

**DIGITAL IMPERFECTIONS: ANALOG PROCESSES IN 21<sup>st</sup> CENTURY CINEMA**

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A Support Paper for M.F.A. Thesis  
Submitted to the School of Graduate Studies  
of the University of Lethbridge  
in Partial Fulfillment of the  
Requirements for the Degree

MASTER OF FINE ARTS

New Media  
University of Lethbridge  
LETHBRIDGE, ALBERTA, CANADA

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# **DIGITAL IMPERFECTIONS: ANALOG PROCESSES IN 21<sup>st</sup> CENTURY CINEMA**

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Date of Defence: November 4, 2014

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## Abstract

Present day cinema's singular pursuit of digital visual effects has resulted in a perceptual alienation of the audience due to missing constructive collaboration between artist and audience resulting from the imperfect mix of multiple analog and digital sources in the creation of the illusions. The digital's ability to represent anything and everything on its own reduces the viewer to a mere spectator and no longer an imaginative participant. The reintroduction of imperfect analog effects, married to the digital medium, allows the viewer to contribute to the illusion rather than be pushed away by the perfectionist digital rendering that does not require their assistance. Both absence and imperfection are essential to selling the illusions of the cinematic landscape. This thesis project, the feature film *Prairie Dog*, is designed to address this singular digital disconnect in present day cinematic illusions by creating and experimenting in a variety of analog effects in combination with digital processing to illustrate the viability of analog incorporation in present day digital cinema.

## Contents

1. Introduction.....	1
2. Research Aims .....	4
3. Justification of Research Methods .....	14
4. <i>Prairie Dog</i> Sequence Analysis.....	16
4.1 Opening title sequence: water tank experimentation .....	16
4.2 Sara’s Night: miniature creation and photography .....	20
4.3 Train Depot and Into the Fields: acrylic matte painting and compositing .....	30
4.4 Beast at the Door and Bleeding Tree: absence in design .....	37
4.5 Forest Chase: creature work/articulation .....	47
4.6 Creature Dines and Final Confrontation: analog and digital character work.....	54
5. Conclusion .....	61
6. Works Consulted.....	64

## List of Images

Figure 1: Blade Runner (1982): matte painting .....	9
Figure 2: Invasion of the Body Snatchers (1978): opening title special effects .....	16
Figure 3: Poltergeist (1982): cloud tank photography .....	18
Figure 4: Prairie Dog (2014): water tank ink dye experimentation pt.1 .....	19
Figure 5: Prairie Dog (2014): water tank ink dye experimentation pt.2 .....	20
Figure 6: Psycho II (1983): optical composite.....	21
Figure 7: Poltergeist (1982): cloud tank composite .....	22
Figure 8: Poltergeist (1982): matte painting & final composite .....	23
Figure 9: Prairie Dog (2014): matte painting by C. Blake Evernden.....	25
Figure 10: Prairie Dog (2014): optical plate composite.....	27
Figure 11: Prairie Dog (2014): miniature creation & composite .....	28
Figure 12: Prairie Dog (2014): miniature forced perspective daylight composite.....	28
Figure 13: Bram Stoker's Dracula (1992): matte painting.....	30
Figure 14: Prairie Dog (2014): matte painting by C. Blake Evernden.....	34
Figure 15: Prairie Dog (2014): matte painting by C. Blake Evernden.....	35
Figure 16: Prairie Dog (2014): matte painting by C. Blake Evernden.....	36
Figure 17: Prairie Dog (2014): green screen and smoke element composite.....	36
Figure 18: Jaws (1975): photographed by Bill Butler.....	39
Figure 19: The Wolf Man (1941): makeup by Jack Pierce .....	40
Figure 20: Prairie Dog (2014): puppet shadow composite .....	44
Figure 21: To Kill a Mockingbird (1962): photographed by Russell Harlan.....	44
Figure 22: Prairie Dog (2014): cloud tank composite.....	45
Figure 23: Prairie Dog (2014): ¼ scale resin sculpt composite .....	46
Figure 24: An American Werewolf in London (1981): directed by John Landis .....	48
Figure 25: Prairie Dog (2014): 2.76:1 creature vision design.....	50

Figure 26: Prairie Dog (2014): baby creature sculpt in wet clay .....	51
Figure 27: Prairie Dog (2014): baby creature puppet photography .....	51
Figure 28: Fright Night (1985): creature design by Randall William Cook .....	55
Figure 29: Alien (1978): directed by Ridley Scott .....	57
Figure 30: Prairie Dog (2014): creature reveal inspired by Alien (1978).....	57
Figure 31: I Am Legend (2007): digital animation vs. animatronic silicone makeup .....	61

## 1. Introduction

In 1941, the method for the on-screen transformation of Lon Chaney Jr.'s *The Wolf Man* was in the hands of contract makeup artist Jack Pierce. Chaney was to sit motionless with his position detailed on panes of glass for reference while his prosthetic makeup was applied and removed in a series of time lapse dissolves. The cumulative effect is not one mistaken for realism, but it has stood the test of time because of its innovation of vision and its haunting, restrained, surrealistic take on a seemingly insurmountable cinematic hurdle: how to conduct an on-screen transformation from man to wolf. The pleasure in observing cinematic effects such as this lies in both knowing that there is an illusion at play and in engaging the audience in the completion of that illusion. The cinematic narrative is reliant on this constructive effort with the audience for its ultimate effect and these analog illusions engage our imagination simply by leaving something to the imagination.

In 2010, on an estimated production budget of \$150 million (compared to the \$180,000 of the 1941 version), a remake of *The Wolf Man* was staged with Rick Baker (a five time Academy Award winner) engaged for the special makeup effects. Contrary to his participation, the transformation scenes were instead entrusted to digital animation. While these effects are conducted with a cinematic eye for light, shadow and framing, the effect on the viewer was severely diminished this time around. Film critic Roger Ebert prefaced his remarks by noting that the film's one flaw is a current cinematic trend: "The film has one flaw, and faithful readers will not be surprised to find it involves the CGI special effects. ... When the werewolf bounds through the forest, he does so with too much speed. ... He almost cries out: Look! I'm animated" (par.6). Keith Uhlich of *Time*

*Out New York* furthered this observation, detailing how easily the viewer was pulled from the narrative: “When the beast finally bursts forth, the character becomes, for the most part, a digitally augmented blur -- there's no room for a performance underneath all the 0s and 1s” (par.2). On a related note, A.O. Scott noted the comparison of implication versus unimpeded visualization of the original against this remake: “The implied violence of the original gives way to a literal-minded bloodbath” (par.3). The diminishment of the illusory effect between the 1941 original and the present day incarnation illuminates the practical difference between the analog and digital artifice; with the analog we are looking at the illusion, while with the digital we are looking through it. This difference is not because of a lack of artistry or craftsmanship within the digital practice, but rather because the digital process allows the artist to reconfigure the constraints of the mechanics of cinema, such as the need for editing around an illusion, photographing an illusion in part, or leaving an illusion in absence. The effect of this reconfiguration is that the viewer is no longer a collaborative asset in the design and interpretation of these illusions. They have not been asked to contribute to the imagining of what is seen or unseen in a given cinematic vision. Without the request for this collaboration, the viewer looks past the illusion, unengaged.

By working without the crutches of the analog illusory world, such as crafting virtual cameras that pass through walls unencumbered by the mechanics of the physical world of filmmaking, the digital arts draws attention to the fact that the viewer is no longer required to fill in the blanks of the analog vision. What used to be a collaborative illusory effort between audience and filmmaker has now been taken away from the viewer and allowed to be completely detailed by the machine. In Francesco Casetti's

words, “the digital image has the ability to offer us a representation of things without ever having need of things themselves” (*Sutured Reality* 95). The digital images aspiration to change the historical mechanics of cinema results in a perceptual alienation for the audience. The viewer is placed into a “perpetual state of perceptual crisis” (Purse 5) as the mechanical function of cinema which necessitated the viewer’s imaginative construction of the cinematic world has now been replaced by the digital’s ability to show anything and everything at will.

The answer to this crisis lies in reenlisting the collaborative effort between audience and filmmaker, by reenlisting the collaborative nature of cinematic illusory effects. Through the reintroduction of imperfect analog elements into this digitally mediated cinematic environment, impressions of reality and the absence of explicit visual detail surrounding an illusion can conspire towards a reengagement of audience collaboration.

## 2. Research Aims

Cinematic illusions succeed on the basis of their aesthetic design. The successful nature of the aesthetic, and by extension the illusion, is how the aesthetic is presented for our narrative and diegetic absorption. The introduction of digital imaging as the current state of the cinematic illusory arts has been met with increased apathy and ennui primarily because we are surrounded by digital imagery in our everyday lives and consequently have become more attuned to and “more familiar with the aesthetics of the digital image” (Ganz and Khatib 32).

