are “rich” and “poor” images: the first, sharp and shiny, more appealing to the viewer; the latter, washed out and tired, are more removed from reality and the powers of mimetics.¹⁰ Following Steyerl’s line of thought, these residual images, weighed as being of less value in the scale of commodification, imprint artworks, imbuing them with an anti-capitalist form of content. To deny the claim that digital technologies provide a seamless ground for the visualization of the world is a powerful positioning implicit in the use of such aesthetics. These experimental audiovisual artworks convey a clear decision to

9 Hito Steyerl, “In Defense of the Poor Image,” *e-flux journal* no. 10 (2009), <http://www.e-flux.com/journal/in-defense-of-the-poor-image/>, 1.

10 Ibid.

steer away from commercial film and art production.

Although unlike the previously discussed act of copying existing material and distributing it on the Internet, using found webcam footage is similar in practice to independent filmmaking, where the low image quality precludes public display in cinemas. In terms of appropriation webcam filmmaking consists of a material that is constantly being generated and deployed in the cyber space of virtually infinite possibilities, which include scrutiny and appropriation. The seeming triviality of webcam content makes the footage unsuited for comparison with standard quality filmmaking. As Steyerl points out, low resolution images “are poor because they are not assigned any value within the class society of images – their status as illicit or degraded grants them exemption from its criteria.”¹¹ They seem to be less worthy of respect and therefore remain passive in the process of appropriation and editing. The same aspect that renders this material generally unimportant makes it valuable from an aesthetic point of view: the content of webcams is their form, including the magnified pixels and delayed transmission. The artist who appropriates this material realizes the archival potential for future scrutiny and endless manipulation.

Instead of the dualist approach of poor/rich, firmly rooted in Marxist thought, Fetveit concentrates on the materialism that belongs to the fabric of the medium itself in order to introduce the notion of the precarious aesthetic. This does not so much focus on aesthetics deriving from analog-digital conversion and subsequent copying-distribution but on the clear choice artists make when integrating medium-specific noise as audiovisual expression.¹² His conceptualization of the precarious image implies an attempt to explicate the seemingly alienating features and how they might be used to more efficiently convey affect and instead create a closer relation to the viewer. Although I tend to adhere more closely to Fetveit’s conceptualization in this dissertation, I find Steyerl’s analysis of the forms of circulation that determine the aesthetics of the poor image very fruitful to understanding the political implications of choosing to use this aesthetic. In this chapter, I will relate these two aspects in order to support my argument concerning the specific usage of webcam aesthetics as a political statement.

In the introduction to *Too Much World*, a book edited on the occasion of Steyerl’s first retrospective exhibition at the Van Abbemuseum in 2014, Nick Aikens and Annie Fletcher argue that the artist-scholar introduces

11 Steyerl, “In Defense of the Poor Image,” 6.

12 Fetveit, “Medium-Specific Noise.”

a new conceptualization of the term *circulationism* that encompasses an updated way of understanding the aesthetic and political potential of visual art. I will briefly introduce this political concept, which lies at the basis of Steyerl's theory and practice, before discussing her artwork. To begin with, I propose to focus on the implications of Steyerl's suggestion that "we have long since entered into a new paradigm – a space of no return – a free-flowing system of 'circulation' that circumscribes and influences everything from the government to love."¹³ From their side, Aikens and Fletcher build on Steyerl's thoughts by adding that:

Understanding that, far from being the sovereign subjects, we too have become data-objects to be mined with relations between body, material world and the virtual becoming increasingly unstable and fluid.[...] Crucially, Steyerl remarks that circulationism, if reinvented, could also be about short-circuiting existing networks, circumventing and bypassing fixed regimes of power and money.¹⁴

In her understanding of an updated version of this mode of production, i.e. circulationism, the contemporary relations based on sharing and uploading user-generated data should cross the limits of the Internet and enter the so-called material reality, thereby directly affecting the political. "This, she argues, is the true potential of our current digital age,"¹⁵ as Aikens and Fletcher remark. In "Is the Internet Dead?" (2013), Steyerl borrows Shaviro's notion of the Internet as undead, when she focuses on the shifting status of images in a simultaneously passive and omnipresent environment.¹⁶ As she explains, contemporary images do not represent: they live across platforms and change people and their environment.¹⁷ In this manner, Steyerl maintains that images are changed, that they alter once they cross the screen's threshold, which implies that they directly affect the material world. According to her the Internet is present beyond the screen, influencing life and the economy through surveillance and mediation of social relations. Steyerl affirms that images and the real world are "in many cases just versions of each other," which are interchangeably used across digital platforms and moving between material and digital reality.¹⁸

13 Nick Aikens and Anne Fletcher, Introduction to *Too Much World: The Films of Hito Steyerl*, ed. Nick Aikens (Berlin: Sternberg Press, 2014), 8.

14 Ibid., 8.

15 Ibid., 10.

16 Hito Steyerl "Too Much World: Is the Internet Dead?," *e-flux journal*, no. 49 (2013), <http://www.e-flux.com/journal/too-much-world-is-the-internet-dead/>.

17 Ibid.

18 Ibid.

The idea that the cyber world and the material world have become interchangeable images is intriguing. In Jonathan Beller's exposition of the cinematic mode of production, it is not the image, as a substitute of the actual product, that counts, but rather the rate of its distribution.¹⁹ As an example of what this implies, viral Youtube-clips have a higher rate of *realness* than the ones that have been forgotten. An image's potential for realness is actualized by its circulation between users who have become both producers and consumers. Today, this form of visibility focuses less on the actual process of production and more on its post-production and distribution, and the acceleration rate of these processes. In the words of Steyerl "[i]t is about the public relations of images across social networks, about advertisement and alienation, and about being as suavely vacuous as possible."²⁰ This citation suggests that the autonomy of an image allows it to forge its own social relations with other images, which, in turn, implies that both the cyber- and the material world are images in a dialogue of constant circulation.

As an alternative to the hypothesis of an undesirable status quo, the term "circulationism" can be rehabilitated and turned around in order to create the grounds for artistic agency. In Patricia Pisters' Deleuzian approach to film studies, art acts as circuit breaker by escaping crippling standards and creating new aesthetics.²¹ Steyerl's politically engaged positioning echoes these claims and urges artists to pervert paradigms based on a corporate coding of circulation options. As she understands it, this form of grassroots action could "become the art of recoding or rewiring the system by exposing state scopophilia, capital compliance and wholesale surveillance."²² The contemporary digital economy could then take a turn, escape the screens and take over the streets. How could this be actualized? It is possible to imagine that the use of open source software and computers that allow customization may create 3D environments that will be realized in material form. In such cases, the material reality becomes a place of creation and not only exposure. But when Steyerl asks about the possibility to leave the undead Internet and start parallel alternatives the question remains whether she is speaking from the inside of the system or the outside.²³ In other words, is Steyerl asking users to rebel against the coded system and liberate themselves from the corporate network to build others, or can this movement only emerge from the

19 Jonathan Beller, *The Cinematic Mode of Production: Attention Economy and the Society of the Spectacle* (Hanover: Dartmouth College University Press, 2006).

20 Steyerl, "Too Much World: Is the Internet Dead?"

21 Patricia Pisters, "Art as Circuit Breaker: Surveillance Screens and Powers of Affect," in *Carnal Aesthetics, Transgressive Imagery and Feminist Politics*, ed. Bertina Papenburg and Marta Zarzycka, 198-213 (London and New York: I.B.Tauris, 2013).

22 Steyerl, "Too Much World: Is the Internet Dead?," 37.

23 Ibid.

underground of society, from hackers' collectives, the Deep Web, encrypted network overlays such as Darknet or other similar initiatives?²⁴

To understand Steyerl's practice of circulationism and the role of poor images in it, I will now discuss one of her exhibitions showcasing films, installations and a very specific exhibition dispositif. All of these media go hand-in-hand with her artistic research into the recycling of popular iconography, film culture and political ideas. For her retrospective exhibition at the Van Abbemuseum in Eindhoven in 2014, Steyerl collaborated with Studio Miessen to devise a specific architectural space created in the ten galleries of the museum's old building, intentionally challenging pre-existing notions of a ten-year retrospective. This dispositif embodies her theories of a nascent "circulationism," i.e. a new productivism, in which the digital crosses the threshold of its platforms to take over external locations and have an impact on social relations. Presented as a loop, the exhibition leads the visitor through a linear corridor that encircles the room with the installation *Adorno's Grey* (2012) at its center. Surprised by new spatial realms that seemingly match the unfolding chapters around which the retrospective is organized, the visitor is first filmed by CCTV cameras and immediately digitally erased in the installation *Surveillance: Disappearance* (2014) in the lobby, before encountering blown-up Japanese pornographic pictures in *Shunga* (2014) and eventually vanishing in an architectural framework that hosts all other interventions, projections and installations.

The majority of the visual material is made up of poor images intertwined with imagery of higher resolution and better compression rates. Visual languages ranging from those of Hollywood cinema, independent film, experimental documentary and television advertising colorfully clash and noisily overlap, thereby stimulating a dazzling excitement in the spectator. Besides blending uneven audiovisual materials into a looping exhibition space, Steyerl also provocatively intermingles all sorts of platforms, from portable DVD players to displaying images within standard video projections and to hanging flat monitors in the space. All of these choices are closely related to diverging degrees of visibility on display: as is the case with other forms of post-expanded cinema, we witness the presence of self-reflexive form of content that comments on visual culture and the attention economy.

With her focus on themes such as digital technology, feminism and militarization, Steyerl fuses pop culture with long-standing documentary

24 The Deep Web consists of large areas of the existing Internet that are not accessible to the public, while the Darknet is part of the Deep Web and forms an overlay network that can only be accessed with very specific configurations.

