

DOCUMENTARY IN Z SPACE

By

Alan Goldman

Bachelor of Arts, University British Columbia, 1988

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## **Abstract**

My thesis is an attempt to determine whether 3D is a useful story telling technique for documentary filmmakers. As part of the discussion I look at the utilization of 3D in relation to the spectator's experience. In the text I endeavor to determine what embodied knowledge 2D documentary practitioners incorporate during the process of producing a 3D documentary. Primarily my practice has been in the directing, writing and producing of documentary films. In the thesis I provide a rationale for temporarily departing from the capture of moving images. As well, I explore the choice of using a stereoscopic digital still camera as a means of conducting the research.

In essence the research exposes how my documentary methods codified in two dimensions translate into 3D. The objective of the research is to provide filmmakers with new information, which will allow them to comprehend the potential positive and negative boundaries of 3D creation. During the research I determine how the process of capturing 3D images changes the discourse that the filmmaker has with the viewer. I scrutinize how 3D changes the documentary director's agency and lessens the authorial relationship that we have with our audience. In the thesis I converse about how 3D has altered my practice as an autobiographical filmmaker and situate my production in relation to documentary theory. I also contrast my own practice in relation to that of other autobiographical documentarians.

I elucidate how 3D is ultimately a process of reinvention for filmmakers and a new way of perception for viewers. In addition, I explore the interrelationship between movement and objects intra-frame and the consequences for documentary makers and audiences. In conclusion, I examine the relationship between the body, camera and viewer to the Z space of the stereoscopic image and explore how the recent video installation in the Charles H. Scott gallery has materially affected my research and production.

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## Who The Jew Are You?

The autobiographical film *Who The Jew Are You?* is a fifty-minute documentary that explores my cultural and religious journey to discover the essence of what being Jewish means to me. The film was thoughtfully assessed by colleagues upon its 2009 release; exemplified by the following quote from Mark Achbar the producer of *The Corporation* and *Manufacturing Consent*. “You've made a courageous, honest film which engagingly explores a topic of great relevance to a broad demographic, namely, people who identify with, or who have chosen to dis-identify with, any cultural or religious group” (Achbar). I was pleased with the response that the film received from audiences and colleagues. Yet, I was not completely satisfied with my approach and was concerned with issues such as objective truth. Specifically my video dairies and voiceovers produced on location and in editing illustrated this. These elements were constructed with the assistance of a cameraman and editor. Author Jim Lane, who has contributed one of the few academic books on the subject of autobiographical film, writes about how filmmakers create truth. “Often no public record exists to verify events recorded in the works. Because autobiographical documentaries present events that may be difficult to verify, veracity is contingent. Their contingent state forms the discursive base from which documentarists generate autobiographies” (Lane 4). Lane is suggesting that audiences can take it on faith that the truth of the protagonist of an autobiographical documentary can be verified. Nevertheless, as an author of autobiographical films, my belief is that trust can be breached if the filmmaker cannot distinguish between objective truth and the edifice of their truth. As a consequence, the expansion of the autobiographical filmmaker’s truth is

sacrificed for the sake of the entirety of the narrative. My next project *My Dinner With Israel* thus became an attempt to expand and contextualize issues of performance, agency, representation and reflexivity in my work in relation to my Masters of Applied Art.

This thesis document specifically focuses on situating my production within documentary theory, providing an account of my primary set of experiments with autobiographical film and the video camera. I continue with an evaluation of the knowledge gained while conducting a secondary set of production experiments with a 3D still camera drawing direct links between my current and previous practice. This discourse begins with an explanation of my decision to produce work in 3D, the history of 3D, its rebirth, why some critics despise 3D's employ and its recent use by documentarians.

### Near and Far

My initial introduction to 3D was through the viewing of Michael Verity's, (an artist in residence at Emily Carr) still images. The depth perception of each image was altered, creating a heightened sense of immersion. Verity's images captured the architecture and landscape in a unique way. His photographs told a compelling visual story. The images lead the eye through the space and examined the depth relationships between the buildings and the environment.

Similar to Verity my practice focuses on story. However, in contrast to Verity's it is

firmly entrenched in the traditions of documentary narrative. The visual aesthetic of filmmaking has largely been a secondary priority. I have had very little direct experience with capture technology. My knowledge of cameras has been largely gleaned while working with other technicians in the field. So when Verity introduced me to an automatic 3D still camera it was truly inspiring. The proposition of taking photographs instead of utilizing the moving image would alter my relationship with the camera from then on. I feared that my lack of embodied knowledge in the actual manufacture of images would be a limiting factor in my 3D production. However, at that moment, I believed that employing this method could serve a number of purposes including being able to learn how to independently produce, process and view my 3D images. As well, it would allow me to create imagery without 3D knowledge or theory. My goal with the experimentation was to apply the acquired information to my own documentary production.

My research embarked on exploring how 3D changes the relationship between the viewer and the subject through depth perception. There is evidence that the eye wanders more over a stereoscopic image. Does 3D displace the viewer, becoming more of a distraction than an enticement? How can the relationship between subjects and objects inside of the frame be altered or accentuated in 3D? My photographic experiments were informed by the cinematic conventions used to create intimacy, emotion and meaning while working in 3D.

The art project that I installed in the Charles H. Scott gallery for the graduate show in early May 2011, is a continuation of my research. Utilizing a stereoscopic 3D video camera, I documented Michael Verity's return to Fogo, an outport town on Fogo Island; a community he inhabited for three and a half years as a child between the ages of five and eight. The goal of the production is to seek answers to some of the inquiries made during the production of my 3D stills. For example, I analyzed the visual distraction created by the movement of subjects in connection to objects in the screen plane.

My decision to make this shift into the third dimension is partially influenced by Freud's story of "Near ('Fort') and Far ('Da')". In his book *Beyond The Pleasure Principle* he wrote about a young boy who plays a game with a toy and a piece of string.