William Earle argues that in order to preserve the aesthetic phenomenon, an “aesthetic distance” is needed, stating that to “distance oneself from the phenomenon is to contemplate it as phenomenon” (255). This indicates that the viewer is an essential requirement for the proper extension of the illusion into the individual imagination. The illusion and the aesthetic cannot exist in isolation, and the virtual immersion of the digital in both its cooption of the camera and edit, as well as its calculated difficulty to manifest the imperfections so readily available with the analog, pushes the viewer further away from the illusion rather than drawing them closer to appreciate and participate in them. *The Wolf Man* remake utilized unmediated digital visualizations in every facet of the landscape and character actions as a fallback for lacking this collaborative point of view, and inviting the audience to construct what was only implied. The digital's ability to envision anything and everything has also led the digital arts to reject the idea of a non-visualized image, both in the edit and in the absence of the illusion. A cinematic illusion succeeds through both misdirection and the engagement of the viewer's imagination. The

alienation of the viewer through pure digital creation results from the imaginative process of both viewing and imaginatively constructing a given world. In other words, the language of cinematic mechanics being taken away from the viewer because the illusion has been completely envisioned for them. The overarching effect of not needing the audience in a collaborative and constructive visual storytelling sense results in a visual narcolepsy.

Constructive engagement with the viewer can manifest itself in a variety of narrative aspects. The use of absence within a sequence can allow the viewer to be constructive of their own fear of the unseen, just as the restrained vision of a character can allow them to imply a whole host of off screen performance ideas. The essence of the analog process is in never being in complete control of both the presentation and the performance of the elements. By searching for an analog image that the viewer can use to harness for their own imaginative creation, the visual impression that is created allows the viewer access to his or her own imaginative rendering of the implied details of an object, both from a distance or in visual absence. It is not that absence is not possible in the age of the digital; it is that it is not essential. The analog methods of the past assured that this absence was a reality, if not in whole, then in part. The imperfect elements force creative decisions to be made, both from a narrative filmmaking point of view and from an individual viewer's interpretation and constructive extension of them,

My thesis project, *Prairie Dog*, is a feature film set in the present day, but modeled stylistically on the monster movies of the 1940s and 1950s. The project is designed to address the digital disconnect in present day cinematic illusions and illustrate

the viability of analog incorporation rather than their outright rejection. To that end, this support paper will cite examples from both the thesis film and past cinematic analog illusions. This study will be conducted within areas such as the incorporation of acrylic matte paintings versus purely digital mattes, practical creature photography married with digital characters versus pure digital animation, and organic analog experimentation versus a hermetically detailed and meticulously planned digital design. Beyond these areas of study, the genre and stylistic time period of the chosen narrative allows and demands the incorporation of absence following these illusions, allowing the viewer room to envision what is only partly shown, versus the unmediated expanse of digital world building. The ultimate result of the *Prairie Dog* study is one of a visual reengagement of the audience in the appreciation and visual collaboration of the cinematic narrative through a marriage of analog and digital illusory effects.

Analog visual art and physical creations contain almost imperceptible mistakes based on the practical artist's human approach to the art form, such as smudges, seams, brush strokes and perspective deviations. These qualify as the works *facture*: its sign of craftsmanship that separates that artistic creation from any direct semblance of the real world. These distinct imperfections allow a given cinematic creation an impression of the world it depicts, rather than a seamless duplication, and draws the viewer closer to appreciate the crafting of the illusion. Digital artistry contains its own *facture* based on the perception and craft of the individual artist, such as Gareth Edwards' character animation and visual effects work on *Monsters* (2011), where his design and animation infused the monstrous creations with a very personal bioluminescence and physicality,

but even then the low-budget nature of the photography would not allow a perfect fusion with the digital mattes painted across it. One might also reference Kerry and Kevin Conran's collaborative digital design for *Sky Captain and the World of Tomorrow* (2004), where the starkly stylish visuals harkened back to a more anachronistic modern visual sensibility in which the digital artifice at times mirrored the back lot storytelling hinted at with the film's allusions to *The Wizard of Oz* (1939). And yet the effect can often fall into perceptual crisis when all aspects of the illusions creation falls behind a singular, digitally-enabled creative process, and no longer utilizes the historical mechanics of analog cinema to facilitate the viewer's diegetic absorption within a given fabricated world. The analog processes of 20<sup>th</sup> century cinematic special effects allowed the sale of these illusions by creating a tapestry of varied techniques and mechanics, which the viewer would then digest as a diegetic whole. This tapestry of cinematic language – edits, deliberately constructing and revealing elements in part, and the strategic use of absence – allowed the viewer to construct the illusion in their minds by filling in the missing elements or imagining an off camera idea. Moreover, it also allowed them to appreciate the craft of this completed illusion. The cinematic trickery at play through the myriad of cinematic techniques was part of an artistic appreciation as much as narrative absorption.

The artifactuality of the image draws appreciation to the craft of the elements without distancing the viewer as the craft becomes part of this attention. The reflexivity of these designs engages the viewer in their own visual construction within the given narrative, fleshing out the narrative universe even further. Richard Wollheim fashioned the term “twofoldedness” in regards to the painted image (Wollheim 46). The term relates to “a simultaneous awareness of both the representational surface and of what is being

represented” (ibid). Murray Smith highlights a “paradigmatic experience of the filmic image, in which we have this two-fold, dual awareness of that which is represented, while we also are aware of the configurational features on the screen which allow us to have the seeing experience” (“Transparency and Reflexivity in Film”). The cooption of Wollheim’s term and its relation to the painted image in this study is deliberate as this reflexivity relates equally to the analog elements and the surrounding cinematic mechanics that engage the filmgoer in much the same way one would regard a piece of art in motion. There is a visual collaboration with the viewer in standing before a work of art as much as a viewer before a cinematic narrative. An individual work of art is not hermetic to the audience before it. One can observe the analog visions present in works such as Douglas Trumbull’s design for *Blade Runner* (1982), which art director David L. Snyder referred to as "the last analog science fiction film" (*Dangerous Days*), where the use of miniatures, flared light, and smoke obscured the details of the cityscapes in a manner that the viewer could infer detail and expand upon the analog impression before them. Another example is in the use of fully constructed sets to be populated with puppeted creatures in *The Dark Crystal* (1982), by Brian Froud and Harry Lange. The nature of the puppeted creations necessitated that the photography would mask the lower half of the frame or forced a specific vantage that would best suit the performance of each creature. The constructed vantage of the illusion, and sometimes the absence of whole sections of the world, engaged the viewer to help complete the cinematic work.

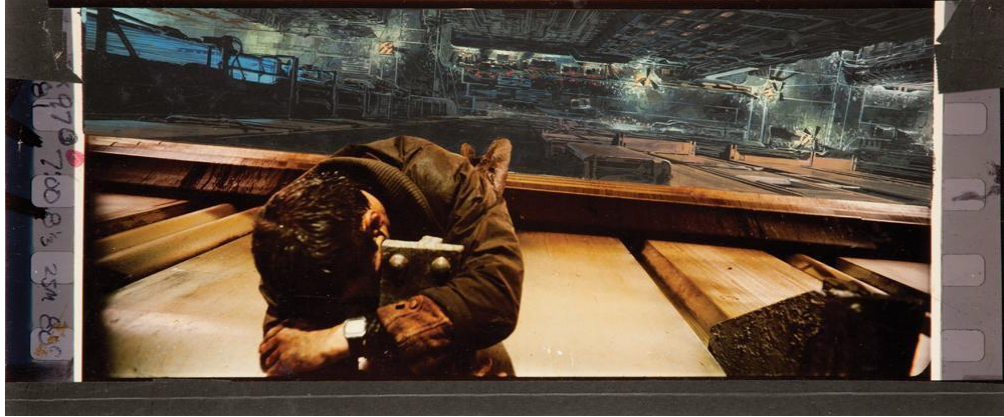


Figure 1: *Blade Runner* (1982): matte painting by Matthew Yuricich

Absence is an essential aspect of the imperfect illusion and of partial visual representation because it allows for the engagement of audience collaboration and construction. Dudley Andrew chides this “vaunted medium of the visible” as being an art form that succeeds instead by subtraction, “forming reality’s negative imprint” (“A Film Aesthetic to Discover” 59). Andrew argues that cinema puts us in touch with a reality that we only partly glimpse on the screen: “What is on screen is not reality but its precipitate ... it conjures the presence of something richer; the image is the phantom of the fully real that hovers around” (*What Cinema Is!* 41). There’s imperfection in an incomplete image and absence assures this fact, just as the absence of the shark in *Jaws* (1975) creates tension out of fear of its return, or the absence of the light on the moors in *An American Werewolf in London* (1981) fuels our fear of what is just beyond our vision. It is not that absence is not possible in the age of the digital; it is that it is not essential. The analog methods of the past assured that this absence was a reality, if not in whole, then in part. Absence following imperfection allows this “phantom of the fully real” – the viewers imagined vision of what is not fully realized in the cinematic narrative – to reverberate in

its passing (ibid). Consequently, this “phantom” allows the audience to identify with, appreciate, and complete the image for themselves.