Fig. 26 *In Free Fall* (Hito Steyerl 2010)

traditions, and thereby creates impressive forms of political discourse. The three experimental films, *November* (2004), *Lovely Andrea* (2007) and *In Free Fall* (2010), show that images have gone beyond the depiction of pre-existing conditions and acquire a temporal dimension of their own in the process, i.e. a continuous present: they are *ongoing*. Images have crossed the threshold of the screens and invade the physical world, offline. For example, in *In Free Fall*, a portable DVD player is shown displaying an airplane exploding (**Fig. 26**), its shrapnel melted into a paste that is subsequently pressed into a DVD on which films are stored, in order to be displayed through screens like the one that displays this particular film of an exploding airplane. Through such processes of image production and recycling, Steyerl points out that audiovisuals shape our social environment by creating and influencing events in a constant flow of modulation.

As I have argued before, this form of image circulation can work to our advantage, provided that we develop it as a new mode of production. As Steyerl proposes, we could shift our perception from what an image is depicting to what it is actually *doing* and where it is *going*. This entails that we should not neglect the inherent revolutionary potential of pop culture, but

instead use it as form of expression and multiply it, not only breaking but also creating other circuits.

The aesthetics of digital visibility are central to circulationism, which arises from the constant circulation of deficient imagery. In her text “In Defense of the Poor Image,”²⁵ Steyerl specifically describes the aesthetics and the political status of the digital image as it decays through processes entailed in circulationism. As seen before, she calls its result a “poor image,” since it occupies a hierarchically lower position in relation to other, higher resolution versions, with the cinematic image positioned at the top of the scale. As she remarks, “a high-resolution image looks more brilliant and impressive, more mimetic and magic, more scary and seductive than a poor one. It is more rich, so to speak.”²⁶ Essays and experimental film that did not comply with 35 mm standard hardly ever made it to film theaters and, thus, often remained unseen. With the advent of platforms like the popular Youtube and the more artistically oriented Ubuweb, this has changed suddenly, with low-resolution copies circulating at an increased speed. The resurgence of obscure masterpieces brings the reasons for their initial demise to the surface. Their specific aesthetics testify to their status as poor images, and form the conditions of the very production of this status. What does it actually mean to consciously choose for these aesthetics, to only work with images to which this status is intrinsically attached? The poor image has become low resolution due to the conversion to a web-friendly format for rapid sharing. However, alongside these copies exist originally poor images. As an example from my artistic research, the source material for the film work is already low resolution: I consider the footage generated by the webcams producing precarious imagery as a prime matter. In this manner, my practice involves raw filmic material that at present cannot compete with the slick high definition standards of contemporary filmmaking, but nevertheless comprises potentially expressive material that reveals underlying political structures at work.

In her analysis of the poor image, Steyerl does not specifically mention webcams but her conceptualization could and should apply to this imagery, particularly as she situates the potential of the poor image within the context of Third Cinema and thereby touches upon its various political implications. More specifically, Steyerl refers to Juan García Espinosa’s manifesto “For an Imperfect Cinema” (1979), in which he discusses how minorities make films that reflect their living conditions. In this text, Espinosa calls for a production

that avoids standardized filmmaking, and instead consists of a more honest use of the medium, creating a form for intrinsically political content. Espinosa defended that a “perfect” cinema that displays mastery in film technique and artistic potential is reactionary.”²⁷ Furthermore, he believed that the future new media of his time would democratize access to film production, allowing all people to create their films with intellectual and expressive integrity. Drawing a parallel with the contemporary realm of new media as anticipated by Espinosa, Steyerl writes that:

Like the economy of poor images, imperfect cinema diminishes the distinctions between author and audience and merges life and art. Most of all, its visuality is resolutely compromised: blurred, amateurish, and full of artifacts.²⁸

Steyerl recognizes that contemporary forms of imperfect cinema, as it is created and shared today, are full of potential, since access to these images and the inherent possibility for re-mixing and appropriation involve so many participants.²⁹ But she also points out that this by no means guarantees quality, since the possible contents are as varied as there are web users (which include trolling, hate speech and harassment).³⁰ Besides, to paraphrase Steyerl again, digital communication has become a pool for capitalist sharks that incessantly attempt to privatize any arising forms of networking content as well as algorithmic processes of exposure, designed to produce future capital. In this manner, artists engage in a stark polemic when they decide to use material that rejects neoliberal aesthetics: poor images escape the corporate logics of edge-polishing by exposing the rough marks of time and space of the contemporary Internet.

While the webcam imagery I use in my experimental film work does rank under the category of “poor images,” it detaches itself from the “forgotten masterpieces” and the film essays, with which Steyerl stresses their status as *copies*, in order to produce with this material a film in its own right: I consider webcam imagery as *source material*. When choosing to create artworks with webcam footage, and thus value these images as artistic and political form of agency, one is thus still in line with Steyerl’s definition when she claims that the poor image fits within a genealogy of activist materials with precarious

27 Juan García Espinosa, “For an Imperfect Cinema,” trans. Julianne Burton, *Jump Cut*, no. 20 (1979): 24–26, <http://www.ejumpcut.org/archive/onlinessays/JC20folder/ImperfectCinema.html>.

28 Steyerl, *In Defense of the Poor Image*, 6.

29 Ibid.

30 Trolling consists of online bullying in which certain users use the Internet to sully other people’s reputations.

aesthetics, such as “carbon-copied pamphlets, cine-train agit-prop films, underground video magazines.”³¹ As she further develops her thoughts on a possible economy of this low-resolution high-speed sharable imagery, Steyerl defines the poor image as being both about “defiance and appropriation just as it is about conformism and exploitation. In short: it is about reality.”³²

To relate Steyerl’s theories to the core of my research: every second, webcams create valuable footage of everyday life, but this is considered a sub-standard and therefore less valuable production. In the meantime, the archival process of their imagery lacks the attention it deserves, its impact on street life is disregarded; and, finally, the general public appears to ignore its influences on interpersonal relations. The reality, however, is that these cameras incessantly produce supposedly inconsequential imagery and that there is no legal system that restricts or regulates their purchase for domestic use. To refer to Espinosa’s point of view, using this material within an updated form of circulationism thus consists of an honest form of filmmaking, but also takes on a political position towards the unregulated production and archiving process of people’s data under the guise of innocent, poor images.

6.2.2 Harun Farocki: The Contamination of Surveillance

Harun Farocki’s artistic work specifically engages with the ways in which the aesthetics and politics of video surveillance directly support social control. Besides the previously mentioned *The Creators of Shopping Worlds* (2001) in chapter two, I presently analyze the project for which the filmmaker used footage that was generated by security cameras in a prison: *I Thought I was seeing Convicts* (2000) (**Figs. 27, 28, 29**), filmed at the maximum-security prison in Corcoran, California.³³ I will begin with Farocki’s straightforward description of the imagery he encountered during pre-production research:

A surveillance camera shows a pie-shaped segment of the concrete yard where the prisoners, dressed in shorts and mostly shirtless, are allowed to spend half an hour a day. One prisoner attacks another, whereupon

31 Steyerl, *In Defense of the Poor Image*, 8.

32 Ibid., 8.

33 Harun Farocki, “Controlling Observation,” trans. Laurent Faasch-Ibrahim, in *Harun Farocki: Working on the Sight-Lines*, ed. Thomas Elssaesser (Amsterdam: Amsterdam University Press, 2004).

The title of this work originates from Roberto Rossellini’s film *Europa* (1951), when Ingrid Bergman’s character in a factory remarks: “I thought I was seeing convicts.”

those not involved lay flat on the ground, arms over their heads. They know that when a fight breaks out, the guard will call out a warning and then fire once using a rubber bullet. If the prisoners continue fighting, the guard will use live ammunition. The pictures are silent, and the shot is only revealed in the trail of gun smoke drifting across the screen. The camera and the gun are right next to each other; field of vision and field of fire merge. The reason that the yard is built in pie segments is clear – so that there is nowhere to hide from observation or bullets.³⁴

Farocki gives us an impression of the architecture of the prison according to the action the guards should undertake whenever fights break out. These fights are frequently deadly, as real bullets will stop the prisoners only when their wounds are fatal and ultimately cause their death. The inmates are driven to fight by gang pride, belonging either to groups called “Aryan Brotherhood”

Fig. 27 *I Thought I was Seeing Convicts* (Harun Farocki 2000)

34 Ibid., 289.

or “Mexican Mafia.”³⁵ Their knowledge of the shooting procedure conditioned by the architectural layout of the yard allows the prisoners to decide whether or not to get involved and how to best protect their lives by throwing themselves on the ground. These prisoners have been given long sentences for violent crimes and lead lives that will most likely end with a violent death within the prison’s walls.³⁶

Farocki draws attention to the position of the guards’ guns shooting into the yard as equaling the line of sight of the camera, and thus proposes a comparison between vision and death. The way the cameras are positioned in relation to the action to be taken by the guards that observe the prisoners ensures the efficacy of the prison’s institution. This prison does more than attempt to correct and punish when it joins together human beings that are forced to identify with factions of gangs, whose very specific conception of honor they will die defending. Until the moment of their death, these individuals spend their entire time working their bodies in preparation for the imminent fight. From this prism, the prison can be seen as a factory of fighting bodies that feed the cameras’ gaze as the inmates annihilate one another.

The filmmaker states that “brawling prisoners have been shot on more than two thousand occasions” at Corcoran prison.³⁷ He advances a possible reason for this frequent occurrence:

Some guards claim that their colleagues have often deliberately put members of warring groups into the yard together and placed bets on the outcome of the fights as if the prisoners were gladiators. The surveillance cameras run at a slower speed in order to save costs. In the footage available to us, the intervals were extended so that the movements are jerky and not flowing. The fights in the yard look like something from a cheap computer game. It is hard to imagine a less dramatic representation of death.³⁸

From this citation, it becomes clear that guards play roles that go beyond their professional functions. In this case, the guards are simultaneously using the inmates as source of entertainment and income, while allegedly monitoring their moves. By doing so, they adopt frequent consumerist roles that attribute attention to audiovisual material in order to produce more of this form of

35 Ibid.

36 Ibid.

37 Ibid., 290.

38 Ibid., 290.

capital. As such, inmates are steered as workers in a factory, and produce a Fordist assembly line of entertainment for those observing the cameras, i.e. the guards that bet on prisoners as if they compete with each other in a boxing ring. The audiovisual material does not need to be of prime quality or costly in order to achieve the desired effect, namely reporting on a constructed and predicted reality of these fighting gang members in which the guards have a fifty percent chance of winning their bets.