The child had a wooden reel with a piece of string tied round it. It never occurred to him to pull it along the floor behind him, for instance, and play at it's being a carriage. What he did was to hold the reel by the string and very skillfully throw it over the edge of his curtained cot, so that it disappeared into it [sic], at the same time uttering his expressive 'o-o-o-o'. He then pulled the reel out of the cot again by the string and hailed its reappearance with a joyful 'da'. (Freud 14)

Freud's interprets the story through his psychoanalytical prism:

The interpretation of the game then became obvious. It was related to the child's great cultural achievement the instinctual renunciation (that is, the renunciation of

instinctual satisfaction) that he had made in allowing his mother to go away without protesting. He compensated himself for this, as it were, by himself staging the disappearance and return of the objects within his reach. (Freud 14)

The last sentence of Freud's quotation is a corollary for my work in 3D. Ultimately the experiments are an attempt to better comprehend my work in relation to the visual screen plane. I am not rejecting my autobiographical work only making it temporarily disappear, understanding my relationship to it with a reinvigorated perspective before bringing it back into view. 3D is advancing the boundaries for film practitioners whether they are working experimentally or in traditional narrative genres. The technological advent of digital 3D is arguably akin to the introduction of sound in the late 1920's. However, contemporary filmmakers have only begun to invest effort in the 3D medium. Therefore, they will have to envision telling their narrative or non-narratives by completely different means. These stories could be nearer to the viewer, further detailed and more immersive and visceral. In 3D documentary this can be achieved by accentuating the relationship between the viewer's perception of the depth cues and the essence of the objects that exist in the perceived space.

Gee it's 3D!

3D has historically been part of the common parlance of cineastes, film theorists and critics. However, the recent plethora of animated feature films has predicated that live action filmmakers adopt the idiom *S3D*, more traditionally used by scientists, technicians

and academics. The ‘S’ in S3D stands for stereoscopic. The word *stereo* comes from the Greek word *stereos* meaning firm or solid. In stereo, an individual can see an object as a solid, in the three spatial dimensions—width, height and depth—known as Cartesian space (*René Descartes*) and more commonly by their acronyms or ‘x’, ‘y’ and ‘z’ axis. Stereoscopy, or stereoscopic imagery, exploits the illusion of depth to make objects appear to be in front of or behind the cinema screen. Autodesk, a manufacturer of 3D engineering and design software, recently produced a white paper detailing the technical and creative considerations filmmakers confront when making compelling stereoscopic movies “Subtle right-left dissimilarities in the images create the perception of depth and can be manipulated to creative advantage. Therein lies the art of stereoscopic filmmaking” (Autodesk 1). Artists and film directors are only now getting the opportunity to experiment with the 3D filmmaking tools that have been created. The object of 3D cinematography may inevitably be to create full and immersive video that changes the relationship between space and time. However, because an insufficient amount of 3D experimentation has taken place, the production of 3D film and art production is still an expansive space.

There has been a plethora of literature written on how 3D works from a scientific and technical perspective. Nonetheless, very little has been written methodologically on the creation of 3D films. Bernard Mendiburu’s recent book *3D Moving Making, Stereoscopic Digital Cinema from Script to Screen* is one of the few exceptions. In the book’s initial chapters, he states that cinematic production processes in 3D are modeled on natural human vision. Mendiburu continues by saying that 3D film merely mimics the illusion

that our mind actively produces when it observes the biological world. Each of our eyes has its own field of view and captures images separately. Our brain takes the two separate images and processes them. When the two images arrive simultaneously at the visual cortex, the images are amalgamated into one picture, a three-dimensional 'stereo' picture. Mendiburu explains the difference between how our brain perceives images stereoscopically and monoscopically. "Monoscopic depth cues can be extracted from a single view, sometimes using some sort of time shift, although stereoscopic cues are built on the comparison between the two eyes points of view" (Mendiburu 12).

Authors such as Lenny Lipton have suggested that five to ten percent of the population cannot see stereo. However, Mendiburu says that the figure may be as high as fifteen percent. Yet, an early pioneer of 3D Julian Gunzberg recognized that viewers of 3D with limited depth perception still perceived the two dimensional image. Gunzberg was an ophthalmologist and technical consultant for many early 1950's 3D movies such as *Bwana Devil* and *House of Wax*. In his book *The Story of Natural Vision* he wrote that perhaps less than five percent of the population will be uncomfortable watching stereo pictures because of eye imperfections "aberrations in the focusing apparatus, abnormalities in fusion functions, imbalance between the eyes in refraction, image size, color balance, and of course pathological conditions" (Gunzberg 612).

During the recent renaissance, the North American film industry has invested heavily in 3D production regardless of the actual percentage of viewers who can distinguish the format. This was primarily due to its economic effect. It is estimated that on an opening

weekend, 3D generates three-times the revenue per screen of flat cinema. The subsequent reason for 3D's revival is technical innovation coupled with more cost efficient 3D production and post-production processes. "Today's 3D, riding on all-digital production pipelines, the benefits extend far beyond principal photography into postproduction and distribution" (Mendiburu 7).

3D's most recent revival is measured by the conventional media in terms of market share and consumption as evidenced by the following quote.

Over 20 million TV homes globally will be watching 3D TV within five years. Backed by key industry players, including set-top manufacturers, content owners, broadcasters, platforms and satellite operators, 3D TV is expected to be in 1.6% of all homes by 2015. North America will lead the way in terms of number of 3D TV homes with 9.2 million, Western Europe will be the second largest region with 6.8 million and Asia Pacific third with 4.6 million" (Informa Telecoms & Media 1).

3D channels and televisions have proliferated the consumer market. In spite of this, 3D content creators have not maintained the velocity at which 3D technology is being produced. Creators and broadcasters have focused on the capture of live event music concerts, *U23D* and sporting events *2010 World Cup of Soccer* with more traditional fictional and non-fictional narrative genres only beginning to be explored.



Critics such as Roger Ebert have greeted 3D's revitalization with skepticism and outright condemnation. In the article *Why I Hate 3-D (And You Should Too)* Ebert states that filmmakers who use 3D are wasting a dimension

When you look at a 2-D movie, it's already in 3-D as far as your mind is concerned.

When you see Lawrence of Arabia growing from a speck as he rides toward you across the desert, are you thinking, look how slowly he grows against the horizon?

Our minds use the principle of perspective to provide the third dimension. Adding one artificially can make the illusion less convincing. (Ebert 1)

David Lean, the director of *Lawrence of Arabia*, chose to exploit width and depth cues by working with a new film stock (*Super Panavision*) similarly to his colleagues experimenting in 3D. Alfred Hitchcock, (*Dial M For Murder*) and Jack Arnold (*The Creature From The Black Lagoon*) were theoretically trying to heighten reality and perception spatially. Ebert's claim that the third dimension is 'artificial' is spurious. 'Artifice' may better suit his means. Hypothetically, Ebert objects to the fact that he is being 'fooled' in 3D as if the medium was a visual sleight of hand performed by a mountebank. Ebert's cause has been taken up by others in the film industry, most notably Walter Murch (editor of *Apocalypse Now* and the author of influential editing texts such as *Blink of An Eye*) who in a letter to Mr. Ebert stated that when we watch 3D humans "are doing something that 600 million years of evolution never prepared them for" (Ebert 1). The argument of whether or not 3D is a viable medium of perception will be constantly debated.