Andrew references Sean Cubitt’s notion of “The Cinema Effect,” which deals with the manner in which “...audiences imagine that filmmakers can completely structure audio-visual experience, encouraging the idea that movies have always been nothing other than a special effect” (“A Film Aesthetic to Discover“ 51). Jean-Pierre Geuens cautions against the visual malleability of today’s cinema by claiming that “the whole point of the new technology is to substitute ‘signs of the real for the real itself,’ with the benefit that ‘never again will the real have to be produced” (Baudrillard qtd.in Geuens 20). The essence of this argument is two-fold. Firstly, the digital, being the current state of the art, is utilized to create a “sign of the real” rather than incorporating the many imperfect, analog options successfully incorporated into the cinematic mechanics in the past. Secondly, digital imaging threatens the historical essence of cinema by calling into question the need for anything real to be actually photographed. Geuens underlines this point by referencing the “nihilistic tendencies” of the current digital revolution in cinema, which alters the longstanding manner in which movies “come into being” (16). Again, such an alteration calls attention to not just the photography of the real, but the mechanical language of cinema in general. Philip Rosen related that “digital imaging drives to overcome the authority of anything that it determines is old ... that pre-exists its own operations” (323). Both Rosen and Geuens point to an inherent need to balance the visual illusions within the cinematic landscape, and to draw upon historical cinematic mechanics to help sell the current state of the art. From a genre and illusory perspective, such as with *Prairie Dog*, the introduction of analog illusions, parsed through historical

cinematic mechanics, will achieve this balance in a way that engages the viewer in mutual visual creation.

Dudley Andrew maintains that digital is a word that now connotes ultimate control, further claiming that the most endangered element by digital culture is likely a “taste for the voyage of discovery” (“A Film Aesthetic to Discover” 51). What Andrew is referencing here underlines the nature of this thesis work: the development of cinematic illusory arts requires constant experimentation and the facilitation of discovery in order to maintain collaboration with the viewer’s imagination. The digital’s ability to represent anything and everything reduces the viewer’s anticipation and imagining of the given narrative. The absence of perfection, the absence of unmediated visual representation, and absence within the illusion in general, are what cultivates the effect of the visual design of *Prairie Dog*.

For the purposes of this study, given that the current state of the cinematic illusion is processed through a digital lens, it was important to not be concerned with the digital machine mediating the analog. Rather, by incorporating a myriad of imperfectly crafted analog arts into the digitally mediated narrative, the observed effect should be one of systematically layering the narrative with the tapestry of cinematic language that previously engaged the viewer in collaborative craftsmanship. The main issue with digital visualization of cinema is that the artist is free to relegate decisions for the visualization of the narrative till well after principal photography has been completed. The digital process maintains that many elements of illusory visualization will need to be detailed after principal photography, but the essence of the analog process is in never being able

to completely control the presentation and performance of the elements, so my methodology and process are designed to control the degree to which my production elements are manipulated within a digitally mediated environment in order to study the effect these analog elements have on the overall visual narrative. The digital process must be subordinate to the analog elements for the purposes of this thesis study, even though a marriage with digital process is paramount. The location photography, for example, became subordinate to the analog elements present at the time of photography in order to maintain the integrity of those analog creations. This method assures the analog elements maintain a uniqueness of visual texture and an impression of the real world as filtered through my own artistic abilities, forcing the cinematic mechanics, such as photography and editing, to deal with the imperfect elements in a way the viewer can contribute to.

Through the process of creating *Prairie Dog*, I observed many analog and digital works for both inspiration of analog creation and for achieving a balance towards the digital. Reference is made to these works for comparative illustrations of analog craftsmanship, in both digital cinema and filmic cinema. *Invasion of the Body Snatchers* (1978) was a point of inspiration for its experimental optics and practical effects within its opening title sequence of the alien species' journey towards our world. Films such as *Psycho II* (1983) and *Poltergeist* (1982) were observed for their use of miniatures and optical compositing of light and shadow. *The Wolf Man* (1941), *Alien* (1979) and *Jaws* (1975), among others, were inspirations for their use of absence as well as for their photography of the unreal. Each sequence is studied from all cinematographic perspectives, specifically how the illusory process is presented, what practical elements are used, and how fantastical character moments are filtered through the analog process.

This thesis work is written and designed to incorporate a myriad of hand-crafted illusory techniques, filtered through and married to the digital state of the art. Makeup effects, puppetry and creature design were utilized to create a unique movement and visual texture for the villains, as well as instilling limitations on how they could be photographed and performed in a way that engages the viewer in the imagining of the creatures within the narrative world. Acrylic matte paintings and miniatures, sometimes composited with forced perspective photography, were designed with a detail level specific to their envisioned distance and perspective in order to add depth to the landscape, as well as to narratively flesh out a cinematic community that did not exist. Lastly, a water tank was used for experimentation with inks, dyes, and layered atmospherics, photographed in macro photography to sell the details as something imperfectly believable living within the story's landscape.

### 3. Justification of Research Methods

The imperfect presence of analog practical special effect elements force a given filmic narrative to deal with those illusory moments by either influencing the specific photography of those elements or by influencing the optical compositing of those elements in relation to their photographed plates. Regardless of the outcome, the imperfect elements force a decision to be made. The unpredictability of how those elements can be photographed, in a given location and with given weather and lighting patterns, creates an unavoidable imaginative visualization of a given narrative element. By extension, this limitation also gives the viewer opportunities to construct further imaginative instances of those illusory elements within the final narrative. The imperfections of real world lighting and locations alone in this research could end up being the difference between the digital artifice and the cinematic real. The juxtaposition and incorporation of these techniques aims to demonstrate that an impression of reality is not simply a feeling that is experienced, but rather is triggered by discursive practices acquired across a long history.

An attempt will be made to explore the work under the umbrella of Wollheim's "twofoldedness," observing the artifactuality of the visual construction of the photographic, the painted, the sculpted, and the mechanized, through a digitally mediated art form (Wollheim 46). When placed in the context of this feature narrative, these elements allow an observation of the juxtaposition of the real and the fabricated in its many forms. The imperfection of both the constructed and the real produces a more heightened and immersive cinematic reality in constructive tandem with the imagination of the viewer.

These studies involve:

1. Water tank experimentation – Opening Title Sequence.
2. Miniature creation and photography – Sara’s Night.
3. Acrylic matte painting and compositing – Train Depot and Into the Fields.
4. Absence in design – Beast at the Door and Bleeding Tree.
5. Creature work/articulation – Forest Chase.
6. Creature character work – Creatures Dine and Final Confrontation.

These experiments use both in-camera effects and post production digital composites and required a degree of visual latitude in order to sustain the integrity of the analog elements. The majority of the feature was shot on the RED Scarlet camera, an application that allowed for a high degree of malleability in its ability to shoot flat, raw footage that could be altered in order to incorporate the analog works, either on set or in post-production, while the remainder of the post analog effects were filmed on the 4K Panasonic GH4.

## 4. *Prairie Dog* Sequence Analysis

### 4.1 Opening title sequence: water tank experimentation

#### 4.1.1 Inspiration: *Invasion of the Body Snatchers* (1978)

The inspiration behind this sequence was in the experimentation for both in-camera effects and for working towards a scope of vision without the budget or necessary means to create the vision that was required. The opening sequence of *Invasion of the Body Snatchers* (1978) needed to illustrate an alien race abandoning its home planet and making the journey to earth. Lacking the budget for state of the art effects, special effects supervisor Howard Preston utilized forced perspective on a small three foot set to mimic an alien landscape. He used chemical experimentation in water tanks, along with every day drug store items such as lip gloss and hair gel, to create an alien race in both look and movement. For an outer space star field, a Plexiglas sheet was painted deep black and pecked with holes to allow the light bleed through to camera.



Figure 2: *Invasion of the Body Snatchers* (1978): special effects supervisor Howard Preston

The effect of this experimentation, and the marrying of disparate elements digested through forced perspective, macro and reverse photography, is designed to disorient the viewer in an artifactual landscape presented only in pieces. The incompleteness of the illusion allows itself to be assembled and completed in the viewer's perceptual imagination. In essence, the design and fabrication of this sequence achieves the reverse of Geuens concern about the malleability of today's cinema; the "signs of the real" are present, but the real has actually been produced (16). This is the essence of why analog effects have succeeded for such a long time within cinema, because the real is still constructed. The impressionistic and imperfect nature of the work has effectively blurred the line between the real and the surreal.