Fig. 28 *I Thought I was Seeing Convicts* (Harun Farocki 2000)

The reason for shooting prisoners with real bullets and killing them is allegedly due to the possibility that they may carry weapons made, for example, by sharpening a plastic spoon or, as frequently occurs in feature films, a toothbrush. In such cases, the guards would put their lives in jeopardy by stepping into the yard to stop the fight between the gang members. But the control these prisoners are subjected to makes the availability of

weapons, even “home”-made ones, very unlikely.³⁹ As Farocki describes, the intensified security at Corcoran has a central monitoring room from which the guards may gather knowledge about the cells (occupied or not), the doors (open or closed), and those present in the walkway. Should any of the inmates overstep their boundaries or produce an irregular movement, an electronic identification signal is emitted as a warning to other guards.⁴⁰ This environment is highly controlled, almost scripted: one could argue that it is cinematic, with cameras staging every action.

Fig. 28 *I Thought I was Seeing Convicts* (Harun Farocki 2000)

According to a panoptic model that ensures maximum visibility, most cells in American prisons are barred, and thus lack a fourth wall that would keep the prisoners out of sight. This ensures the inmates’ constant awareness of the possibility that someone may be watching them at all times. There are, however, other ways to monitor the movement not only of prisoners, but also

of other segments of the population that go beyond the classical panoptic model.

As seen in the example of Corcoran, and as I maintain throughout the dissertation, the panoptic model has evolved into disseminated and pervasive video surveillance. This surveillance mechanism covers prison yards as well as shopping centers and the public space of the streets, which enables the decentralization of institutional control in contemporary society. On this subject, and in line with Gilles Deleuze's thoughts on control, Farocki observes that:

More than anything else, electronic control technology has a deterritorializing effect. (Companies no longer have to be concentrated in one location; and production at these locations can be quickly switched to making different products). Locations become less specific. An airport contains a shopping centre, a shopping centre has a school, a school offers recreational facilities, and so on.⁴¹

Farocki further questions the consequences of prison technology for society at large, since these penitentiary facilities reflect their originary social realm. The same technology used for control in prisons is being applied in other social instances, and thus transforms most spaces in sites of production: factories turn into prisons, schools into factories, and shopping streets into prisons as well as factories.

Electronic foot tagging, for example, controls and monitors someone's bodily movements while on house arrest. Anything out of the ordinary will be noted down and acted upon. This means that someone could have a somewhat ordinary life serving a sentence by still going out of the house to work or to attend school. In this case, the space of the prison is extended both into the domestic space and the social realm, as the person wearing the tag may circulate in limited public areas, including shops, but is not allowed to spend a night outside of the allocated residential area. This residential area, seen from a more general perspective, has also been subjected to new rules of territorialization, since it is now protected by preventing "outsiders" from entering. According to Farocki, "some two hundred years after Europe tore down its city walls, ever increasing numbers of people are closing themselves off in so-called 'gated communities'."⁴² As the filmmaker further observes:

41 Ibid., 293.

42 Ibid., 293.

Security technology is no longer restricted to selectively regulating access to 'sensitive' nuclear or military facilities; today it is also used to control access to normal offices and factories. Throughout a thousand years of urban history, streets have always been public space; twenty-five years ago in Minneapolis the first system of inner-city skywalls was established with private security firms to exclude undesirables.⁴³

Up to this point, I have analyzed and demonstrated the various ways in which webcams provide a live stream of images that captures public space and at the same time has an impact on it. Farocki's citation allows me now to establish a comparison between the example of the medieval-future skywalls as an urban norm, in which webcams potentially become a more efficient control device. It is possible to predict that soon not only gated communities will make use of architecture and technology to keep out the undesirables, but that the principle of medieval city walls will return even though it may not actually materialize. These towering walls can remain invisible and metaphorical, due to the fact that control-seeking authorities may choose to rely on webcams primarily as main devices for social monitoring and control, rather than investing in costly additional physical fortification.

As Michael Palm's film shows (**Fig. 7**), there is enough sophisticated tracking software to isolate the individual in a crowd framed by cameras. The most likely result of a completely pervasive video surveillance would be the territorialization of a group of citizens and the deterritorialization of other less desirable people for the predetermined maximized production of the city space. This, in essence, ensures a perfectly controlled composition of the space that is considered suitable to be captured by webcams, owned by most citizens and streaming chronotopes. This form of urban planning takes into consideration that which will appear within the frame and whether it is in accordance with the most efficient cinematic mode of production. The main target of such a control system that draws invisible, even non-transparent, territory-demarcating lines, is to create an impression of realism by manipulating and thus controlling every single aspect pertaining to the *mise-en-scène* and the acting. Even though hypothetical, this is hardly a futurist scenario: it can already be experienced on the level of the prison, the factory, the gated-community as well as in the public space of the city streets.

Going back to Corcoran, and in order to focus on the treatment and

creation of the subject by surveillance cameras, I would like to emphasize Farocki's description of one of the inmates' death:

Guards, ready to shoot, have their guns trained on Martinez; a camera is lying in wait for an incident worth recording. ... he starts a fight with another inmate and is shot down. The surveillance video is silent. You see the white smoke from the gunshot glide through the frame. Then it takes nine minutes before Martinez is taken away on a stretcher. Allegedly the yard has to be cleared for security reasons, which takes some time. Though the event looks very different from a movie, it gives the impression that it has to take place and could only occur in this staged, dramatic way; it looks predestined.⁴⁴

The predestination of an event, to which Farocki refers, compares to the dramatic potential generated by the camera position. The fact that this particular video device is present in this specific place determines the conditions for this event to occur: the recorded death of Martinez. Reading these words and applying them to the webcams, alerts us to the reality that there is a direct relation between the way events are staged in prison and the ways in which the public and private space are shaped by surveillance techniques in the streets. Indeed, an urban street is surveilled by a camera in a way that is similar to the monitoring techniques in the Corcoran prison. Due to the careful positioning of the camera in a *set* built for a good angle (the pie-shaped yard), the action that takes place within its frame is predestined to occur. In Farocki's example, it will happen exactly in the apparently most plausible way: the dramatic potential unravels because of a predetermined *mise-en-scène*. The fact that the footage is composed out of silent imagery, either intentionally or because of technical constraints, is in this case the most appropriate factor to generate the "feel of reality"⁴⁵ determined by the apparatus and expected by the spectator. The film is silent, its motion is jerky, and the resolution is so low that one has to make an effort to absorb the meaning of the action taking place. All these factors contribute to a medium-determined, *a priori* meaning that is associated with the technical, ideological premises underlying the visual dispositif of the surveillance camera.

By filming the inmates' consecutive deaths in the yard, thus provoking

44 Hüser, Rembert, "Nine Minutes in the Yard: A Conversation with Harun Farocki," trans. Winfried Thielmann and Laurent Faasch-Ibrahim. In *Harun Farocki: Working on the Sight-Lines*, ed. Thomas Elsaesser (Amsterdam: Amsterdam University Press: 2004), 298.

45 Jean-Louis Baudry, "Ideological Effects of the Basic Cinematographic Apparatus," in *Narrative, Apparatus, Ideology: A Film Reader*, ed. Philip Rosen (New York: Columbia University Press, 1986).

the destitution of smooth bodily movement usually associated with harmonious narrative continuity, the camera further fragments the subject by showing it through its abstracted, jerky motion. This is the *rough* reality of the low-resolution subjectification of a gang member who dies defending the honor of his clan, something that is hard to identify with for most people and further distances them from the prisoners. By making a film project with this footage, Farocki deterritorializes the observer and separates him from the reality of Corcoran. One could argue that this footage was originally and officially made for monitoring and, perhaps, for archiving. Nevertheless, by transferring these images into the artistic context, i.e. by exposing its cinematic aspects, Farocki triggers the observer's mode of comprehending and analyzing an artwork. In his study on surveillance techniques, apparatus deconstruction and medium-specific subject construction, Farocki places the viewer against a background of evidence that is imbued with levels of affect, through which he shifts our assumptions concerning an individual's personal identity and positioning in the world.

6.2.3 Walid Raad: The Atlas Group Archive

Walid Raad's work is concerned with building an archive of Lebanon's contemporary history, which he calls the Atlas Group Archive. He does not attempt to follow a particular chronology, but instead constructs a factuality based on collections of objects and documents that directly emerge from specific events. In relation to the previous chapter, I consider his artwork as providing forms of historicity that the artist develops by re-arranging narrative codes of the archive. For example, by displaying images of cars that were used in bombings, Raad provides material evidence that allows the viewer to relate to historical events in an affective way.⁴⁶ The models of the cars that were preferred for carrying bombs were not out of the ordinary at the time: virtually every family owned similar vehicles. Thus, seeing compositions of images that display these everyday objects, routinely used by most Beirut inhabitants to travel and commute, provokes a direct encounter with an intimately known reality.