3D's recent renaissance is a new means of perception and potentially could inform the artists and directors whether they create in three or two dimensions. However, new terms may have to be incorporated into the written and oral lexicon of cinema and order to facilitate 3D's revival. An examination of contemporary definitions for stereographer and cinematographer, the two individuals technically responsible for representing the visual look of feature films, illustrates this point. The term cinematography is from the Greek root meaning 'writing with motion'. "Filmmaking is shooting—but cinematography is more than the mere act of photography. It is the process of taking ideas, actions, emotional subtext, tone and all other forms of non-verbal communication and rendering them in visual terms" (Brown ix). In contrast the term stereographer whose "main function is the proper use of depth, includes everything from making sure there is no mismatch between the zoom ratios in twin lenses to measuring on-set depth levels" (Gargano 1). Deduced from these definitions is that the stereographer's function is evidently more about what you cannot do in 3D, which could be attributed to those in the film business being wary of the added production costs. I believe that it is important to focus on the potential of 3D, not its limiting factors. In the production of documentaries, I envision a symbiotic relationship between the stereographer and the filmmaker. Arguably both are needed to determine the potential visual limits and possibilities of 3D.

## In Stereo

The illusion of depth in traditional two-dimensional cinema has been an issue for filmmakers since the inauguration of film. Cinematographers have a specific term for the illusion of depth in photography known as ‘deep focus photography’: “A technique that exploits depth of field to render subjects near the camera lens and far away with equal clarity and permits the composition of the image in depth” (Cook 932). Many of the interior scenes in *Citizen Kane* were shot using deep focus to emphasize temporal, spatial and emotional relationships between actors. This was done with a combination of camera movement and rear projection, which exaggerated the depth of a scene and made characters seem very distant from one another.

However, the depth cues that the director Orson Welles and his cinematographer Gregg Toland helped to shape in two-dimensional cinema are formally different in three-dimensional films. It is a necessity for 2D filmmakers to cinematically calculate depth cues to give the viewer a profound sense of separation between subject and object. These same depth cues are tacitly present in the capture of 3D images. Yet, they can only be perceived when the images are projected. The allegory of Plato’s Cave potentially provides a useful illustration of this reality. It’s here that Plato posits his theory of forms. He asserts that ‘forms’ or ideas, and not the material world of change known to us through sensation, possess the highest and most fundamental kind of reality. Only knowledge of forms constitutes real knowledge. In his story, Plato imagines a group of people who have lived chained in a cave all of their lives, facing a blank wall. The people

watch shadows projected on the wall by things passing in front of a fire behind them, and begin to ascribe forms to these shadows. According to Plato, the shadows are the closest the prisoners will ever get to actually perceiving reality. Jack Purcell the author of the article *Plato's Theory of Film* states "So, Plato is not concerned that all imagery is bad, but again that one must have some means by which to adjudicate between the bad and the good image. But if one is to judge one image better than another, then, according to a traditional logic, one must discover a non-imagistic standard or paradigm that will legitimize the distinction between images" (Purcell 1). Plato's allegory represents most of his major philosophical assumptions including his belief that the world revealed by our senses is not reality, but merely a poor replica of it. Nonetheless, it is difficult to make Plato's allegory of the cave analogous to our contemporary world in which experientially viewers have been able to watch moving images projected on a screen for generations. However, what if those images could be viewed in 3D? What if the form of the screen could be changed from a projected image on a screen to moving images on a cave wall? Iowa State University has expanded on Plato's concept by creating a three-dimensional, fully immersive environment called C6. Akin to Plato's cave, the facility consists of a 10ft x 10ft x 10ft room where all four walls, the floor and the ceiling become projection screens capable of displaying stereoscopic images. Similarly to Plato's allegory the object of their experiment is to provide total immersive experience for the participants who enter the space.

"Plato loved his allegories. Werner Herzog not so much. But there seems to be a persistent paradox expressed throughout Herzog's career in that his boundless quest for

“pure, transparent imagery” results in work that begs allegorical consideration” (Segrest 16). It is difficult to assess whether 3D is an effective mechanism for documentary production due to the lack of this genre of films produced in the medium. However, Werner Herzog and Wim Wenders, known for their introspective, ethereal films, have recently ventured into the realm of 3D. Wenders 3D film is an homage to the late choreographer Pina Bausch. He believes that 3D will “revitalize the format” calling it “an ideal tool for documentary filmmakers” (Wenders 1). His decision to film in 3D was founded on his desire to focus on depth cues that he claims would not have adequately been articulated in two dimensions. Wenders states that the 3D production process differs from the ones utilized in the making of 2D films. “You have to forget everything you know about filmmaking. Because you have to organize the shots and the whole process in a very different way” (Wenders 1). Wenders’ statement is thought provoking. One has to carefully consider the embodied knowledge gathered by practicing their craft in two dimensions. Wenders is acknowledging that the creation of 3D differs from that of 2D and if documentary filmmakers employ 3D in their work they must be prepared for how it detracts or enhances their films.

However, surely Wenders is not stating that one has to abandon their existing proficiencies in order to make a 3D film. Social commentator Malcom Gladwell posited in his best selling novel *Outliers* that embodied knowledge comes from continually repeating a process. “Studies suggest that the key to success in any field has nothing to do with talent. It's simply practice, 10,000 hours of it — 20 hours a week for 10 years” (Gladwell 40). Must filmmakers make a lengthy study of 3D before being capable of

materially accomplishing anything in the format? Possibly Herzog can provide insight into the conundrum.

Herzog's documentary *Cave of Forgotten Dreams* is a 3D exploration of the Chauvet Caves in France, where our ancestors began creating art 32,000 years ago. However, he is skeptical about whether 3D is a useful tool for documentarians. "3D will always have one major problem, and that is when you look as a human being, normally only one-eye looks dominantly at things. The other eye is mostly ignored. And only in specific cases – if somebody approaches you – all of a sudden the brain starts to use both eyes for establishing depth of field and understanding space" (Herzog 1). However, Herzog's 3D experience may have been jaundiced by the difficult conditions in which he had to shoot (only allowed in the Chauvet Caves for four hours at a time) and that reportedly he only decided to film in 3D three weeks before starting production.