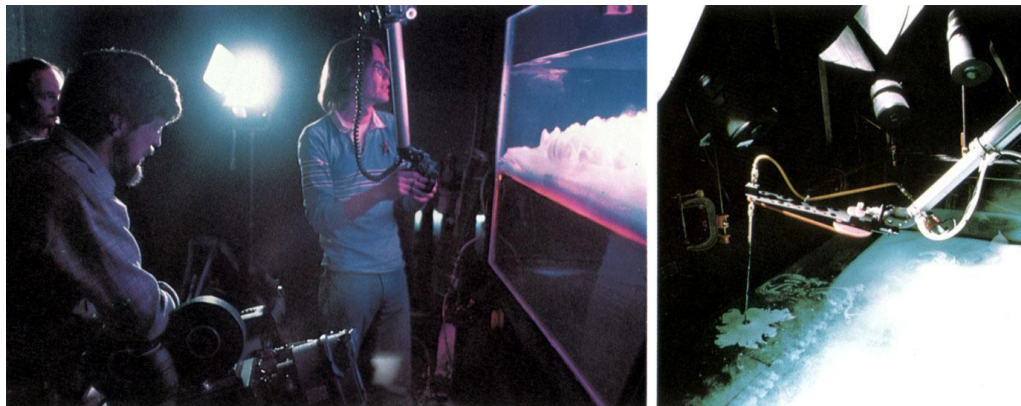
#### **4.1.2 Design**

From a narrative perspective, the opening title sequence of *Prairie Dog* was a designed to set up the mystery and potential alien presence in this cinematic world. The photography gradually takes the viewer into a visually discordant shift from wide landscape photography and into a macro vantage point under water that graphically matches the landscape's topography with that of an alien world just beneath the surface. The analog design of the sequence was inspired by the cloud tank and apparition photography of Richard Edlund's work on *Ghostbusters* (1984), *Poltergeist* (1982), and *Raiders of the Lost Ark* (1981). Their work was conducted in a large water tank, dozens of feet in depth and diameter, while the tank used for *Prairie Dog* was a mid-sized aquarium (25 gallons) designed for home use, the spatial difference forcing a compromise of both material and design. While the original intent was to work with

smaller puppets and larger liquid and gel elements, the aquariums restrictive size forced a creative decision to be made.

#### 4.1.3 Process

An important aspect of Edlund's water tank photography was in using fresh water versus salt water in the experimentation. The two elements remain separate, lying on top of one another, allowing ink dyes and the like to be injected between the waters, creating billowing effects in the waters above. The limitations of the home use water tank forced an experimentation of materials to ascertain how different types and colours would mix or oppose, and how elements would perform in differing water temperatures. Careful interest was paid to how the elements carried weight in the water, some falling faster than others, some dropping through the surface and then catching the depth of the water and shifting unpredictably to the sides, and some ultimately never touching the bottom.



**Figure 3: *Poltergeist* (1982): cloud tank photography by Richard Edlund**

In addition to experimenting for performance in these elements, a casting call needed to be held to find the right personality for the sequence. Elements were actively screened for any perceptible evidence of a recognizable material. The materials needed to

behave like an alien life form, but their performance also couldn't be altered with post digital process. The performance needed to be its own ontological self without assistance from digital control or even the mechanics of the camera. A very light ink dye, when dropped down into the water, created a perceptible topography when photographed upside down in a blackened room, with a soft LED light alluding to daylight drifting through the surface of the water above. Different colours were experimented with to find the appearance of nature versus the appearance of industrial colouring, with white turning in the most believable performance for the environment. This was the essence of the analog process, never being able to completely control the presentation and performance of the elements, only being able to search for an image and a personality that the viewer could use for their own imaginative belief in the changing of this world.



**Figure 4: *Prairie Dog* (2014): water tank ink dye experimentation**

The final element added was a highly pigmented, red, prosthetic colouring powder. The high pigmentation had a somewhat miraculous effect in the cold water of the tank. Dropping it onto the surface, the powder would stay atop for a good ten seconds before the powder absorbed the water. At that point the pigment would sink, rather

rapidly, leaving a highly pigmented trail running erratically down to the bottom of the tank. This material became the number one personality of the sequence, performing antithetically to the soft, slow nature of the white dye. Together they created a fascinating underwater environment with the white dye reflecting the LED light to shelter the growing creation of the red pigment. For the final shot of the tank sequence, the temporal nature of the interactive elements was altered by reversing and speeding up the mechanics of the photography to create a more violent attachment to the real world, taking us back to the above water landscape. By speeding up the frame, the red pigment attached itself to the ceiling (actually the floor) so quickly, and displaced the soft white dye so well, that it could be visually perceived as infecting the outer world.



Figure 5: *Prairie Dog* (2014): water tank ink dye experimentation

## 4.2 *Sara's Night*: miniature creation and photography

### 4.2.1 Inspiration: *Psycho II* (1983) and *Poltergeist* (1982)

The use of miniatures and forced perspective drives the artist to visualize the elements in ways that instill limitations on the creation of an individual scene.



**Figure 6: *Psycho II* (1983): optical composite designed by Albert Whitlock**

The final shot of *Psycho II* (1983), designed by Albert Whitlock, was an inspiration for this aspect of the work. The shot did not contain miniatures or forced perspective but instead used evocative colour and imperfect optical compositing. By compositing Norman Bates in the fore, his image graphically dominates the house behind him, creating an impression of forced perspective. The optical composite of the clouds, while creating an aesthetically rich disconnect from reality, ultimately warps the perspective of the sky and creates a perceptual impression of a surreal environment. Within the optical composite itself, the line from the dark clouds to Norman and his house is quite unclear, leaving a transparent overlap across Norman's legs and the tree to his right. The imperfect nature of the optical composite creates a nightmarish surreality that would not have been present if the technical composite had been clean and adhered closer to the realities of the real world. One can observe how this inspiration was used for *Prairie Dog* by looking at the frame of Sara running across the screen with the clouds and moon dwarfing her on the horizon (Figure 10). Likewise, *Poltergeist* (1982) inspired the

aesthetic composites in *Prairie Dog* in both photographic plates with mattes and cloud tank footage. Richard Edlund once more used a great deal of cloud tank footage, chemically composited against anamorphic photographic plates, with the anamorphic nature of the lens creating a stretch in the water-based ink dyes and adding to the surrealism of the effect. Compositing real world elements against the surrealism of the cloud tank work create a terrific facture of analog creation in which the story is set. These establishing shots couched the family and setting under a blanket of optical, real world experimentation and imperfection that gave the unbelievable nature of the story gravitas.



**Figure 7: *Poltergeist* (1982): cloud tank composite by Richard Edlund**

Inspiration was drawn again from *Poltergeist* in Mike Pangrazio's matte painting creation for the hillside cemetery. The attempt in *Prairie Dog* was to envision the boundaries for the town of Sombra Hollow without being able to physically photograph the elements envisioned for the narrative. By using acrylic matte paintings to show Sara's breach of an old, broken fence line alluding to the outskirts of town, it allows the viewer to draw inspiration from the distantly designed vision of the town and to construct the setting in their imagination that was practically unavailable to the production. From a

narrative perspective, it brings the character from one world to the next, giving life to a vast and aesthetically diverse landscape that the creatures inhabit.



Figure 8: *Poltergeist* (1982): matte painting & final composite by Mike Pangrazio

#### 4.2.2 Design

The *Sara's Night* sequence was aesthetically designed to be the one sequence of principal photography that was actually shot at night, as most night sequences were designed to be photographed as day for night, and perceptually akin to the viewer's perception of night. This sequence was to stand apart from the others, as being closer to

the baroque style of early Hammer horror films with the artifice front and centre and the aesthetic design drawing parallels to the painterly.

The size of the lights employed for night photography, were intended to illuminate several hills across the landscape. Instead, due to their technical limitations, it opened up another opportunity to envision alternate ideas for the night journey beyond what was storyboarded. This involved shooting for an absence that would be filled by an analog-digital marriage in post-production. The original design for the sequence was only the introductory matte painting inspired by the graveyard matte extension for *Poltergeist*, but now additional ideas were needed. Ultimately, four additional shots were designed, extending the landscape with additional photography composites, miniatures, and atmospheric composites. The miniature element; the distant vision of the police station, was originally intended to be a photographic composite of both an existing building location shot against a day-for-night hillside. When the building could not be found, it presented an opportunity for an illusory creation through the use of miniatures.

#### **4.2.3 Process**

Each photographic plate needed to be blocked on set to allow for the matte paintings, planning for both directional space as well as for depth of frame. The RED camera system benefited this process with the RED software allowing detail thought to be completely washed out to be pulled from the shadows. Additionally, the amount of detail contained in a 4K frame allowed for malleability towards adjusting composition once the analog elements were added.

The acrylic matte painting was designed on a 27" x 41" illustration board, calculated for the width of frame appropriate to the 2.35:1 aspect ratio. A 4K still frame from principal photography was printed on matte paper stock and attached to the illustration board. Once the painting is complete, the responsibility to the analog effect is to photograph it to accurately represent its original colour and design, retaining the integrity of the work. Correspondingly, the painting is created to closely match the original photographic elements so the whole enterprise revolves around a reverence for the representation of the work.

To allow for the imperfect nature of the aesthetic design, the decision was made to work strictly with acrylic paints and brushes, instilling a slight addition of imperfection to the final paintings and giving the viewer more facture to digest and imagine. The final addition to the analog design of the paintings was in the use of water colour pencil crayons, as the facture that the pencil crayons induce is exactly what was needed to finish the illustrated works.