The Atlas Group Archive contains among its files a film called *I Only Wish That I Could Weep* (1999-2002) (**Fig. 30**), which explicitly uses footage from a surveillance camera. It consists of a time-lapse of several afternoons, captured when the monitoring guard decided to turn the camera away from the designated target to film the sunset. In the background, it shows Corniche, Beirut's seaside esplanade. This location was known as the favorite meeting place "of political pundits, spies, double agents, fortune-tellers and phrenologists," according to the information provided by the Atlas Group. As the opening credits read at the beginning of the film, Lebanese security positioned surveillance cameras in 1992 all along the strip in order to oversee the activity in the area. The credits further inform that, instead of supervising the actions of the people spending their afternoon along the water, the operator of camera 17 preferred to observe the sunset at the end of each day. He was decommissioned in 1996, after a year on the job, but was allowed to keep the tape containing his sunsets. This tape, which lasts for six minutes, was anonymously sent to the Atlas Group and is, since then, part of its archive. When questioned about the motivation behind his actions, the guard later allegedly admitted that because he grew up in the east of the city, which was divided during the war, "he always yearned to watch the sunset from the Corniche located in west Beirut."

Fig. 30 *I Only Wish That I Could Weep* (The Atlas Group 1999-2002).

By bringing the video of the sunset together with the story of the operator, who merely wanted to gaze at the sight that had been denied to him in his childhood, Raad exposes the reality of recent history and the way it has shaped society. Moreover, he points to the potential of surveillance cameras as affected and affective media that can be used in an aesthetic way for poetic reasons. As the opening credits indicate this operator was moved by a desire that he embodied as a child, and the archivist was interested as a spectator and moved by the affects conveyed through the material. Ultimately, we, the observers of this artwork (because we view this tape as an artwork), also contribute to further affecting this material through the relation we establish with it, recalling the levels of affect generated by webcams.

The presentation of this time-lapse is another aspect that should be paid attention to. We know that this technique was not Raad's decision, since the tape itself was only six minutes long. By observing the footage, we witness several sunsets; people's movements are fragmented and accelerated as several frames are missing. Eventually these people become an abstract flow of shadowy figures and the viewer fully concentrates on the small fireball repeatedly descending below the horizon. In essence, if one awards the guard authorship, he could be praised as having created a very conceptual and minimalist piece. This is precisely what Raad did, by providing the tape with an artistic context within the public presentations of his archive, and thus appropriating the footage. However, he also does much more when offering the public this material: Raad points to the reality of a country in which areas where dissent may be nascent have been supervised since 1992, these same areas where families used to enjoy a stroll at the end of an afternoon. The notions of the "suspect" and the "innocent" are reversed and analyzed according to the same parameters. By exhibiting the footage as part of an archival art project, Raad thus provides us with a view given by a medium that does not distinguish potential criminals from leisurely wanderers and in which violence is portrayed at the core of society. In this manner, this work comments on a medium that does not appear to invite social cohesion, but instead clearly contributes to society's further fragmentation: a paradoxical medium with cinematic properties that can also be used to produce objects that are poetic in nature.

Afterword

6.3

To recapitulate, artists appropriate pop imagery, porn visuals and surveillance footage in order to subvert somewhat official chronotopes, by exposing the inner workings of the medium with an awareness of the latent potential of poor images. This appropriation contributes to the creation of alternative meanings and thus provokes encounters of a less controlled nature in a productive manifestation of contemporary artistic forms of agency. As Pisters writes about artists that work with materials generated by surveillance cameras:

Rather than taking on an impossible task of overturning the system, they provide the (micro-political) urge to confront surveillance cameras, to (literally) re-view simplistic interpretations of flecks of identity, simply because they have offered us ... alternative experiences of the surveillance system, touching our brain screens imperceptibly, directly.⁴⁷

In my own artistic practice, I intend to transpose the micro-political and enter the macro-political level, which I situate somewhere in-between Steyerl, Farocki and Raad. Within the context of the present research, the films and installations that I create using webcam footage result from my effort to understand the workings of the medium, the potential of each technical element involved in producing imagery and the impact these images may have in the future. In previous projects, I focused on the possibility for narratives to emerge and dissolve in webcam streams. At present, my fascination for the pervasiveness and the intense replication of webcams has led me to experiment with staging affective encounters between the viewer and the artwork within the exhibition space. With this approach, I intend to expose the medium as a cinematic apparatus, but also to share the aesthetic potential of constantly generated material on a global scale. The exhibition accompanying this text takes place at the Stedelijk Museum Bureau Amsterdam (SMBA), and consists of a retrospective of the experiments realized during the course of this research, but also offers itself as an exploration of the exhibition space as cinematic dispositif (see Appendix). Even though I have used classical analog and digital film cameras in the past, the present focus is on the site-specificity

47 Pisters, 2013, "Art as Circuit Breaker," 211.

of the SMBA's architectural aspects and the ways in which I aim to combine formats and displays that will engage the viewer on a physical level. This involves experimentation with the scale, proximity and navigability of the exhibition space, in which the webcam emerges as an apparatus that affects the viewer and the experience in a similar way that it affects the urban space of daily human routines.

Conclusion

The main aim of this dissertation was to conceptualize webcams as emerging cinematic media. To this end, I have highlighted the ways in which the presence of these cameras influences the lives of the people they film, but also those of the people that watch their streams. Throughout this research I have demonstrated that video surveillance, as a networked mass medium, transforms urban space by creating a cinematic mode of existence. To adequately study this phenomenon, I have chosen to simultaneously follow the parallel paths of a theory-based analysis and an artistic practice. The present dissertation is the result of an experiment in artistic research in which I explore the relations between philosophy, film studies, media theory, filmmaking and autonomous art. By combining theory and practice I have studied and compared surveillance, modes of existence and capitalist modes of production, as well as notions of the cinematic so as to help delineate and conceptualize webcams as cinematic media.

This research analyzes the evidence that video surveillance affects society beyond the scope of crime prevention when it involves the seemingly random collection of data that are subsequently stored in archival facilities. The fact that webcams are considered a less invasive form of recording than official CCTV devices allows for the pervasiveness of these media. However, even if considered trivial, the continuous production of audiovisual material by these cameras will influence the future interpretation of present activity in the public space. As I described in chapter five, Derrida writes that the future will give meaning to the present,¹ which implies that deciding what will be recorded, and under which terms, involves great responsibility. However, privacy laws are deeply flawed by decision-making authorities who become increasingly evanescent and hard to identify in contemporary society. This lays the ground for a metamorphosis of the world into a closed circuit composed of networked webcams that are constantly filming human and non-human activity and feed these streams back to the viewers. As a result, a new mode of existence has emerged in contemporary society that is in essence cinematic, where most people are aware of potentially constant observation and recording.

Relying on Bruno Latour's theories on modes of existence, I have demonstrated that urbanity is shaped and adjusted according to the ways in which existing and potential cameras frame reality. I furthermore applied his theories on the usage of tools to webcams, and argued that webcams influence

1 Jacques Derrida, *Archive Fever: A Freudian Impression*, trans. Eric Prenowitz (Chicago and London: The University of Chicago Press, 1998).

Derrida refers here to the future analysis of present facts. This is done in retrospect, i.e. when the present has become the past.

and radically change the very world that has created them in the first place. In order to define this mode of existence that arose from the creation of a specific tool devised for social control, I have established a differentiation between the types of surveillance-oriented cameras and the degree to which they generate and convey affect. This subject has been studied in detail in the first chapter of this dissertation. The owners of these cameras, each with different degrees of attachment to the medium, have instilled qualities upon them by simply owning and placing their webcams where they lead their lives. In the webcams I choose the owner does not film his or her body, however, an affective dimension is attached to the image and sound produced by this camera, which can be traced back to the owner's intentions. Even if there is an automatism inherent in the webcams' modes of operation, each owner chooses to use his or her camera with a specific personal purpose, e. g. documenting the routines of newborn kittens, observing wild birds in their habitat or allowing shopping streets or parks to acquire a whole new dramatic dimension. Each of these instances produces unique footage loaded with affect. This affect is transferred through the production and dissemination process of the imagery, and from the owner to the viewer, the person who is viewed, the appropriating artist, and the public who will experience the artworks made with such footage. An affective meta-level pervades all these stages and is inherent in the body of the camera. This affective dimensionality is medium-specific and extends far beyond the surveillance purposes that are generally considered to be the main reason for the existence of these cameras.

In the second chapter, I studied the parallel development of surveillance and panopticism, starting with Jeremy Bentham's late eighteenth century architectural device known as the Panopticon. One could argue that the freedom provided by mobile cameras which may be attached to moving cars, missiles or drones involves a networked system of extreme visibility that far exceeds the tasks of supervision and data collection comprised by the original and static Panopticon. Nonetheless, there are several similarities between the Panopticon and the webcams that contribute to defining the latter as a rightful successor of the first. With its incorporation of panoptic principles, the city pervaded by webcams is transformed into a three-dimensional film set to produce online audiovisual content. The increasing presence of video-surveillance reinforces self-regulation as a preemptive measure, in accordance with the main principles of panopticism, and ensures

maximum productivity. As a consequence, there is an increase in camera awareness that affects the construction of identities entailed in processes of subjectification.

There is a visible shift in the way cities have been choosing to portray themselves through this medium: for example, Amsterdam has changed its focus from displaying picturesque touristic sites to showcasing modern buildings. The city now gives users access to webcams streaming imagery of recent architectural achievements rather than the more characteristically Dutch refurbished 17th century shopping streets. If we consider that webcams are positioned in urban spaces to produce specific imagery, then it is safe to conclude that this act is in fact a cinematic construction. This reasoning implies that the appearance of cities can be tampered with and ultimately that they are considered, perhaps not precisely as prisons or schools, but as film sets resembling those used by the entertainment industry which operate under a factory-oriented model of functionality. In a process similar to the original Panopticon, a system of visibility (and visibility) controls and shapes productive forces, i.e. the city streets and the people passing through them. As Michel Foucault pointed out, the principle of panopticism implies an experimental dimension that consists of a laboratory activity.² As I have demonstrated, publicly accessible cameras represent a suitable *dispositif* of data collection and production that provides material for social experimentation. I have therefore argued that, in the cinematic mode of existence, cities have become laboratories for experiments in social environments, affecting public life in the present and shaping the future image of these cities.