### The D-Word

Methodologically, a primary goal for my autobiographical documentary production is to differentiate the world from within the film and world of the viewer. Author Jim Lane calls this notion 'out there', saying "reference in these documentaries functions in a bifurcated flow in which the self and external historical events compete for representation" (Lane 32). Nevertheless, before engaging in a discussion regarding methods, I intend to locate my practice in relation to the history of documentary and the individuals who helped shape my work. Then I will contextualize my own

autobiographical documentary practice in relation to contemporary documentary theory in an attempt to draw a link between my previous practice and my work in 3D.

The word ‘documentary’ surfaced during a mid-1920’s conversation between the filmmaker Robert Flaherty and John Grierson, a Scottish social scientist interested in the psychology of propaganda. Critiquing an early version of Flaherty’s *Moana*, Grierson said he thought it was “documentary, in intention” (Rabiger 74). Yet, while no specific individual is accredited exclusively for authoring the term, Grierson himself had a simple definition for documentary; a film that takes “natural materials and reshapes them” (Nichols 20). A parallel is evident in my practice and in that of many contemporary documentarians. Our films are merely large collections of material reduced, reassembled and re-shaped by editing. Arguably this collection of material has a purpose that is conveyed during the process of editing.

Film theorists such as Bill Nichols have written ostensibly about documentaries stating they are a “representation of a world we already occupy. It stands for a particular view of the world, one we may never have encountered before even if the aspects of the world that is represented are familiar to us. We judge a re-production by its fidelity to the original—its capacity to look like, act like, and serve the same purposes as the original” (Nichols 20). Nichols’ quote indicates that in an ideal documentary there is a resemblance between the world depicted inside and outside the film. Influential filmmakers such as the Maysles brothers (*Grey Gardens*), D.A. Pennebaker and Chris Hegedus (*The War Room*) and Barbara Kopple (*Harlan County U.S.A.*) epitomize this principle. All three of these documentarians were significant components of the Direct

Cinema and Cinéma vérité movements of the 1960's and early 1970's. Their films were concerned with social and ethical questions, relying on the power of editing to give shape, structure and meaning to the material recorded. My mentors Robert Duncan and Les Rose also had 'a particular view of the world' influenced largely by Direct Cinema, Cinéma vérité and their training at the National Film Board of Canada. The Film Board in Montreal was fundamentally a film 'factory' in the late 1960's and early 1970's pairing young filmmakers with established documentarians. Both Duncan (*W.O. Mitchell: Novelist in Hiding*) and Rose (*Thunderbirds in China*) were disciples of Donald Brittain (*An Inquiry Into The Life and Death of Malcom Lowry*). Brittain's documentaries included a sense of social context, ironic detachment and black humor that were achieved through voice-over, which countered the images on the screen with Brittain's often extremely personal explanation of events. Brittain wrote and narrated over all his films using a "voice of god" inflection, a convention of early National Film Board of Canada documentaries. Brittain, Rose and Duncan utilized this technique as a signifier to create an omniscient perspective for the viewer.

At the beginning of my career, the NFB had become more of a funding provider rather than a trainer of talent. However, the ideals and techniques developed there continued to be embodied in independent Canadian documentary films. During this time, I assisted Duncan with the writing, researching and production of three of his films. All of the films had strong narrative lines. Yet, I now believe they pandered to television, which had become the main distribution vehicle for many documentary filmmakers. As a result, my first major documentary (*Glowing In The Dark*) made for television was largely



informed by the techniques and principles that I had learned while apprenticing with Duncan and Rose.

### My Own Work

Entry into the Emily Carr Masters Program was predicated on my desire to explore issues pertaining to performance, representation and reflexivity that had arisen while making *Who The Jew Are You?*, described earlier in this thesis. At Emily Carr, I began working on a new project that would critically examine the relationship between Diaspora Jews and Israel titled *My Dinner With Israel*. My belief was that altering the production methods would result in my first person character being more credible and less naïve than my character in *Who The Jew Are You?* In the movie I had taken on the persona of the fictional shetl character portrayed in Isaac Bashevis Singer's book *Gimpel The Fool*. In the story Gimpel states "I don't think of myself as a fool. On the contrary. But that's what folks call me" (Bashevis Singer). My desire, unlike Gimpel's, was to represent the subject matter in *My Dinner With Israel* with an equal amount of self-assuredness and candor. I developed a number of experiments in an effort to modify the production methods. The first investigation was an attempt to see if I could intellectually shift the discourse with my on-screen character. I would operate the camera revealing more of my process to the audience. This would be a distinct departure from my previous work, as materially I would become its only author. The experiment was an endeavor to question the works agency. The hypothesis was that my production method would create a more honest and intimate discussion by removing the cameraman or mediator. I offer the following illustration of my methods. One of the first scenes filmed was my attendance at

a meeting mounted by the Langara Students Against War and Occupation Society. I drove to the event, rigging the camera in the car, positioning it so that my face, shoulders and arms were captured in frame. The technique was predicated on securing a plethora of material to give the viewer a temporal sense of my journey; throughout I spoke about my anxieties, fears and emotions. Once on campus I re-positioned the camera on a monopod, turning it away to give the viewer a sense of my surroundings and then towards me to express my observations directly. Subjectively this experiment produced varied results. The lack of mediation did produce commentary that lacked intervening agency. On the other hand, my lack of familiarity with the camera was inhibiting as viewers had to watch me fumble with the camera, which was distracting and awkward.

I have gained a better appreciation for the dominance of the camera after being the subject of its gaze. The video camera cannot be considered anything less than the single most powerful device of mediation that we, in the electronic media, wield. In his influential essay *The Work of Art in The Age of Mechanical Reproduction*, Walter Benjamin questions the role of the camera in the creation of media: “Guided by the cameraman, the camera continually changes its position with respect to the performance” (Benjamin 6). Benjamin’s thesis has never had more poignancy—even though almost a century has lapsed since he wrote it. Image-makers and audiences need to continue to question the camera’s agency, especially now that we live in an era when anyone can point, shoot and upload.