**Figure 9: *Prairie Dog* (2014): matte painting by C. Blake Evernden**

The essence behind the illusory success of acrylic matte paintings lies in the layering of elements and finding an imperfect dividing line between them. In planning for this, an overlap of the photographic border needed to be painted so that the division could be masked, in much the same manner as an optical printer would deal with a multiple exposure of film elements. Lastly, photographed smoke elements, shot against a black background for ease of compositing, were digitally layered over the entire image, leading the viewer to follow the smoke across the divide between the photographic image and the painting, effectively confusing them as to the beginning or end of each element.

A photographic composite from the middle of the sequence, where the lead actor, Sara, runs across the hillside from right to left, was created by rotoscoping the actor in order to create surreality similar to the *Psycho II* optical composite. This strategy produced a moonlit sky that graphically dominates over her. The clouds were co-opted from a day time photographic plate (hence the successful movement) and graded down to match the aesthetic of the original night photography, as was the still of the moon which was married to the cloud plate. Once more, controlled smoke footage was composited across the bridge between elements. This composite allowed the bright light of the moon to illuminate the smoke by masking it and fading it away from the light. This marriage of day-for-night, set photography, and optically composited smoke elements, engages the viewer to construct the world of the narrative just over the hill and beyond the edges of the frame.



**Figure 10: *Prairie Dog* (2014): optical composite – three photographic plates**

The final element of the sequence was the addition of miniature elements into the landscape. The success of miniatures lies in their painted detail being strictly calibrated for the illusion of distance an individual shot requires. They are not necessarily elements designed for close scrutiny, but rather, like matte paintings, are designed to give the impression of detail from an aesthetic distance.



**Figure 11: *Prairie Dog* (2014): miniature creation & composite**



**Figure 12: *Prairie Dog* (2014): miniature forced perspective daylight composite**

The miniature for the police station was designed by using three existing miniature building sets and then rearranging and gluing them together in a manner that created a distinct topographical shape for the horizon. Knowing that the building was going to be photographed to appear one to two hundred feet away from camera, painterly techniques were utilized that would exaggerate colour and texture so as to appear appropriate from a distance. This is a potential problem in the digital arena, as a digital model can be detailed realistically, but that detail does not necessarily blend imperfectly for distance photography. Consequently, the details of the digital model blend together in the aesthetic limitations of the human vision. What is needed is a visual impression that

allows the viewer access to his or her own imaginative rendering of the detail of a distant object.

The miniature was photographed outdoors to retain the effects of real light against the models, then rotoscoped and composited into the original hillside plate. Very slight motion stabilization was required because of a small amount of jitter that was present in the hillside plate that was not present in the miniature. This was a perfect instance of the digital marriage assisting the sale of the analog illusion.

The addition of the interior lights was obtained through rotoscoping the window elements and then placing a green screen element of the actor in the window, composited behind the model. When shrunken down to scale, the effect is one of feeling like the interior of the building is a livable area. The cognitive dissonance between the myriad of analog elements at play; miniature buildings, full scale green screened actor, and painterly style used to give the impression of detail from a distance, all conspire to allow the viewer the ability to marry the elements in their imagination and to appreciate the disparate creations used to create the final illusion.

The shots of the miniaturized police station were colour graded in order to blend the three levels of footage together effectively. Viewing the clouds around the hillside gives the viewer the impression of his or her eyes adjusting to the darkness of night and seeing more than he or she imagined possible. Because of the separate nature of these shots (medium shot of Sara versus her point of view), the aesthetic design is one of surreal departure.

### 4.3 *Train Depot and Into the Fields*: acrylic matte painting and compositing

#### 4.3.1 Inspiration: *Bram Stoker's Dracula* (1992)

When envisioning acrylic matte sequences that established new locations, a more flamboyant and fantastical use of mattes was studied in *Bram Stoker's Dracula* (1992). These matte paintings were not only inspirations because of their old fashioned painting and design, but also because of the ways in which they were used to open up an otherwise deliberate use of Hollywood back lot filmmaking.



**Figure 13:** *Bram Stoker's Dracula* (1992): matte painting by Mike Pangrazio

In the documentary “The Naive Visual Effects of Dracula”, Coppola states, “I don’t think it’s important that each of these textures or colors are really seen for what they are and how they were done, but they contribute to the overall strangeness of entering into an unusual world” (Coppola). There is theatricality to the presentation of these mattes, and a delight in the artifice of cinema and experimental illusion, rather than a calculated digital

design. The matte paintings created a distorted view of reality when combined in rear projection with live photography or masked for an in-camera illusion. The one area that digital cinema does not afford (at least at the moment) is the idea of in-camera effects that allow for imperfect experimentations such as double exposures. Instead, these types of illusory approximations are relegated to post-production which allows too much latitude for the artist to perfect the illusion. In response, the mattes were kept as pure and imperfect as possible in the face of this digital mediation.

#### **4.3.2 Design**

The matte design and process of creation for these three matte paintings were much the same as the previous matte work done in *Sara's Night*. Each of the mattes were originally designed to cover a distance, a mid-ground and a foreground element. However, in painting those elements and attempting the composite, it was noticed the illusion was dissipated in the foreground painting. When an element is perceived to be closer to the viewer, the viewer scrutinizes that element for the details that their eyes would be able to detect in an object that close to them. Thus, the illusion dissipates. The details of the painted matte are not designed to convince us of those types of details, or to allow the viewer access to extend it through their own imagination. The artifactuality of the painting works against the illusion, and not just because of obvious scrutinized imperfections (like facture of colour and brush strokes); the painting cannot accurately create an impression of camera focus and movement to convince us of the illusion. This imperfection brings the matte painting out of the background and into the foreground, above the plate photography, destroying the illusion.

In response to this unexpected result, elements from the foreground of each of the three mattes had to be replaced with photographed images in order to retain the analog aesthetic impression for the distance. Two landscape mattes, both from the *Into the Fields* sequence (Figure 14), needed to be handled in this manner. It was a fascinating discovery about how well the acrylic matte worked for the distant elements versus the foreground elements. Essentially, all the photographic elements are flat, two dimensional frames and yet the cognitive association is one where perspective and depth of frame are a reality. The flat frame quickly becomes a window into this world and that accurately explains why the acrylic impression would not work in the foreground elements: the focus of the viewer needed that photographic detail in the fore but doesn't require it in the distance.

Another matte, of the villainous character Dekker running into the fields, was photographed on a tripod but even this mechanical control yielded imperfect human movements. In addition to this, any photographic adjustment, tilting up, down or across a landscape, unexpectedly altered the x, y and z axis of the frame as it pertains to a given lens during principal photography. This meant that a camera move could be effectively motion tracked, but when the flat acrylic matte was composited into the background the camera move did not mesh because the matte had not been photographed with the same lens. The edges of the matte acted against the natural warp of the photographic element. This raised the understanding that the reason analog mattes were composited in still frames (as they were in the past) is because of these types of technological challenges. In addition, the cumbersome nature of acrylic mattes on glass photographed on location in past illusions necessitated the idea of this locked off camera.

### 4.3.3 Process

What was required to marry the flat matte with the photographed element was to undo the natural warp that the photographed element retains due to its lens type. Mathematical calculations were conducted to reverse the warp and flatten the image so that the motion could be accurately tracked. From here, a patch needed to be created for the photographic plate. From an analog perspective, the simple tilt and pan across the horizon would only necessitate the finished matte for the distance. However, this choice neglected to take into account the corners of the frame that weren't painted as a result of the camera move. The patch was created to extend the edges of the photographic plate just enough to bring the viewer into the acrylic matte work. Once this move was successfully merged, the matte was used as a baseline for the colour and texture of the frame. Another photographic plate was utilized to replace the foreground elements of the matte and complete the motion tracked move.



Figure 14: *Prairie Dog* (2014): matte painting by C. Blake Evernden

The final elements that were needed to sell the illusion were to add a sky to the matte and to animate the water. There was a reliance on existing photographic plates of clouds in order to assemble a distant sky that married, aesthetically, with the horizon of the matte. In the past, mattes were either painted on glass and photographed with an infinite depth of field, on location and composited in camera, or else the matte was created when the photographed plate and the painting were composited chemically. In both these cases, the imperfect and brilliant addition of backlight was used to create the merging of these shots. In camera effects utilized the sun while the optical printer processed according to the exposure time required, burning light through the two pieces of film to bring them together. *Prairie Dog's* mattes, while photographed in the best manner possible, had no additional light available to be pushed through them. The imperfect photo chemical process wasn't around to give the skies the light they needed to sell them as sunlit realities. Consequently the additional photographic elements were needed to replace the painted skies.

The animation of the water could not become a purely digitized variation as it would not marry aesthetically with the analog nature of the mattes. The amount of water in frame demanded a degree of displacement when viewed from the mattes aesthetic distance so a subtle computer generated variation of light was created that worked with the matte painting, giving the illusion of movement. The result ended up being another imperfect marriage of the analog and the digital that did not completely mesh to one another, but rather made for an uncomfortably interesting confluence of ideals.