In the third chapter I have analyzed the traditional cinematographic apparatus as conceptualized by Jean-Louis Baudry to delineate by comparison the webcams' potential as contemporary cinematic media. These networked cameras are generally surveillance-oriented, although they are mostly owned by private individuals. They create a *dispositif* that has much in common with Baudry's definition of the classical cinematographic apparatus. However, webcams stream in real time, straight from the streets as if they were passive observers of reality. In light of this fact, my aim in this chapter has been to demystify the "aura" of the objectivity ascribed to these cameras by emphasizing the influence they have on the events they film. Since both analog and digital cameras frame an action in a way that is specific to the medium and its determining ideology, the context of the production of this

imagery cannot be dissociated from its outcome. This implies that, if required, even webcams that are considered to produce trivial visual content will be used for surveillance.

The artists and filmmakers who appropriate webcam footage and other surveillance materials are aware of the status of surveillance imagery and therefore choose to position themselves politically by using this on-going production as primary material. Moreover, these artists pervert the intentionality underlying control devices by exposing these materials as footage that has accumulated affects along its line of production and distribution. I regard the viscosity that is created in this process to be constitutive of the growing influence of webcams on the construction of a premeditated *mise-en-scène* that frames urban locations. As an artist who has worked with these cameras since 2001, I have attempted to map the cinematic implications of using such a medium, even when the intentions behind webcam ownership seem trivial, e.g. when showing individuals jogging in a city park.

It could be argued that the cinematic mode of existence was born before the invention of the classical film apparatus. After all, cinematic encounters can be traced back to natural pinhole cameras that show the world's reflection projected upside down and in motion.³ However, I have identified an intensification of daily cinematic encounters caused by pervasive contemporary forms of networked audiovisual production and distribution, including webcams and the affected footage they generate. Through these continuous affective encounters with mediated and mediatizing reality, made up of traditional and contemporary forms of cinema, the whole world is rendered cinematic.⁴ In the context of the present research, this affirmation entails that webcams incorporate both the principles of panopticism and cinematography, but also that they display an affective dimension that lies beyond the fictionalization of reality imposed by the *dispositif*. In my study, the "cinematic" thus stands for a condition of contemporaneity that affects everyone, regardless of instances of connectivity or even the direct observation of the imagery. Living in the city involves experiencing this cinematic mode of existence with its specific forms of time and space compression and expansion. The contemporary conditions of the cinematic are intensified by the

3 Edwin K. Lai, "The History of the Camera Obscura and Early Photography in China," in *Brush & Shutter, Early Photography in China*, ed. Jeffrey W. Cody and Frances Terpak (Los Angeles: Getty Research Institute, 2011).

In this article Lai describes the discovery of the pinhole effect in the 5th century B.C. by Chinese philosopher Mo Di: he observed the entrance of light rays through a small opening that would project the exterior on the opposite wall of a dimly lit room.

4 Pepita Hesselberth, *Cinematic Chronotopes: Here, Now, Me*. London, New York, New Delhi and Sydney: Bloomsbury, 2014.

accelerated proliferation of cameras and screens: a networked online system that simultaneously captures images from the world and feeds them back in continuous loops.

In the fourth chapter, I analyzed aspects pertaining to the specific temporality of these cameras and introduced the term “realtime” as an appropriate definition. This term is instrumental for the study of the cinematic potential of webcams, as well as for the practical implementation of techniques that explore the aesthetic capabilities of this medium. While experimenting with webcam aesthetics, I make use of a temporality that literally engulfs the real time of the single shot in traditional cinema, as well as the real time of its data transmission over the Internet. These temporal layers compose the matter of webcam footage: the digital imprint of the times of capture and transmission. The example mentioned in this chapter, my installation *Realtime Ellipsis* (see **Fig. 17**), involves a situation in which the erratic time of the transmission provoked an aesthetic repercussion that can be observed in the captured footage. This expression of time and space composes narrative units that I identified in this chapter as *cinematic chronotopes*.⁵ These narrative units are used to portray the contemporary world in a purportedly documentary and transparent fashion. The cinematic chronotopes that are offered to the viewer via Internet streams can be adjusted according to what is considered suitable framing; this framing shows desirable and productive elements that may otherwise get removed from the line of sight of the cameras. I conclude the chapter with the claim that the documentation of real live action in the streets is constituted by hubs of chronotopes that comply with the choices made by those who own the cameras and/or control the means of access to the network.

In the fifth chapter I have tackled the issue of the digital archive of audiovisual documentation produced by webcams. Even if it may be hard to prove that most of these cameras record their streams, the biggest challenge that digital archivists face at present is the storage and maintenance of the vast amounts of constantly generated personal data. Since hardware has a very finite life, the developmental focus is now turning towards conceiving sustainable hard drives designed with the capacity to remain fully operational and data accessible. The information that is being stored as code in these data centers includes metadata that profile individuals and track their activities in virtual space. Privacy laws that should protect people’s rights are overlooked by

security agencies like the NSA. Importantly, even though software developers program systems increasingly more efficient for categorizing and perusing data, e.g. through face recognition and algorithm-based logics, the public simultaneously grows aware of video surveillance.

Over the years, public opinion about webcams has undergone a shift. Looking back to 2001 when I began my artistic work with these cameras but prior to my academic research on the topic, there were relatively few publicly accessible webcams. Moreover, these cameras were viewed benignly and without suspicion by those who were aware of their existence. Since then, this consciousness has exponentially grown as people have begun to adapt their behaviors to the constant presence of cameras and to the image production entailed by such a presence. Artists and designers position themselves in relation to this medium with a growing focus on the documentary content but also with an eye towards the distinctive aesthetic of webcam imagery. The artistic initiatives mentioned throughout this dissertation demonstrate the ways in which surveillance inspire to make films and other artwork. For example, I have drawn attention to recent developments in fashion that focus on the voluntary invisibility of the human figure by means of makeup and clothing designed to confuse visual tracking systems. These cases provide evidence that, even though the proliferation of cameras is difficult to quantify or predict, webcams affect behavior in the streets. This fact is not only acknowledged by urban planners but also by commuters and tourists alike. As a consequence, people adapt to a condition of permanent visibility while artists increasingly use the technical affordances of this medium to resist control in some cases, but also to explore audiovisual aesthetics.

In the sixth and last chapter of my dissertation, I have analyzed the appropriation of low-resolution materials and the political potential of making art with precarious aesthetics. In this chapter I specifically concentrated on the work of three artists: Hito Steyerl, Harun Farocki and Walid Raad. Although the approaches of the three artists are different, the art pieces I analyze, whether films or installations, are made with archival footage. Working with imagery that stands in the shadows of standard quality audiovisuality (and is therefore considered less important), the preferences shown by these artists draw attention to medium-specific aesthetics with embedded political significance. As an example, the work of Steyerl extracts feminist values from pornographic and softcore visuals by cross-referencing the imagery of Japanese

bondage photography with mainstream film fragments.⁶ In Steyerl's films, the "poor image" gains emphasis as it emerges from the debris of a polished pop culture, thereby making an artistic and political statement against the aesthetics of *perfection*.⁷

Also making use of archival material, but specifically choosing CCTV, Farocki's artwork uses prison surveillance footage in which inmates fight each other to the death. In this recording, inmates from opposing gangs are pitted against each other by guards who place bets while observing the on-camera action. The artist exposes laboratorial aspects promoted by panopticism and emphasizes the cinematic qualities of the penitentiary encasement. A pie-shaped prison yard draws the best angle for a potential camera and thus defines the space of the film set where the action takes place. Here as in the work of Steyerl, the resulting imagery is defective, flawed by frame drops that make it difficult to follow the movement of the bodies on the screen as they kill one another.

As with the other artists, Raad begins his work with archival material, showing us a file from the Atlas Group Archive where a surveillance camera films a sunset. This artwork questions the purpose of surveillance and its choice of subject. Consisting of time-lapse sequences of multiple sunsets, the film has no beginning and no end: it is devoid of a structured conventional narrative. Raad appropriates visual material created by another and imbues the footage with additional intensities when he gives it the status of a document by including it in the Atlas Group Archive. The artist further draws our attention to the *a posteriori* creation of meaning that can be given to archival materials by performing a single simple gesture: Raad takes the footage of the sunset made by a military camera operator and displays it as an aesthetic object in an art-oriented context.

All three artists emphasize medium-specific qualities of archival material that convey more than the narrative presented, possessing within the grain or pixels of the footage traces of the objects captured and the time of the filming. They contextualize political aspects of the audiovisual production by exposing its apparatus.

I have attempted to draw out the paradigmatic way in which the several Latourian actants mentioned in the introduction engage with one another as a thread running through all six chapters. To reiterate, the actants of the affected cameras, the principle of panopticism, the cinematic apparatus,

6 Lovely Andrea (Hito Steyerl 2007).

7 Hito Steyerl, "In Defense of the Poor Image," *e-flux journal* no. 10 (2009), <http://www.e-flux.com/journal/in-defense-of-the-poor-image/>.

the chronotopes, the digital archive, and the artists produce and maintain the cinematic mode of existence. Through the active engagement with these combined elements, the city and those who live in it are subjected to a constant doubling process in which the online profile develops in parallel to the reality lived in the material world. During this process, the cameras convey varying degrees of affect while they film people who are increasingly aware of their presence and play roles according to the behavioral expectations in the locations where they find themselves. The fact that digital data are being produced and streamed in a network further implies the potential presence of many spectators and the possibility of recording. The cinematic city that simultaneously films and perceives itself while archiving the audiovisuals it creates differs from the original city in several aspects, due both to film technology and storage conditions as well as the compliance of people accepting their new roles. In several respects this can be considered a city of the future, since most of this fragmented data will only be analyzed and given meaning in the years ahead. During this research, my main guiding intention as an artist has been to understand how I could use an emerging medium that is an oppressive means of control, and yet is simultaneously a filming device with aesthetic potential. The dual role of surveillance and aesthetics gives artists the possibility of creating cinematic objects that will influence the meaning given to images that are being produced at the present moment but that will only be interpreted at a later stage.