Filmmakers utilize the camera to collect images. They then extract meaning from these images, reforming them to create a coda of two-dimensional symbols, which are read in space and time by the viewer. In documentary practice this is more formally known as creating an inventory of shots, shots that are then used in editing to create a sequence. In *Film Art*, David Bordwell and Kristin Thompson refer to a sequence as a “term commonly used for a moderately large segment of a film, involving one complete stretch of action” (Bordwell Thompson 412).

Capturing an unmediated sequence was the basis for an additional production experiment. I set the camera on a tripod, filming myself entering the Vancouver Public library in an attempt to establish the scene. Similarly to my 3D experiments, I repeated and reviewed the shots in an attempt to determine how the spatial relationship between my body and the building changed as I moved away from the camera. However, the performative aspect of these experiments made me uncomfortable. I wondered if I had exceeded the boundaries of my documentary practice. According to film theorists such as Stella Bruzzi, the performative mode is acceptable for documentary though it blurs the boundaries between fact and fiction, “for it is a mode ‘which emphasizes-and indeed constructs a film around—the often hidden aspects of performance, whether on the part of the documentary subjects or the filmmakers” (Bruzzi, 154). She suggests that all documentary is performative because “it is given meaning by the interaction between performance and reality” (Bruzzi 154). One can infer from Bruzzi’s statement that there needs to be equal balance between “performance and reality.” I questioned the intrinsic

worth of my work, as I did not successfully achieve this equanimity during the production of *My Dinner With Israel*.

The performative mode is vital to my work and the films of other contemporary autobiographical filmmakers. Theorists such as Nichols state, “performative documentary sets out to demonstrate how embodied knowledge provides entry into an understanding of the more general processes at work in society” (Nichols 131). Yet, *My Dinner With Israel*, by revealing too much of my production method, may not have adequately depicted those “general processes.” Jane Chapman, the author of *Issues in Contemporary Documentary Filmmaking*, says if filmmakers permit the viewer to see how their films are constructed, then they are placing a reflexive element into their work. “Sometimes, a reflexive text will leave the audience to locate the authority and status of the discourse within the film, through its own, self-referential voice. Reflexive autobiography is case in point” (Chapman 127).

Ross McElwee’s establishes proportionate balance between self-reflexivity and performance in his work. In his films, McElwee assumes a multiplicity of roles including shooting, interviewing, recording sound and acting as the protagonist. The following excerpt from *Film Quarterly* illustrates how his employ of reflexivity heightens the viewer's awareness in respect to his relationship to reality:

In *Backyard*, McElwee’s presence within the situations he records is, for the most part, similar to our sense of the filmmaker’s presence in many earlier domestic cinéma vérité films. The world recorded simply surrounds the filmmaker and

camera, and it's obvious that the people filmed are very aware of the camera's intrusion into their lives. But in some instances McElwee goes further: he introduces himself as a character within the imagery; we see him as we hear him comment about himself and his life. And just as important, he sometimes takes conversational actions, which revise his relationships with the people he's talking with as he is filming. In other words, the camera is not simply recording McElwee's domestic life; it is witnessing changes in his life made possible, in part, by the camera's presence. (Macdonald 1)

Witnessing changes in my life, made possible, in part, by the presence of the camera, is exactly what I am striving for in my autobiographical work. McElwee's production processes results in a film that feels more spontaneous and less mediated, giving the viewer a complex closer view into his motivations and emotions. The clarity that McElwee has achieved in his work is definitely something that I yearn to emulate.

In addition, measuring the performance and credibility in my autobiographical work with the slightest degree of objectivity is extremely difficult. Nevertheless, I am secure in my belief that the autobiographical filmmaker is not only responsible for shaping events, but also striking a fine equilibrium between the amount of knowledge, the subject under consideration and the production method exposed. Bill Nichols argues documentary filmmaking "is about the effort to convince, persuade or predispose us to particular view of the actual world" (Nichols 69). This is a noble ideal that I aspire to reproduce by making a more full and complex film based on the initial experiments that I accomplished while creating *My Dinner With Israel*. Similarly to McElwee's work, the ultimate goal of

the film will be to eliminate the veneer between the audience and myself.

### Exploring X, Y & Z space

3D film and photography may not be a completely true facsimile of our real world. However, it may replicate it well. My experiments explore how 3D imagery has changed the relationship between the viewer and the subject by means of depth perception. My attempt was to understand how depth cues in 3D are accentuated and produced by documentarians in certain situations. Specifically, how 3D conceptually changes documentary conventions such as controlled situations in which interviews are conducted and uncontrolled situations practiced by documentarians when capturing actuality. Bruce Block, author of *The Visual Story* says “a controlled situation allows the filmmaker to manage their visual components. Even if the documentary is full of ‘talking heads,’ a lot of control is possible. And an uncontrolled situation is a difficult job because it is impossible to predict what will happen” (Block 266).

The initial step in my research was to acquire knowledge of S3D language. There are a multitude of 3D terms that are largely derived from science, primarily from the physics of human vision. Three terms are of particular importance to any study of Stereoscopic 3D. They are *camera convergence*—The towing in of one or both cameras in a stereo pair so that the optical axes of the cameras align somewhere on the Z axis; at the point of interest, in front of the point of interest, or behind the point of interest. The more you converge on a point of interest the further away on the Z axis that object moves. The second term is *camera interaxial*—The distance between the centers of the two lenses used in any 3-D film set up. My 3D still camera has a fixed interaxial distance, directly

informing my production method and in turn dictating the depth of the shot. The uncomplicated camera allowed for a greater volume of production in contrast to the larger and technologically more difficult 3D mirror rigs. The smaller device was also less intrusive enabling me to interact more intimately with my subjects. The third term is the *stereoscopic window*—For the spectator, stereoscopic space initiates at the window. The real effect of the window is to make stereoscopic space bigger by enabling action to be brought closer to the audience. In fact, stereoscopic space, both in front of and behind the screen, has a depth, which is measurable, much like the space of the everyday world.

I acknowledge the similarities between my methods and the techniques described by Jonathan Crary in *Techniques of The Observer*: “these apparatuses are the outcome of a complex remaking of the individual as observer into something measurable, calculable and regularizable and of human vision into something measurable and exchangeable” (Crary 17). The aspiration of my research was to produce images that were measurable and exchangeable. I endeavored to achieve this by imitating the 2D film conventions that I had practiced while making documentaries. I produced the images and then made a comparison, analyzing how they translated visually in three dimensions. These conventions have been studied and explored by academics and film theorists for almost a century. David Cook’s *The History of Narrative Film* and David Bordwell and Kristin Thompson’s *Film Art* historicize and scientifically codify these filmic conventions. Informed by these texts, my goal is to observe and evaluate my personal practice in the context of 3D film production. The intent of the experiments was to create a new subset of knowledge that could have direct importance to other documentarians.