**Figure 15: *Prairie Dog* (2014): matte painting by C. Blake Evernden**

The third matte was created for the opening shot of the *Train Depot* (Figure 15). The original intent was to paint the train into the shot as well, but this would have resulted in treating the matte in much the same manner as this thesis argues is contrary to the selling of an illusion, “that realism is produced by a negotiation between contradictory elements” (“A Film Aesthetic to Discover” 57). Therefore, a plate of the train was photographed in order to more effectively sell the foreground as a reality. As with the *Dekker* matte, some optical compensation was required, not because of a camera move but rather because of the wide angle perspective of the original acrylic mattes’ design. Smoke elements were then layered and angled to marry with the train photography and to add distance the frame by layering smoke behind the train plate, and behind and in front of the platform.



Figure 16: *Prairie Dog* (2014): matte painting by C. Blake Evernden



Figure 17: *Prairie Dog* (2014): green screen and smoke element composite

The remainder of the *Train Depot* sequence was a negotiation of green screen elements and layering in the appropriate smoke elements to believably link those shots to the establishing matte. Working with the green screen elements involved negotiating an imperfection of the digital keys and rotoscoping that would create a uniform personality to the sequence. Ultimately, that balance was found in the use of the layered smoke elements. At a certain point in the sequence, the smoke elements change from naturalistic into romantic. The whole aesthetic identity of the steam engine and the painted, wooden platform plays into this romantic visual aesthetic of classical Hollywood design, and the

smoke elements not only helped to sell the green screen, they absorbed the viewer in the artifice of these types of old Hollywood train meetings. This green screen aesthetic also carried over into the driving sequences immediately following the *Into the Fields* matte painting. The artifice and artifactuality of both the painting and the corresponding green screen composites worked hand in hand to complete this effect.

#### **4.4 Beast at the Door / Bleeding Tree: absence in design**

##### **4.4.1 Inspiration: *The Wolf Man* (1941) and *Jaws* (1975)**

Anyone who knows the history of *Jaws* (1975) knows that the shark was designed to be shown a great deal more than what ended up on screen. Because the mechanics and performance of the shark ended up being unmanageable, Spielberg was forced to find ways of making the absence of the shark more terrifying than its presence. Likewise with the original *The Wolf Man* (1941), the makeup by Jack Pierce was sound and impressive, but the story dictated that the transformation to wolf of the doomed Larry Talbot was to be dreaded, not anticipated. The absence of these creatures, and a fleeting glimpse of them, became more exciting and terrifying than being forced to confront them would be. With the advent of digital animation and mattes, the use of absence has been relegated mostly to independent film works as the current style of large scale filmmaking is to never leave anything to the imagination. Even though a digital effect often can convince aesthetically, the option of absence needs to be considered for the constructive engagement of the viewer to continue.

*Prairie Dog* draws, both thematically and aesthetically, on the age old fear of the dark. In *Jaws*, the beast is a night feeder and in *The Wolf Man* the beast is controlled by the light of the moon. The setting affords both films the opportunity for the use of light and shadow to manage what the viewer thinks they can see off in the distance or through the mist of night. Of course, *Jaws* does not succumb to only feeding at night, but its most effective use of absence is in those moments particularly during one sequence on the docks. Because of the technical impossibilities of shooting on location on the shores of Martha's Vineyard at night, Bill Butler chose to shoot day for night to be able to see further into the waters. In addition to this, the ineffectiveness of the mechanical shark necessitated that Spielberg had to find a way to allude to its presence rather than show it. This was accomplished by using the dock itself as a signal of the shark's approach. After the dock is ripped apart and one of the men is dragged into the water, the broken dock turns around and comes back to shore, signaling that something is approaching from beneath. This image is infinitely more frightening because the viewer's imagination is almost entirely constructive of that beast.



**Figure 18: *Jaws* (1975): directed by Steven Spielberg – photographed by Bill Butler**

With *The Wolf Man*, the sequence of the first night at the cemetery is equally dispassionate in both its camera choice and its stark photography. The first transformation takes place from the knees down, so when the creature stands and begins to walk on its toes—in an uncomfortable marriage of man and wolf—we are equally afraid of and anxious to see what the rest of the beast looks like. The black and white photography through the mist of the stylized, back lot wooded area helps to merge with the shades of his wardrobe and makeup, leaving nothing to him but texture and highlight. Even when the wolf man is revealed from behind the first tree, shadows cross his face deliberately, cutting across his chin and chest and softening the sides of his face. The camera effect is helped by the onset production process rather than trying to recreate or estimate a real world lighting scenario within a digital environment. The imperfect marriage of light, photography, production design, special effects elements and makeup design are what create this aesthetic design, rather than one isolated design element.



Figure 19: *The Wolf Man* (1941): directed by George Waggner – makeup by Jack Pierce

#### 4.4.2 Design

The design of the *Beast at the Door* sequence explores the absence of the monster using light, shadow and atmosphere. By default, the creature puppets and their functionality, much like *Jaws*, limited their use on-screen. Ultimately, though, it had to be determined how to convince the audience of the creature's presence using the absolute minimal amount of screen time.

For aesthetic design, the entirety of this sequence was photographed as day for night. This necessitated a few creative amendments such as shooting away from windows where daylight may spill in, and generally controlling the light from outside. The original plan for the sequence was to use flashes of on-set light to mimic lightning flashes and then allow the over exposure of those flashes to be an imperfect photographic element

within the film. Unfortunately, the digital cinema process on many cameras uses a rolling shutter in the exposure of its sensor, allowing light in through a rolling fashion. The consequence of this is that quick flashes of light do not register against the sensor in consistent bursts, but rather in erratic half frames of light that aesthetically appears as glitches. These flashes of light were instead handled in post-production, using the existing daylight photographed footage to alternate for flashes of lightning, which assisted in the creation of the shadow play using the analog puppets.

A key aspect for selling the absence of the beast was in designing wide shots that hid nothing from the viewer. This removes the perception of visual manipulation, keeping the camera dispassionate in much the same manner as *Jaws*. Each shot was designed to remain impartial to the scene and to give the actor as little narrative visual assistance as possible before the beast shows itself. The open frame allows the viewer to be able to freely look around for the impending menace.

Halfway through the sequence the focus shifts from the objects of our heroine's attention to the features of the environment that she's ignoring. The camera begins by being focused on Tania on the phone in the foreground, hearing nothing but static, and then slowly shifts focus to the front door in the background behind her. The compression in the depth of frame forces the front door closer, essentially taking the place of the unseen monster. The following shot underlines this fact as Tania peers out into the living room in a close up before being pushed back against the wall and diminished in the frame as the beast makes its first appearance.

### 4.4.3 Process

The only reveal of the beast, more or less in its entirety, is through Tania's point of view of the rural street from her bedroom window. The shot was designed to keep the viewer at a distance and to wait, or perhaps dread, the flash of lightning that would illuminate the street and our vision of the beast growing closer.

The original design of the beast for this shot was a 1/16<sup>th</sup> scale, full body rod puppet that was designed to not stand up to as close scrutiny as the full sized beast would. Due to functional complications, the scale puppet could not perform as intended, therefore a compromise had to be reached that would require the use of digital character animation. This unexpected turn of events presented an opportunity to layer, observe, and detail the digital character within a photographic and analog illusory environment; a miniaturized construction of the night street. The digital character was turned over to a group of three-dimensional animation colleagues who would use many illustrations, photographs, and sculpts of the original design work as reference to assure a smooth transition from analog to digital creature. The marriage of a digital creation within a scale miniature environment was another example of the cognitive dissonance the viewer could draw inspiration from to flesh out the foreground and background illusory relationships. A miniature street environment of six to seven houses, populated with old fashioned streetlights and trees, was created on a sheet of glass and photographed with a very shallow depth of field. A rural road miniature was constructed and photographed as a separate plate, allowing the digital character to be more effectively integrated into the environment, by sandwiching it between two realities of analog imperfection.

The final aspect of the sequence, and the heart of its aesthetic design, is in the shadow play between Tania and her unseen assailant. This moment was designed to bring the surreal to the fore as we drift into the mind of a young girl and experience her fears as she imagines them. In the reality of the scene, the view the beast can only be seen through the small window above the doorway. The shadows that cross and threaten to break free of its two dimensional realm and harm the girl from outside of its shadowy form, were inspired by the shadow play at work in *To Kill a Mockingbird* (1962). In an early scene, Jem, Scout, and Dill sneak up to the back of the Radley house to get a glimpse of Boo, but instead are confronted by the shadow of Boo crossing behind them, more large and menacing than they could have ever imagined. The shadow, as a two dimensional film aesthetic, is more of a threat than the three dimensional reality just outside of the frame.