The engagement with the subject of webcams in the present research only scratches the surface: several of the issues that I have identified can and should be explored through more detailed analyses that exceed the limitations of the current project. An intriguing example would be to study film from an ontological point of view that incorporates the forms of digital indexicality present in webcam archives. Another theme that I have approached, and which deserves further analysis, is the matter of code as theorized by Wendy Chun in relation to the shift from personal memory to data storage. In this research, I have relied on her writings to demonstrate the premeditation of a webcam's forms of *mise-en-scène*: its programmability anticipates and shapes urban flows. In its entirety, I have proposed a starting point for conceptualizing an emerging cinematic medium that, firstly, entails a technological continuity with pre-existing techniques, as is the case with most film-related media, and secondly, also incorporates an archival potential that is

code-based and determined by algorithmic logic.

A mode of existence that constantly surrounds people with cameras and screens visibly affects their lives and changes their habitat. The notion that the cinematographic has turned increasingly cinematic and interactive is acknowledged by younger generations that have grown up in an environment pervaded by surveillance and visual stimuli. This, too, deserves further attention, since the complete integration of surveillance seems to prevent any possibility of dissent from emerging among youth. Yet another relevant perspective that could be analyzed in depth is the way in which the awareness of embodied forms of political ideology may lead to the subversion of this medium. Such possibilities include artworks that emerge within a surveillance society, and which address privacy violations and expose the invasiveness of techniques of social control in all domains of life, e.g. even entering the physical body space via intra-body probes. In a world that has become a closed circuit of the neoliberal production of visibility, those artists who work with materials possessing aesthetics of lower quality, i.e. imagery from pop culture and surveillance footage, may provide alternative perspectives on the representation of contemporary society.

In parallel with this theory-based research I have worked on my artistic practice, which has in fact motivated this study from its inception. From this perspective, it is perhaps necessary to conclude this manuscript with a few words about the development of this process. As mentioned in the introduction, my theoretical writing is catalyzed by the film pieces that I have been making, since 2001, with webcam-generated footage. The extreme attraction I felt for these materials and the appeal of their aesthetic potential drove me to initiate this project. However, after four years of writing this dissertation, it is important to emphasize that I gradually experienced varying degrees of concentration between the parallel paths of theory and practice. In order to define the evolution of these paths alongside one another, it is honest to state that the artworks resulting from this research consist of conceptual exercises that are shorter in duration than what is customary in my other projects. This has been a deliberate choice that enabled a wider and more thorough theoretical development. Generally speaking, reading a philosophical or critical text was more time-consuming than devising an art installation. This may be due to a more extensive experience of filmmaking and knowledge of film history than of philosophy and cultural analysis.

However, the degrees of intensity entailed by the two processes cannot be compared. In academia, one follows the timeline of extensive analysis and careful writing, while artworks emerge from bursts of energetic dedication where creativity flows from the experimental use of the medium.

Every artist has an autonomous practice, and, consequently, there cannot be one standardized methodological approach to a PhD in artistic research that could subsequently be applied to future artistic researchers. Even though the two are independent from one another, both the present textual production and the art pieces produced through my artistic research project should be regarded as one single and consistent, meaning-producing whole. In other words, this project combines specific modes of knowledge formation in the academic discourse and in artistic production, which I have considered productive for analyzing the contemporary condition of the individual in a world in which surveillance and cinema contribute to a cinematic mode of existence. The outcome of my experimental artistic research intends to further increase the possibility of choice for other investigative incursions in the arts by deepening theoretical as well as material practices that suit and respect each artist's needs and aspirations.

Being now at the conclusion of my personal practice-based research, I find the results both in writing and in filmmaking quite surprising. Throughout the process, there was, as mentioned earlier, a degree of experimentation in both components. The two parallel methods I developed have stimulated further experiments. Moreover, the theoretical component of my research has provided me with insights into film philosophy that I probably would not have come across had I not embarked on this PhD. This happened through contact with eminent scholars who have offered me the guidance and opportunity to engage with texts and other works previously unknown to me. These circumstances were of immense value to my work as an artist concerned with broadening my knowledge of contemporary social issues that accompany life in the cinematic city. Such rich background knowledge enabled me to consider my work, and its potential political stance, from constantly emerging and shifting perspectives. These have influenced the directions my work was to follow and clarified the implications of particular steps I had taken intuitively in the past. As an example of the mutual inspiration between both paths, I would like to relate an anecdote: as I was observing a 3D webcam stream at my studio, the Internet became

unstable. The screen filled up with unexpected and aesthetically beautiful errors, which I found so captivating that I decided to make use of them. At that very moment, *Realtime Ellipsis* was brought to life as an art project, and my fascination with the specific temporality that caused these unexpected aesthetics was conceived.

Everything considered I am now able to affirm that this intense four-year artistic research has been an enriching experience. By wandering through uncharted territory with a creative attitude, I found tools to approach theoretical entanglements. In the process I also discovered medium-specific affordances that in turn provided me with new filmmaking material. At this point, I look forward to discovering where the next project will lead me.

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by Paula Albuquerque

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Summary

The Webcam as an Emerging Cinematic Medium

At the age of four I had the impression I was constantly being filmed. It felt almost like intuitive knowledge. I believed that in the future, when I would be very old, the uncut rushes would be played back to me. This was the inception of my awareness that I was living in an increasingly cinematic world.

The present dissertation results from an art project in which I use webcam footage to make experimental films and installations. I explore a networked form of filmmaking that contributes to the doubling of its subject by constantly archiving audiovisual documentation of city life. I consider the main reason for the intense dissemination and pervasiveness of this cinematic medium, primarily intended for surveillance, to be the affect generated by the relation people have to the cameras.

There is no *outside* to the city's cinematic realm, as the networked cameras form a closed circuit in which everyone is either pointing a webcam at the streets, observing its streams, being filmed by it, or engaging in all these activities simultaneously. I am part of this process.

Artistic Research

When I began the present doctoral program in artistic research, I decided to establish a relation between surveillance and cinematography to find the webcams' specificity as film medium. In keeping a balanced ratio between theory and artistic practice, I consciously avoided explaining my artwork through a theoretical discourse. When providing information about the experimental films and installations I make with this footage, I restricted the writing to a description of the elements constitutive of a specific artwork to unveil *how* the project was developed, rather than *why*. In addition, I consciously steered away from using my own artworks to illustrate the theory I was writing. The relation between the two research components is thus based on interweaving text and art in a mutually supportive yet methodologically independent process, respecting a guiding premise that artistic processes differ from scientific ones and thus deserve autonomous approaches. With this hybrid methodology, I demonstrate how webcams become a cinematic medium.

The cinematic, as I conceive of it, takes place beyond the film set

and the movie theatre. It is an urban condition that affects people through the multitude of cameras and screens that surround them, but also exists independently of the presence of any filmic equipment. This is a situation that the webcams, with their twenty-four seven audiovisual generation, have actively contributed to.

In the introduction to my dissertation, relying on Bruno Latour's theories about *modes of existence* and tool usage, I identify the way in which urbanity is shaped and adjusted according to the potential presence of video surveillance tools.

In the first chapter of my dissertation, "Video Surveillance versus the Affected Personal Cam," I differentiate between types of surveillance-oriented cameras and the degree to which they generate and convey affect. The level of the owners' attachment to their webcams determines the intensity of affect being generated. Affect is transferred through the process of production and dissemination of imagery from the owner to the viewer, the person who is observed, the appropriating artist, and the public experiencing the artworks made with such footage. An affective meta-level pervades all these stages, which is inherent to the body of the camera. This affective dimensionality is medium-specific and extends far beyond the surveillance purposes generally considered the main reason for the existence of these cameras.

In the second chapter, "Post-Panopticism and the Attention Economy," I emphasize how surveillance and panopticism have been developing hand in hand, ever since Jeremy Bentham devised the architectural device of the Panopticon in the late eighteenth century. With the incorporation of panoptic supervision principles, the contemporary city has been transformed into a three-dimensional film set for the production of online content that may get archived and thus becomes a production site similar to the factory, the school, or the prison. The increasing presence of video-surveillance and growing camera awareness reinforces self-regulation as a preemptive measure, in accordance with Michel Foucault's definition of panopticism, which affects the construction of identities entailed in processes of subjectification. In the cinematic mode of existence, cities have become laboratories for experiments in social environments, simultaneously influencing routines of public life in the present moment and shaping the future image of the urban space.

In the third chapter, "From Cinematographic to Cinematic Apparatus," I analyze the traditional cinematographic apparatus

conceptualized by Jean-Louis Baudry to delineate, by comparison, the webcams' potential as contemporary cinematic media. My aim has been to demystify the *aura* of objectivity of these cameras by emphasizing the influence they have on the events they film, which affects the future interpretation of these same events, due to their technical abilities. By appropriating this footage in the making of film objects, I expose the visuality that is produced in this process as the result of a premeditated *mise-en-scène* that frames urban locations. This *mise-en-scène* translates a condition of contemporary urbanity that at times or even simultaneously transforms people into camera operators, film directors, actors, and spectators.

In the fourth chapter, entitled "Cinematic Chronotopes: Temporality of the Cinematic Mode of Existence of the Webcams," I analyze aspects pertaining to the specific temporality of webcams and introduce the term *realtime* to define it. This term comprehends the real time of the single shot in traditional cinema, but also that of its data transmission over the Internet. The example mentioned in this chapter, my installation *Realtime Ellipsis*, involves a situation in which the erratic time of the transmission provoked an aesthetic repercussion that can be observed in the actual footage I captured. This expression of time that cinematically affects the perception of space composes narrative units I identify as cinematic chronotopes that are streamed to viewers and can be adjusted according to what may be considered a suitable frame.