The following is an abridged inventory of the documentary conventions I employed through the use of a 3D still camera. *Framing* can change a story. How is framing compositionally different in 3D? For instance if the camera is tilted what effect would that have on the horizon? *Perspective* is the size differential between foreground and background objects, causing the viewer to infer receding space. *Point of view*, there are two different types. One is the viewer's relationship to a character within a given environment. The other is a representation of the observer's point of view. *The subject camera relationship* occurs as the eyes circle the work and the subject becomes the focus. Does one thing dominate and become the viewer's central focus? Exploring *close-ups* is the natural tendency for the inquisitive eye. Unless the close-up image dominates the space then the eye examines the depth of the space and thus what is close-up becomes a distraction because of the area of interest.

If it is accurate that close-ups can be distracting this could be a potential disadvantage for documentary that is reliant on the close-up for expressing intimacy and emotion. *The vanishing point* implies that the actual air in front of you has depth or essence. Does physical space in 3D become significant and have an identity? *Reflections* in 2D are flat and uninformative in regards to the captured space. Mendiburu says that if "a reflection is not treated as a 3D image, it will be seen as a flat animated picture—like a TV screen, not like a mirror" (Mendiburu 107). How are reflections represented in 3D?

The subject of my digital 3D still investigation has been Michael Verity who has researched the stereoscopic work of Vancouver photographer Phillip Timms. This



photographer took 300 stereoscopic stills in Vancouver at the turn of the 19<sup>th</sup> century. Verity selected twenty of Timm's images with the intention of reproducing them as accurately as possible. I documented Verity as he worked in both controlled and uncontrolled situations researching and re-producing Timm's photos. I merely captured his actions and never directed him. The following twelve images are culled from the 200 shots that I initially took.

In fig 1.1 (see page 35), Verity can be located in the center of the image framed along the horizontal and vertical axis. The reserved sign closest to the bottom of the frame appears to be floating in space. Compositionally, the shot “ In fig. 1.2 (see page 35), is markedly more comfortable. Presumably this is because the camera is farther back from the reserved sign, which is no longer violating the bottom edge of the frame. The geometric confluence between Verity, found exactly in the middle of the space and the horizontal x and y-axis, evidently gives the viewer an opportunity to explore the area. The association of Verity to the foreground, middle ground and background of the space clearly allows the viewer to observe the *vanishing point*.

In fig. 2 (see page 36), the goal was to represent Michael's point of view in an uncontrolled situation. Point of view is a 2D convention utilized frequently by documentarians to illustrate the perspective of the subject. However, as the point of convergence in fig. 2 (see page 36), diverges, the two stereo pairs are far apart making it a challenge for the brain to fuse the image. The image is flat, contravening the goal of 3D, which is to lead the viewer through the volumetric space of the stereoscopic window.

In contrast, Fig. 3 (see page 36) is more akin to a proscenium or stage. Clearly the image has a *mise-en-scène* quality that can be detected in many films. Japanese filmmaker Yasujiro Ozu was mindful of mise-en-scene in films such as *Toyko Story*. Ozu was recognized for employing perspective shots of buildings and then allowing them to recede into the background creating a strong three-dimensional effect.

In fig. 4 (see page 37), my *modus operandi* was to imitate another 2D convention, the extreme close-up. The depth of the image occurs behind Verity. The white region in front of Verity demonstrably softens the image. The depth cues, which are not accentuated, allow the image to be accepted by the viewer as 2D because they are familiar with the convention. fig. 5 (see page 37), was shot in an uncontrolled situation. The vehicle at the bottom left hand side of the frame is not completely in frame. The illusion created by this object has the capacity to make the viewer feel as if the car is coming towards them. In contrast, the vehicle travelling in the opposite direction is suspended in the intersection. The eye is led down the *Z* space, through the vanishing point, aided by the line of the crosswalk.

Deconstructing these images I draw on the writing of Charles Bouleau, who in the book *The Painters Secret Geometry* posited the theory that renaissance painters organized their pictures geometrically in an attempt to lead the viewer's gaze to specific points in their paintings. He speculates that these artists constructed their paintings using the illusion of space, light and form to create a heightened sense of dimensionality. "There is the conquest by means of geometry in three dimensions, and also the conquest by means

of light and shade. The progress of this leads to a plastic art of illusion obeying the same laws of stability and weight as the real” (Bouleau 11). The artists of the renaissance tried to understand how to represent and mimic human binocular vision with paint and canvas. 3D photography merely captures the image, presenting our brain with a more accurate representation of the geometric form.

The geometrical patterning continues with the image fig. 6 (see page 38), the gaze of the three individuals is of particular interest. Possibly the man on the left is watching Verity. The figure on the far right is blurred and seems to be merely passing through the space. Clearly there is separation between all three figures, the cars and the background.

Undoubtedly the viewers gaze moves in the direction of the man on the far left, possibly because where there is the most depth in the shot. Fig. 7 (see page 38), was taken late in my production process. By that time, I had had an opportunity to view the images, understand some of the conventions that would produce immersive 3D pictures and was less concerned about depicting 2D images in 3D. In fig. 7 (see page 38), I was trying to decipher the relationship between the objects intra-frame and Verity. If the image were in 2D, the viewer would not have the capacity to witness the paper floating above the light table or to observe the accentuated curve of the map. In fig.8 (see page 39), the books on the left vertical axis give the image a symmetrical sense and assist in guiding the eye through the center of the image. In addition, the fluorescent lights on the ceiling act as a tracking mechanism leading the eye along the horizontal axis.

Figure 9, was photographed on the initial day of my production. A large concrete pillar violating the left hand side of the frame dominates this shot. Viewing the image, I was perplexed by the lack of depth in shot. Therefore, I repeated the action with Verity to observe what would occur if the pillar were eliminated. The results are apparent to the viewer in fig. 10 (see page 40). Dissimilarly to fig. 9 (see page 40), the image has immersive depth cues and the vanishing point, which is present to the viewer. The wall on the left side clearly helps to direct the eye through the image. In fig 11 (see page 41), there are two distinct spatial relationships between the interior and exterior of the shot. Verity can be located inside the actual physical space. However, he can also be found in a second space, which looks much like reality but is actually an illusion. The artificial space and inner space seem to meet and travel along the Z axis synthetically creating an infinite vanishing point. In fig. 11 (see page 41), there is interplay between what is observed and what is rational. The viewer identifies implicitly that it is not feasible for Verity to be in two separate spaces, yet this is visually represented as reality.