**Figure 20:** *Prairie Dog* (2014): puppet shadow composite



**Figure 21:** *To Kill a Mockingbird* (1962): directed by Robert Mulligan – photographed by Russell Harlan

The shadow elements were photographed using a full scale puppet creation with a small hinged jaw and constructed teeth, working to create a silhouetted personality that could convince of weight and intent without giving away too much animalistic menace or villainous intent, in much the same way as the Boo Radley shadow. The shadow had to dwarf our heroine but the personality must be at the disposal of the individual viewer, so the absence of direct intent is implied in their imagination, possibly in tandem with our heroine's.

The final crafted element for the sequence was the creation of the storm barreling towards the Coleman house. Cloud creations were formed within a water tank, and chosen aesthetically because of its surreal and alienist movement, contrary to realistic, photographed cloud movement. After pushing, flipping, and layering the cloud footage, the last element needed to sell the surreal nature of the scene was a shadow of the storm clouds crossing the ground underneath them. Not wanting to confuse the depth of frame, instead it was chosen to keep the focus on the clouds themselves using the alpha channels of the cloud footage to reverse engineer a shadow formation and then adjust the perspective on that footage so that it matched the topography of the photographic plate. The final composite of the footage is a deliberately jarring aesthetic from the previous interior scene, designed to thrust the viewer into a surreal, nightmarish landscape in which to let loose the beast upon our suspecting protagonists.



**Figure 22: *Prairie Dog* (2014): cloud tank composite by C. Blake Evernden**

A separate segment—but a related method—was the process of creating the *Bleeding Tree*. A daylight moment of visual surrealism was designed during principal photography, and framed as a visual idea of the kids walking past an unexceptional tree

and the girl laying her hand on it for a moment. The moment of her passing creates a physical reaction in the forest, causing it to bleed a dark, viscous liquid.

To achieve this effect, a 1/8<sup>th</sup> scale version of the trunk was sculpted as it appeared on camera and then molded and cast in white resin. Four holes were drilled through the sculpture and rigged at the back of the trunk with tubing to inject darkly coloured syrup through the tree. The sculpture was displayed outside for effects photography, and manufactured so that it could be mounted right side up or upside down. When properly framed, and given the specific topography of the model, the dark syrup could be injected through the trunk and convincingly run the edges and valleys of the tree sculpt until it exited the frame.



**Figure 23: *Prairie Dog* (2014): 1/4 scale resin sculpt composite**

The white of the resin of the model was keyed out in post, leaving only the dark syrup visible. When properly aligned with the original footage it appeared that the fluid was running over and down the original tree. By reverse mounting the sculpture and flipping the footage in post, the composite appeared as though the fluid was defying gravity and running up the outside of the tree as well. The cognitive dissonance of gravity

acting in two manners at once was enough for a simple analog trick to imply a whole host of strange goings-on within the landscape and the viewer's imagination.

#### **4.5 *Forest Chase: creature work/articulation***

##### **4.5.1 Inspiration: *American Werewolf in London* (1981)**

Following in the footsteps of the previous section's use of absence, an aspect of the success of the analog creature's behaviour lay in the fragmented appearance of its actions. A lot of this fragmentation was due to the expected limitations of the puppet's performance. The specific inspiration for this framing and performance was *American Werewolf in London* (1981). Makeup artist Rick Baker and director John Landis pushed the four-legged creature into credible action by using aspects of its performance—its face, eyes, and teeth—masked behind shadows, crowds, or corridors. A lot of the full creature effects rely on a restrained vision of the character and small range of motion to imply a whole host of off screen performance and personality.

Looking at *American Werewolf's* use of absence and fractured views of its creature's beastly personality, one notices that the design and puppetry of the analog creation dictates the design and framing of each sequence. Once again, the abilities or limitations of the analog effect forces a creative decision to be made. In the subway pursuit sequence, the creature is first alluded to by its haunting growl echoing up from the distance. Shot from the commuter's perspective, the viewer cannot tell if the sound is coming from the side tunnel, the stairwell, or the train tunnel. All options are open, making the viewer constructive of their own fear. From here, we follow the commuter as

he makes his way out of the tunnels, taking the first of two escalators, all the while looking behind him. The viewer wants to see what the commuter sees but Landis won't let him, not yet. The next aspect is when the creature catches up to the commuter, slowly peering round the corner through the beast's point of view. Now we know where the creature is and, because of the lowness of the camera angle, *what* it is. In the final shot, the viewer watches from a high angle as the commuter lays helpless. Gradually we see the beast walk into frame in the far distance, and that is as close as the viewer is allowed. But the impression of that monster is enough to piece together a complete monster with what was previously shown during the much vaunted transformation sequence. The viewer constructs the movement and personality of that creature and the filmmakers invite them to do so.



**Figure 24:** *An American Werewolf in London* (1981): directed by John Landis

#### 4.5.2 Design

While using the inspiration of *American Werewolf*, each shot of *Forest Chase* was storyboarded and shot for the edit; therefore, what was viewed of the creatures in pursuit was only what was absolutely necessary to construct. In the location photography, a stunt version of the creature was created with a limited range of motion that gave the actors something against which they can perform.

The baby creatures were sculpted at full size, determining that only one version was going to be necessary for the production. There were two instances where the stunt creature was used in the chase, the first being in a visually fractured manner through thick grass, rushing after the children. This was shot with the puppet tracking through the grass in three or four passes, with the knowledge that only sections of one or two passes would be used for the final edit. The second section was dealt with late in the chase when Carey is playing cat and mouse through the tall grass and the creature rises up over his left shoulder. This vision was photographed in deliberate soft focus, just off to the edge of frame, so that the viewer's attention shifts from Carey's face in the foreground to the creature rising up as a dark form in the background (Figure 26). The stunt creature was only used on-set to allow a bridge between the actors and the creatures intended to be photographed separately for the edit.

An important element in selling the geographic positioning of the creatures, and thus allowing them to be seen in fractured glimpses, was the design of the creature's point of view. In creating this vision not only was it important to create a clear, alien viewpoint, but there was also an opportunity to alter the aspect ratio of the creature's field

of view. Given the design of the creatures, and their bulbous, outwardly positioned eyes, a blurred wrap was added to their field of vision, as well as an elongation of that field beyond the 2.35:1 aspect ratio of the film to 2.76:1, the same ratio as Ultra Panavision 70. Inspiration for this aspect ratio change was drawn from Douglas Trumbull's work on *Brainstorm* (1983). The original footage was processed through multiple passes and graphic extensions, searching for a marriage that was between heat vision and reality. The changed aspect ratio, partnered with the silvery sheen of the heat vision and the warped blur at the edge of the frame, interacted with the footage to properly sell the presence of the creatures in pursuit. The use of this vision was an age-old monster movie and slasher film trick: to position the viewer within the monsters skin. This positioning allows the viewer to imagine its gait, its personality, and its general mechanics of movement, while never showing its exterior in motion.



Figure 25: *Prairie Dog* (2014): 2.76:1 creature vision design

#### 4.5.3 Process

Following the storyboard plan, the *Forest Chase* called for quick interjections of the full creature, to portray brief impressions of their visage and energy. Its appearance

on camera needed to mirror how little the protagonists saw of it throughout its pursuit. With this in mind, using the original sculpt and mold of the stunt creature, but planning a more intricate interior structure that would allow a personality of performance to come through, a more detailed hand puppet was created with a mid-density foam interior and a silicone skin.



**Figure 26:** *Prairie Dog* (2014): baby creature sculpt in wet clay



**Figure 27:** *Prairie Dog* (2014): baby creature puppet photography

Many constructive aspects didn't go as planned and diverted the process into a new visual development. The creation of the foam puppet contained less facial performance than originally intended and the weight of the silicone made that puppeting performance difficult. Consequently it no longer contained the flexibility and personality that was required for the running aspects of the chase work. Falling completely in line with this thesis' method of study, this diversion lead to the commission of digital characters to be created for the more active aspects of the characters performance.

As with the work on the Dekker matte painting, a degree of optical compensation had to be massaged when incorporating the digital characters into the plate photography, particularly when working them into intense camera moves such as the low angle and track backwards of the creature racing after Carey. The optical bend of the camera and the blur of the background edges needed to be replicated in the digital counterpart in order to keep it as aesthetically a part of the photographic, rather than sitting above it. Another digital addition that was required was one of matching grain from the original photography into the digital work. This is the type of attention that is required to sell the digital as a reality and not simply as an animation. The grain of the background photography had to be emulated by the software program and acted upon the pristine digital character. The integral issue of this type of detailed mimicry is that it is all an approximation of a chaotic, analog reality. In order to retain as much analog life in these quick moments, restraint had to be maintained by not deviating from the original framing of the shots and not adding digital movement or shake in order to sell the perfect as

conceivably imperfect. The digital character work still needed to be subservient to the analog and photographic base of the sequence.