The fifth chapter, "Webcams and the Archive," identifies the digital archival of audiovisual documentation produced by webcams. Even if it is difficult to prove whether these cameras have their streams recorded, the biggest challenge that digital archivists face at present is the storage and maintenance of vast amounts of constantly generated personal data. The information being stored as code in data centers includes hard and metadata that profile individuals and track their activities in virtual space. Artists are aware of the programmability of future flows that is implied in the storage of memory as code. They take the opportunity to use the technical potential of this medium to construct alternative forms of historicity. Artists and designers position themselves in relation to this medium with a growing focus on the documentary content but also the aesthetics. For example, fashion designers focus on the voluntary invisibility of the human figure by means of makeup and clothing that confuse visual tracking systems, thereby altering the

intended result of total visibility.

In the sixth and last chapter, “Appropriation and Precarious Aesthetics,” I study the appropriation of low-resolution imagery and the political potential of making art with precarious materials as seen in the work of Hito Steyerl, Harun Farocki, and Walid Raad. Even though the three artists have different approaches and methods, all the films or installations I analyze are made, at least partly, with archive footage. By working with imagery that stands in the shadows of standard quality audiovisuality (and therefore considered less important), the artists draw attention to medium-specific aesthetics embedding political potential. By exposing the apparatus, they thereby contextualize audiovisual production and the impact on subjectification.

As a connecting thread running through all six chapters, I delineate the paradigmatic way in which several Latourian actants engage with one another to produce and maintain a contemporary cinematic mode of existence. These are the affected personal cams but also surveillance cameras in general, the principles of panopticism, the cinematic apparatus, the chronotopes, the digital archive, and the artists. The cinematic mode of existence of the city produces a double that differs from the original due to intervening film technology, webcam temporality, and archival conditions as well as people’s awareness of webcams and adaptation to their new roles. This results in *the city of the future*, since most of the data-based fragments dormant in the archives will only be analyzed and given meaning in years to come.

During this research my guiding intention as an artist has been to understand how to use a medium that is simultaneously an oppressive means of control and a filming device with aesthetic potential. The implications of this dual role of video surveillance, to which the networked character of the webcams and the possibility of *eternal* archival has been added, provide artists with the opportunity to create cinematic objects that will influence the future interpretation of images that are constantly being produced.

Samenvatting

De Webcam als een Opkomend Cinematisch Medium

Toen ik vier jaar oud was had ik de indruk constant gefilmd te worden. Dit voelde bijna als een intuïtieve kennis. Ik geloofde dat in de toekomst, wanneer ik heel oud zou zijn, de ongemonteerde *rushes* voor mij terug gespeeld zouden worden. Dit was het begin van het bewustzijn dat ik in een toenemend cinematografische wereld leefde.

De huidige dissertatie is het resultaat van een kunstproject waarin ik beeldmateriaal afkomstig van webcams gebruik voor het maken van experimentele films en installaties. Ik verken een genetwerkte vorm van filmmaken die leidt tot de verdubbeling van zijn subject door de constante archivering van audiovisuele documentatie van het stedelijk leven. De voornaamste reden voor de intensieve disseminatie en doordringendheid van dit cinematografisch medium, voornamelijk bedoeld voor beveiliging, wijt ik aan een door de relatie tussen mens en camera gegenereerd *affect*.

Er bestaat geen *buiten* in het cinematografische gebied van de stad. Dit komt doordat de genetwerkte camera's een gesloten circuit vormen waarin men ofwel een webcam op de straat richt, zijn *stream* observeert, erdoor gefilmd wordt, of zich bezig houdt met al deze activiteiten tegelijk. Ik maak onderdeel uit van dit proces.

Artistic Research

Toen ik het huidige doctoraal programma in Artistic Research begon, besloot ik een relatie te leggen tussen beveiliging en cinematografie om het specifieke karakter van de webcam als filmisch medium te vinden. Om een gebalanceerde ratio tussen theorie en kunst praktijk te behouden, heb ik bewust vermeden via een theoretisch discours mijn werk als kunstenaar te duiden. Wanneer ik informatie geef over de experimentele films en installaties die ik met dit beeldmateriaal maak, heb ik mij beperkt tot het benoemen van de individuele onderdelen van een specifiek kunstwerk om uit te leggen hoe een project zich heeft ontwikkeld, in plaats van uit te leggen waarom. Bovendien heb ik bewust vermeden mijn eigen kunstwerken als illustratie te gebruiken voor de theorie die zich in mijn dissertatietekst ontvouwt. De relatie tussen de twee onderzoekscomponenten is daardoor gebaseerd op het verweven van tekst en kunst in een elkaar wederkerig ondersteunend doch methodologisch onafhankelijk proces. Volgens deze aanpak wordt het

onderscheid tussen artistieke en wetenschappelijke processen gerespecteerd en behouden de artistieke en theoretische processen hun autonomie. Door middel van deze hybride methodologie demonstreer ik hoe de webcam een cinematisch medium wordt.

Het cinematische bevindt zich wat mij betreft voorbij filmset en bioscoop. Het is een stedelijke conditie die, door de hoeveelheid van camera's en beeldschermen die hun omringen, invloed uitoefent op de mens. Daarbij bestaat het ook los van de aanwezigheid van filmmapparatuur. Dit is een situatie waaraan webcams, met hun continue registratie, actief hebben bijgedragen.

In de introductie van mijn dissertatie identificeer ik de manier waarop stedelijkheid is gevormd en aangepast door de potentiële aanwezigheid van videobeveiligingsapparatuur, voortbouwend op Bruno Latours theorieën over *modes of existence* en het gebruik van gereedschap.

In het eerste hoofdstuk van mijn dissertatie, met de titel "Video Surveillance versus the Affected Personal Cam," maak ik een onderscheid tussen verschillende types van beveiligingscamera's en tot op welke hoogte deze *affect* genereren en overdragen. De mate van gehechtheid van de eigenaren aan hun webcams stelt de intensiteit van het gegenereerde affect vast. Affect wordt overgedragen door het proces van productie en verspreiding van beelden van de eigenaar naar de kijker toe; de geobserveerde persoon, de zich toe-eigenende kunstenaar, en het publiek dat kunstwerken gemaakt met dergelijk beeldmateriaal ervaart. Een *affectief* metaniveau, dat inherent is aan het lichaam van de camera, doordringt al deze stadia. Deze affectieve dimensie is dan ook mediumspecifiek en reikt ver voorbij het doel van beveiliging dat wij in principe als de voornaamste bestaansreden van deze camera's beschouwen.

In het tweede hoofdstuk, "Post-Panopticism and the Attention Economy," benadruk ik hoe beveiliging en panopticisme zich hand in hand hebben ontwikkeld, vanaf het moment waarop Jeremy Bentham eind achttiende eeuw het architectonische model van de *Panopticon* ontwikkelde. Door de toevoeging van panoptische principes voor supervisie is de hedendaagse stad getransformeerd in een driedimensionale filmset ten behoeve van de productie van (mogelijk gearchiveerde) *online* inhoud. Daardoor wordt de stad een productielocatie vergelijkbaar met de fabriek, de school, of de gevangenis. De toenemende aanwezigheid van videobeveiliging en het groeiende camerabewustzijn versterkt zelfregulatie als preventieve

maatregel. Dit sluit aan bij Michel Foucaults definitie van *panopticisme*, waarin de constructie van identiteit beïnvloed wordt door, en verbonden is met, processen van subjectivering. In de cinematografische *mode of existence* zijn steden laboratoria geworden voor experimenten in sociale omgevingen, die routines van het huidige publieke leven beïnvloeden en tegelijkertijd het toekomstbeeld van de stedelijke ruimte vormen.

In het derde hoofdstuk, “From Cinematographic to Cinematic Apparatus,” analyseer ik het traditionele cinematografische apparaat geconceptualiseerd door Jean-Louis Baudry, om door middel van vergelijking, het potentieel van de webcams als hedendaagse cinematografische media te omlijnen. Het is mijn doel geweest om de aura van objectiviteit van deze camera’s te demystificeren door te benadrukken welke invloed ze hebben op gefilmd gebeurtenissen, en hoe ze door hun technische mogelijkheden tevens de toekomstige interpretatie van dezelfde gebeurtenissen bepalen. Door het toe-eigenen van dit beeldmateriaal voor mijn films, laat ik zien hoe het visuele materiaal dat in dit proces geproduceerd wordt een resultaat is van een voorbedachte mise-en-scène die de stedelijke locaties omkadert. Deze mise-en-scène vertaalt een conditie van de hedendaagse urbaniteit die (mogelijk gelijktijdig) mensen transformeert tot cameramannen, filmregisseurs, acteurs en toeschouwers.

In het vierde hoofdstuk, getiteld “Cinematic Chronotopes: Temporality of the Cinematic Mode of Existence of the Webcams,” analyseer ik eigenschappen die behoren tot de specifieke temporaliteit van webcams en introduceer ik de term *realtime* ter definitie hiervan. Deze term bevat de *real time* van de *single shot* in de traditionele film, maar ook die van zijn datatransmissie over het internet. Het voorbeeld dat in dit hoofdstuk gebruikt wordt, mijn installatie *Realtime Ellipsis*, bevat een situatie waarbij de grillige transmissie een esthetische repercussie uitlokt die zichtbaar is in het beeldmateriaal dat ik registreer. Deze uitdrukking van tijd, die de waarneming van de cinematografische ruimte beïnvloedt, creëert narratieve eenheden die ik identificeer als cinematografische chronotopen. Deze kunnen naar kijkers worden *gestreamd* en aangepast naar wat men een geschikt kader vindt.