## FREEVIEW

Materially my still production grazed the facade of how two-dimensional filmic conventions can be applied in three dimensions. I acknowledge that my findings may have been more significant if I had advanced technical knowledge and taken more time to create my shots. Nevertheless, my findings necessitate that for documentary filmmaking the production of the close-up is a concern. This is a convention that documentarians rely intensely on to express tone, texture and emotion in their work.

Conversely, my examination of the subject, object relationship was startling and fertile. My findings suggest that 3D space does have an essence and that the objects inside an area are as remarkable as the subjects found intra-frame. If the image producer does not allow for sufficient observational time to absorb these relationships then the viewer's gaze will shift through the space. Nonetheless, the image creator may relish in the possibility of relinquishing control, which may lead to multiple interpretations of the space.

In fact, the space in 3D appears to have an essence. There is a sensorial aspect to many of the images that I observed and produced. The images possess tactility although the viewer is unable to touch or feel them. Perhaps the foremost discovery made during my production was the ability of reflections to be captured and depicted in three dimensions. When scrutinized, reflections have two distinct spaces, both of which are inhabitable by our brains. Z space is of equal interest. It allows our eyes to journey through the infinity of the screen plane. The deployment of Z space will notably influence how filmmakers tell narrative and non-narrative stories in three dimensions.

The impact on documentary filmmaking is immeasurable. For documentarians many questions necessitate further research i.e. how does the physical relationship of the filmmaker's body change in relationship to the placement of the camera in relativity to the subject? In my research it is visually evident that in order to represent the subject's point of view I had to change my relationship to Verity in the space. I moved further

away from him in order to create a feeling of separation between the camera and myself for the viewer. Thus much of what Welles and Toland attempted to portray in *Citizen Kane* using deep focus photography to emphasize the emotional distance and closeness between actors could be applicable to non-fictional characters in a documentary. As well, the production is an attempt to test my hypothesis regarding movement in 3D documentaries. My theory is that documentary filmmakers need to emulate some of the historical conventions of dramatic cinema. For instance, envisioning 3D as an aperture to the proscenium of the stage in order to capture a change in the character's place or position. Similar to drama pre-visualizing the movements of ones subjects could allow documentarians the ability to utilize 3D by accentuating the depth cues and emotionality of three dimensions. Documentarians rely on close-ups and spontaneous moments to portray emotion and intimacy in two dimensions. The stills that I have produced dictate that some close-up conventions such as the over the shoulder shot are limited in 3D. As well, shooting in 3D necessitates that the documentary filmmaker must be aware of unforeseen movement i.e. objects such as vehicles entering and exiting the frame. Unlike 2D, the spatial relationship of the viewer to these objects is altered significantly even with the slightest movement of these objects.

There are pertinent technical questions that require ample consideration before further embarking upon my 3D journey. However, more prominently, I need to determine how my 3D still production informs my documentary production methods. For autobiographical documentary, 3D may prove to be an exceedingly difficult tool to master for two significant rationales. The quality and depth of images produced for an

autobiographical documentary are significant. However, close-up work and the spontaneity of the moment are of equal importance for autobiographical documentarians and this may be lost in 3D. In addition, it is challenging for a filmmaker without a measure of embodied knowledge to calculate movement within the volumetric space of 3D. This effectively increases the amount of video shot versus the footage utilized in the final product. Will the 3D format prove to be an excellent means of creating an autobiographical documentary? I believe that the technology might establish difficulties for the uninitiated autobiographical documentary filmmakers. If filmmakers want to truly be informed by the medium, they will have to immerse themselves in the techniques of S3D.

Ultimately what I have learned in the making of 3D stills and video is that it is a process of re-invention of the form by which images are created and perceived. It is my belief that documentary filmmakers need to incorporate 3D directly into the story and the subject and genre of the film will largely predicate the decision to film in the medium. It is also evident from the research that I conducted that the scientific terms used to describe 3D inadequately describe the art of 3D documentary production. I will be conducting further research into this area and will explore the possibility of creating a new language that documentarians could employ in the discussion of 3D production and post-production processes.

After documenting Michael Verity's return to Fogo through the use of a point and shoot 3D video camera, I can better comprehend what Wim Wenders was saying in relation to

the production of his 3D documentary *Pina*, “that you have to forget everything you know about filmmaking” (Wenders 1). He is not saying that the embodied knowledge that filmmakers have garnered while making 2D films is superfluous in the making of 3D films. He is saying that documentarians have to think about 3D space differently. I believe this is of utmost importance, especially for documentary makers when they are pre-visualizing or conceptualizing their 3D non-fiction films.

During my installation at the Charles H. Scott Gallery, I observed people looking at the work. Some seemed merely enthralled with the novelty of putting on red and cyan paper anaglyph glasses. Could it be that they were reacting to the zeitgeist codified by the multitude of photographs historicizing 3D’s first rise to prominence in the 1950’s? Other viewers of the work stayed in the space for longer intervals, seemingly mesmerized by the looping video. I am not exactly sure what they perceived. However, a woman told me while I was doing a repair to one of the monitors that “the work was profound”. I was perplexed by this and asked to clarify what she meant. But unfortunately she was unable to articulate a clear response. I searched for the word in the Oxford Canadian dictionary and was struck by this definition, “at or extending to great depth” (Oxford 1237). This is the direction that I want to pursue in my work; one in which the viewer is totally immersed.

Recently Ray Zone, a 3D filmmaker and the author of two books about the 3D’s history (*Stereoscopic Cinema and the Origins of 3-D Film, 1838 - 1952*), spoke at Emily Carr University. In his lecture Ray said.



The stereoscopic realism now available to the motion picture storyteller can reinforce this dream of unity in the cinema. And it can drive equally well a narrative in the service of the abstract or the real. What is essential is the growth of a republic of dreamers equally adept at using the Z-axis parameter for abstraction or realism in telling new stories on the stereoscopic screens. (Zone 1)

Abstract is the operative word in Zone's quote. The realism depicted in current 3D cinema (*Avatar*) is apparent. However, the next frontier for 3D arguably is abstraction. 3D's most intriguing deployment will come from artists and filmmakers willing to forfeit control of how their images are perceived, making undetermined use of depth cues and Z space.