Quick, percussive cutting actually works in favour of these digital elements, leaving the viewer with only the impression of an image and the frequent shallow depth of field needed to convince of a real object or person, but as mentioned previously it is not often a necessity of the digital design. The perfective sharpness and detail of the digital image requires even less of an impression on the viewer than its analog counterpart. When an image is afforded a moment of stillness, it is only then that the viewer recognizes its inherent perfection betraying its realism. An unforeseen aspect of the digital incorporation was in the alienating movements that the digitally animated figure creates. In one sense, the very unrealistic movements of an unrealistically perfect character creates a cognitive distortion that, when applied in fragments of vision, has a terrific digital facture of its own. The digital facture is the best representation of the artist's work coming through without the machine smoothing out the harsh edges. In this wedding of a digital character in these moments, the imperfect processing of the animation, and the limited, pre-designed frame of the narrative, allowed for an impressive tug-of-war between visions of analog and digital cinema, and added another moment of illusory dissonance for the viewer to feed through their imagining of the creatures existence.

## **4.6 *Creature Dines* and *Final Confrontation*: analog and digital character work**

### **4.6.1 Inspiration: *Fright Night* (1985) and *Alien* (1979)**

*Fright Night* (1985) uses optical composites and matte extensions from its opening frames, which establish the neighbourhood and immerses the viewer in an aesthetically analog world. In a sequence from the last act of the film, where Evil Ed confronts Peter Vincent, Evil is rendered through prosthetic makeup effects and the performance of the actor, with the messiness of the actor's use of the harsh oversized teeth, drool, and shine, all registering as in-camera effects. The following transformation into a wolf is done in absence, through sound design and the point of view of Peter from the hallway. While knowing that this transformation could not have taken place on-camera in the narrative time frame, the absence of the effect leaves the viewer to imagine the transformation as magical and not physical. Additionally, an old fashioned use of painted frames is used for the moment of the wolf snarling towards Roddy McDowell, eyes glowing red. The shakiness and imperfect placement of this effect is not a piece with the more physicalized effects, but the aesthetic of it is in keeping with the optical work throughout the film.



**Figure 28:** *Fright Night* (1985): creature designer **Randall William Cook**

The next section of this sequence is the inelegant transformation back from wolf to man, with the character dying during the transition. The first element is that of a crude puppet of the wolf, struggling with the stake through its body. The inelegance of this puppet, having no control of its back legs or head, creates empathy for the creature purely through its limitation of movement. The limitation of the effect assists in the broader narrative ideas. Following this moment, the creature drags itself into the shadows, increasing the viewer's anticipation of what he cannot see. Fractures of the creature's paws stretching back into the shape of human feet and a liquefying moment of a hand forming from nothing are shot in a reverse, in-camera effect, creating an otherworldly simplicity.

The next stage of the transformation is an off-camera trick where one prosthetic hand holds the stake in close up, and then drops out of frame. In the same shot, the next time the hand is raised into frame it is almost completely human. The viewer has constructed the remainder of that transformation by themselves and the creation of that vision is what keeps them engaged throughout. The character goes through two more

brief off-camera changes of prosthetic makeup before dying, leaving the viewer with the last optical change, the scar from the creature's head disappearing. This effect, done through a photochemical process, adds one last level of imperfection to this sequence to complete the analog immersion established at the beginning of the film.

In *Alien* (1979), absence and framing were paramount in the presentation of character of the alien. As with all of Ridley Scott's work, the physically real imperfection of his production designs at the time of principal photography were what sold his cinematic world. The introduction of the monster is through a majestic design of real world steel and grime and a shower of overhead water runoff. The directional lighting and real world effects elements push the look of the creature so that its performance is one of its physicality reacting to the outside elements rather than the actor's performance.



**Figure 29: *Alien* (1978): directed by Ridley Scott**



**Figure 30: *Prairie Dog* (2014): creature reveal inspired by *Alien* (1978)**

#### **4.6.2 Design**

The analog work in *Creature Dines* (Figure 27) and *Final Confrontation* is a direct off-shoot of the practical creature attempts for *Forest Chase*. The design of the beast was originally a 1/16<sup>th</sup> scale full body rod puppet (see *Beast at the Door*) and a separate full size head and neck puppet fabrication. As detailed previously, the rod puppet design proved unwieldy in creation and performance; therefore, a digital counterpart was created as a substitute. Just as scale puppets and miniature creations are

detailed and coloured in a manner designed for distance perception, the digital variant has to be conceived in the same manner. The idea behind this is to create an impressionistic vision that the eyes perceive in blocks of colour and texture in order to sell the impression as reality. This full body avatar will retain this design aesthetic by simplifying the overall texture and detail of the creation in a way that is best viewed and performed from a distance.

As with the majority of the analog creature creations, a degree of industrial fabrication, engineering, and mathematics were required to execute the creation of the full size head-and-shoulders beast. What was necessary, ultimately, was to be able to view and study the facture of both the analog and the digital, in narrative context, in order to study the perceptive differences of the imperfect versus the digitally perfect. Having to include the digital counterpart within the performance in *Final Confrontation* simply made the study between them more clear. With the inclusion of the digital character, the analog needed to enfold it in a workable frame in order to better sell the illusion of one being a part of the other.

#### **4.6.3 Process**

The editorial process of *Final Confrontation* involved cutting between storyboarded frames without the benefit of a performance leading the editing decisions. The loose final edit was one of editing between actors staring into the vast distance of the location without any creation upon which to act. The original intention was to have the beast on-set for the actors to play from and to photograph that creation in the imperfect light and atmospherics of that specific day. The way the creation responded to its

environment was to be the ultimate display of its artifactuality. Because this did not come to pass, the decision was made to composite the analog creations into the existing plates, shot against a green screen with the intention that the analog aesthetic would be preserved in the marriage of these two pieces of photography.

The use of the digital counterpart led to limiting the on-camera performance of the creature, possibly more than was originally intended. The aesthetic perfection of the digital rendering, because of its sharpness of unmediated detail, requires less time on the screen to make the same impression as the analog. Concealing the beast in front of the lead actors, and limiting the audiences view of it in general, allowed the narrative to rely instead on the characters' reactions to it. The simplicity of the analog design of the creature would have allowed the viewer a greater opportunity to project their own performance for the beast onto its fairly immovable visage. The benefit of the post production digital creation is counteractive to the limitations of the analog idea. The limitation on the narrative process necessitated the choice of certain camera angles and focus pulls, *dirtying up* the frame with the actors and existing foliage. Without these limitations, a host of what ifs had to be drawn upon in order to create an approximation of what would have been a parade of analog imperfectness. The process of having to incorporate digital creations within an essentially analog narrative study was an appropriately imperfect crown on a difficult piece of research. There were moments throughout the study, where the opportunity to control the illusory aspects through digital manipulation was possible. However, to force control into a study of imperfection would have been an inherently hypocritical response. In the end, the introduction and ongoing

study of the digital and analog elements, working to find an organically supportive ground, helped to lead to a much more balanced vision of the project.

## 5. Conclusion

For the 2007 film *I Am Legend*, Steve Johnson was originally commissioned to design and implement the prosthetic character designs of the Infected for the film. With the design complete and test footage filmed (now widely available online), his designs were jettisoned in favour of the control of post-production digital animation. David Ansen of *Newsweek* wrote “When they start clambering up the sides of buildings with implausible superhuman agility they begin to look exactly like what they are: herky-jerky computerized effects” (par.4).



**Figure 27: *I Am Legend* (2007): digital character animation vs. Steve Johnson’s animatronic silicone makeup**

Results such as this bring to light the exact marriage that is needed between the digital and the analog. Cinematic illusions are not the product of a single element or a single manner of presentation, but rather produced by a negotiation between contradictory elements (“A Film Aesthetic to Discover” 57). Illusory technology needs to negotiate an imbalance of production elements in order to affect a more heightened and immersive impression of reality. When one cinematic art form begins to trump others for

its own visual gains, the viewer ultimately turns away. Absence and imperfection are an essential aspect in the sale of visual illusions within the cinematic landscape.

The cinematic link to reality is a fabrication, no matter the medium, but the trick is to keep the viewer engaged at all visual levels. The claim for the real that cinema pursues is not the product of a single element or a single manner of presentation. Technology has distinguished the cinematic arts throughout history by negotiating a balance or imbalance of production elements in order to affect a more heightened and immersive impression of a given reality: “Through reduction, whatever is given on the screen must be bolstered by all that is absent,” Andrew claims (“A Film Aesthetic to Discover” 59). This is true of *Prairie Dog*, where the impression is one of analog crafted representation, married to a digital process, and calculated so that the visuals reverberate in their passing, allowing the audience to identify with, appreciate, and complete the image for themselves.

Cinema is based on real world relatability, not just in narrative understanding but in the understanding of how cinema is constructed as well. The facture of the analog art form invites the viewer into the process of cinematic craft, asking them to assist in the imagining of the cinematic landscape. The introduction of imperfect analog elements into this digitally mediated cinematic environment, creating impressions of reality and an absence of explicit visual detail, conspires towards a reengagement of audience collaboration. Wollheim’s term of “twofoldedness” states that the reflexivity related to the analog elements puts into play an engagement with the viewer in much the same way one would regard a piece of visual art in motion (46). The collaborative nature of the

viewer standing before a work of art, where the individual meaning of that work is created by the act of appreciating and imagining, is where the art of illusory cinema thrives.

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