Het vijfde hoofdstuk, “Webcams and the Archive,” analyseert het digitale archiveren van audiovisuele documentatie geproduceerd door webcams. Zelfs als het moeilijk is te bewijzen of *streams* van deze camera’s opgeslagen worden, blijkt dat de grootste uitdaging die digitale

archivisten tegenwoordig ondervinden de opslag en het onderhoud van grote hoeveelheden continu gegenereerde persoonlijke data. De informatie opgeslagen als code in *data centers* bevat hard- en meta-data die individuen profileren en hun activiteiten in de virtuele ruimte volgen. Kunstenaars zijn zich bewust van de mogelijkheid van het programmeren van toekomstige *flows* die deze opslag van geheugen als code impliceert. Ze maken gebruik van de gelegenheid om het technisch potentieel van dit medium te gebruiken om alternatieve vormen van historiciteit te construeren. Kunstenaars en ontwerpers positioneren zichzelf in relatie tot dit medium met een groeiende focus op de documentaire inhoud maar ook op de esthetiek hiervan. Modeontwerpers concentreren zich bijvoorbeeld op het opzettelijk verstoren van de totale zichtbaarheid van de menselijke figuur door een speciale toepassing van make-up en kleding die visuele *tracking* systemen verwart.

In het zesde en laatste hoofdstuk, "Appropriation and Precarious Aesthetics," bestudeer ik de toe-eigening van afbeeldingen met lage resolutie en het politiek potentieel van kunstwerken gemaakt met precair beeldmateriaal, zoals te zien is in het werk van Hito Steyerl, Harun Farocki en Walid Raad. Ook al hebben de drie kunstenaars een verschillende aanpak en methode, alle films en installaties die ik hier analyseer zijn (minstens gedeeltelijk) met archiefmateriaal gemaakt. Door te werken met beeldmateriaal dat niet voldoet aan de standaard audiovisuele kwaliteit, benadrukt de kunstenaar een mediumspectifieke esthetiek die (omdat het als minder gezaghebbend wordt gezien) een politiek potentieel heeft. Door het blootleggen van dit apparaat contextualiseren deze kunstenaars de audiovisuele productie en haar invloed op een proces van subjectivering. Als rode draad door de zes hoofdstukken loopt de paradigmatische manier waarop verschillende Latouriaanse *actants* samen een hedendaagse cinematografische *mode of existence* produceren en in stand houden. Dit zijn de *affected personal cams* maar ook beveiligingscamera's in het algemeen, de principes van het panopticisme, het cinematografische apparaat, de chronotoop, het digitale archief en de kunstenaar. De cinematografische mode of existence van de stad produceert een verdubbeling die verschilt van het origineel door de tussenkomende filmtechnologie, de specifiek temporaliteit van webcams, de condities van het archiveren in combinatie met het bewustzijn van de webcam, en de aanpassing van de mens aan zijn nieuwe rol. Dit maakt het *de stad van de toekomst* omdat het merendeel van de datafragmenten slapend in de archieven pas

geanalyseerd zullen worden in komende jaren. Gedurende dit onderzoek is het mijn voornaamste doel als kunstenaar geweest om te begrijpen hoe ik gebruik kan maken van een medium dat tegelijkertijd een onderdrukkend middel van controle en én een filmmappaaraat met esthetisch potentieel is. De implicaties van deze dubbele rol van videobeveiliging, waaraan het genetwerkte karakter van de webcams en de mogelijkheid van eindeloze archivering zijn toegevoegd, voorzien kunstenaars van de mogelijkheid om cinematografische objecten te creëren die de toekomstige interpretatie van al de continu geproduceerde beelden zullen beïnvloeden.

Appendix Exhibition Plan

cinematic mode of existence

(working title), Stedelijk Museum Bureau
Amsterdam

January 13, 2016 – Visit by the Evaluation
Committee

January 15, 2016 – Opening

January 17, 2016 – Salon

I have conceived this plan together with my
artistic adviser, Antonis Pittas, to provide
insight into the processes involved in my
practice-based research.

A selection of six works made in the last four
years and some research material will be
presented in the space of the exhibition:

Entrance – Right Wall – Short text on the wall
with information about the research; against
the same wall there is a table with the
dissertation publications.

1 End of the corridor on the right – A small
monitor placed directly on the floor displays
fragments of visual research materials.

2 In black box one is the project *Bird's Eye
View* (2013) as live stream, projected above
normal height. There is nothing else in the
space besides the projection.

3 In black box two is a standard projection of
Portraying A'dam – Chapter 3 (2014). There
is a small bench available for people to
watch the film.

4 When entering the main exhibition space,
one can see the installation *Realtime Ellipsis*
(2012) on the right hand side. There is a
Wallscreen placed diagonally in the space
with a projection on the back of this wall
(forcing the viewer to walk around it in order
to experience the visuals).

5 Also on the right but opposite the above-
mentioned installation is a small (circa one
meter wide) projection of *PAN* (2013). There
is a seat to give visitors the opportunity to
engage with the narrative development of
this piece.

6 In the center of the wall opposite the
entrance stands the installation *OnScreen
Débris* (2014). This consists of two large
flat monitors (diagonal measure: circa one
meter) and one smaller (diagonal measure:
circa 50 cm).

7 On the left wall there is a projection of four
by three meters of *Unfinished Narratives # 41*
(2013-2016). List of films and installations in
the floor plan

floor plan

< This symbol is used to show the direction of the projection (video projector at the intersection).

From the Dutch

Tekst – Text

Boeken – Books

Bank – Bench

list of films and installations in the floor plan

1 As mentioned before this corresponds to the first monitor that is encountered in the space, which displays audiovisual fragments that have been used during the research but have not yet been worked into art pieces.

2 Bird's Eye View

Live Webcam Stream – Amsterdam 2013

Film version Exhibited at DeFKa Campis, Assen – 2013.

This camera is mentioned on section 1.2.2 A Camera of Affects.

3 Portraying A'dam

Webcam / Screen Capture – 4' 08" – Amsterdam 2014

Exhibited at Bradwolff Projects, Amsterdam – 2015.

Competition Selection – Alternative Film and Video Festival Belgrade – 2014.

FUSO Videoart Biennial, Lisbon – 2014.

"Portraying A'dam" consists of a documentary approach to portraying the city of Amsterdam. This work exclusively uses publicly accessible Webcams that were available online on the 4th of October 2013. The film is originally composed by three chapters of which only the third is shown at present. Entitled "Face to Ground," it focuses on the extreme ability the cameras possess to disclose identifiable facial features, while also covering a vast amount of detail, including chewing gum on the sidewalk.

4 Realtime Ellipsis

Video Installation

Webcam / Screen Capture – 1’ 35” –
Amsterdam 2012

Film version exhibited at MIT8 Conference
Lounge, Boston – 2013.

Exhibited as installation at DeFKa Campis,
Assen – 2013.

This artwork is mentioned in section 4.3.2
Network Time and Realtime.

5 PAN

Video Installation

Webcam / Screen Capture – 3’ 22” –
Amsterdam 2013

Exhibited as Installation at DeFKa Campis,
Assen – 2013.

This film is mentioned in section 3.1.1.1
Cinematography.

6 OnScreen Débris

Boston April 2013

Webcam / Screen Capture – 5' 24" –
Amsterdam 2014

Installation exhibited at Bradwolff Projects,
Amsterdam – 2015.

This installation is mentioned in section 6.1 On
Appropriation.

7 Unfinished Narratives # 41

Webcam / Screen Capture – 3' 55" loop –
Amsterdam 2013-2016

This film piece is mentioned in section 5.5 The
Database Logic of New Media Objects.

Besides the information already present
throughout the dissertation, there is more
documentation of my work and of previous
presentations on my website:

www.paulaalbuquerque.org

— the webcam as an emerging cinematic medium

This study results from an art project in which I use webcam footage to make experimental films and installations. Through an artistic research process I explore a networked form of filmmaking that contributes to the doubling of its subject by constantly archiving audiovisual documentation of city life.

As a connecting thread running through the six chapters of this dissertation, I delineate the paradigmatic way in which several actants engage with one another to produce and maintain a contemporary cinematic mode of existence. These are what I call *affected personal cams* but also surveillance cameras in general, the principles of panopticism, the cinematic apparatus, the chronotopes, the digital archive, and the artists appropriating such materials.

During this research my guiding intention as an artist has been to understand how to use a medium that is simultaneously an oppressive means of control and a filming device with aesthetic potential. The implications of this dual role of video surveillance, to which the networked character of the webcams and the possibility of *eternal* archival have been added, provide artists with the opportunity to create cinematic objects and influence the future interpretation of images that are constantly being produced.

— biography

Paula Albuquerque holds a BFA in Audiovisual Art from the Gerrit Rietveld Academy and an MFA in Video and Film from the Sandberg Institute. She has taught Film History and Theory at the SAE Institute Amsterdam and is currently tutor of the ART and RESEARCH Honours Programme, Gerrit Rietveld Academy and University of Amsterdam. She is presently Dutch delegate of the international Cinema and Moving Image Research Assembly and Artistic Adviser at the Amsterdams Fonds voor de Kunst.

Her publications include articles in *Necrus: European Journal of Media Studies*, the catalogue for the Sorbonne Conference on Cinema and the Revolution and the forthcoming MIT Media Studies Conference Series book. She gave talks and guest lectures at Pratt Institute in New York, the Masters of Filmmaking at the Dutch Film and Television Academy and the Sandberg Institute in Amsterdam.

Albuquerque's artwork has been shown at i.e. Stedelijk Museum Bureau Amsterdam, Gallery Bradwolt Projects in Amsterdam, DeFKA Campis Assen Contemporary Art Museum, Netherlands Media Art Institute, Boijmans van Beuningen Museum Rotterdam, Venice Biennale Rietveld Arsenale, Organhaus Art Space Chongqing, São Paulo Art Museum, Beijing Today Art Museum, Calouste Gulbenkian Foundation in Lisbon and Paris.