The discoveries I continue to make in 3D video will inform my work in various ways, specifically as my social, political or even personal positions shift over time, stimulating a new route for my documentary work that is more self-conscious, without necessarily being too reflexive. 3D, with its illusion of depth will open out the flatness of the cinema screen. This will give my documentaries new depth and form, motivating me and pushing the boundaries of my practice in unforeseen but positive directions.

I am interested in researching whether 3D will provide an additional visual narrative element that I can incorporate into my films. As a documentarian I am envisioning that my future projects may have a simulacrum between the internal and external world. For

example, interviews conducted in interior spaces where there are limited depth cues may be captured in two dimensions and action sequences in exterior spaces with the natural environmental depth cues could be accentuated by employing three-dimensional cameras. This would undoubtedly create an exciting new hybrid documentary that would simultaneously utilize both two-dimensional and three-dimensional elements.

Figure 1.1



Figure 1.2





Figure 2



Figure 3





Figure 4



Figure 5



Figure 6



Figure 7

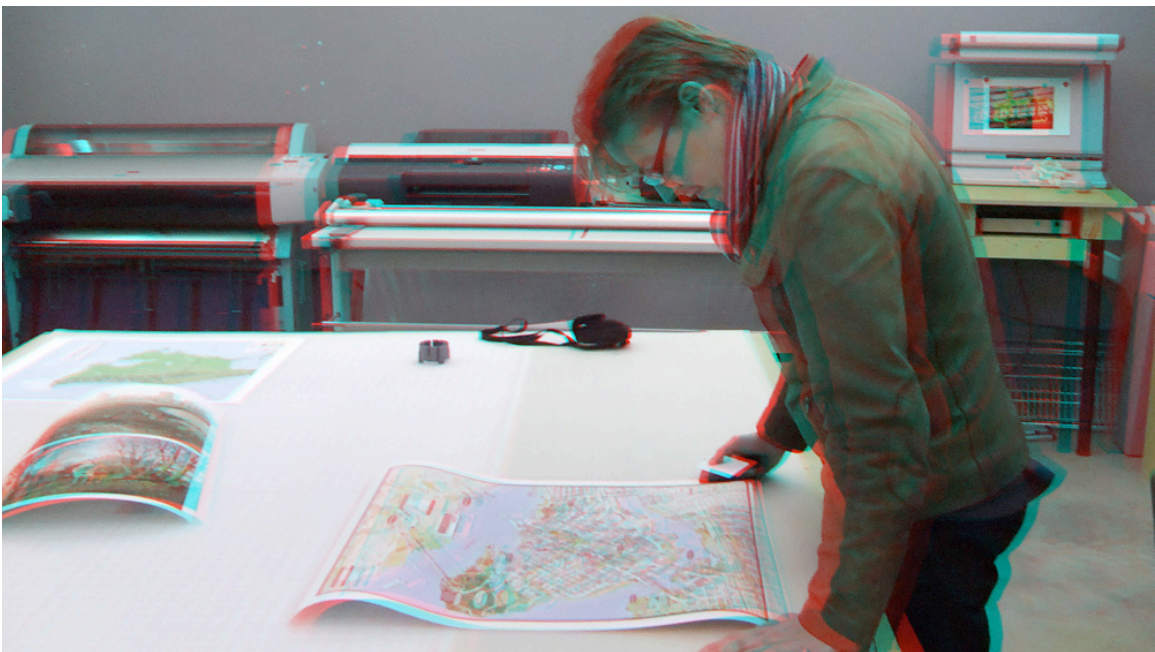




Figure 8



Figure 9

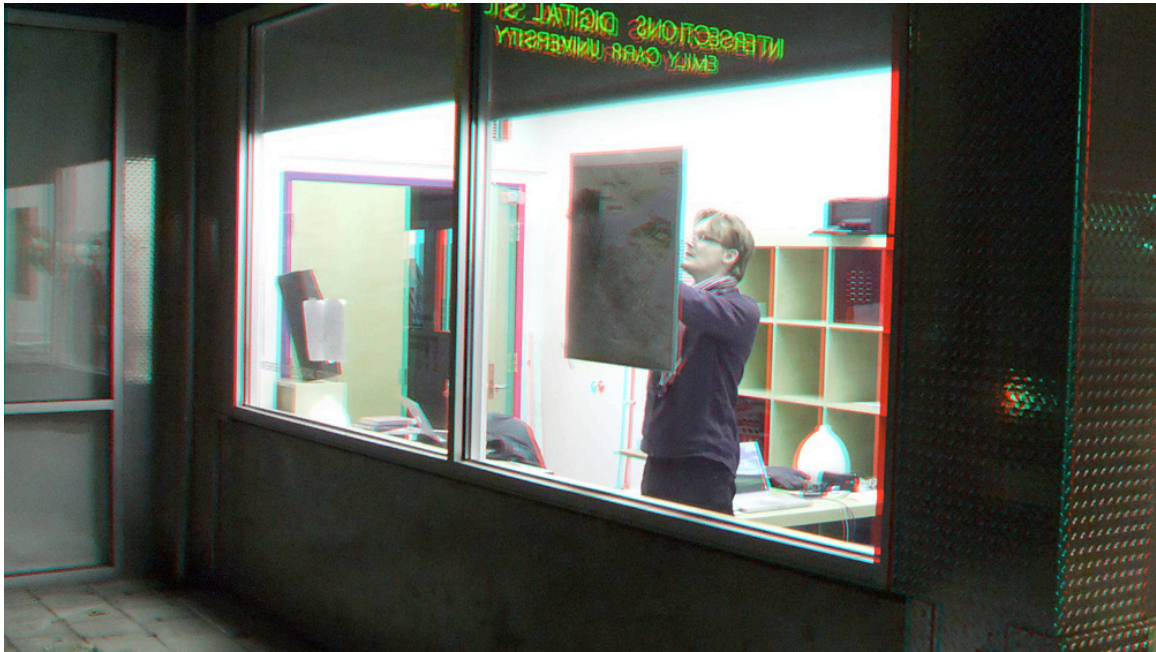


Figure 10





Figure 11



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