Shoestring Theory: Pragmatism and Bricolage in Microbudget Feature Filmmaking

Stuart James McBratney
BVA FTV Prod (Hons) (Brisbane)

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Stuart McBratney

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ABSTRACT

In this exegesis I argue that the filmmakers who have enjoyed the most success in creating ultra-low budget feature films are those who most successfully practice pragmatism and bricolage. I support my argument by analysing several ultra-low budget films to find a common approach, and by cross-referencing my own observations with filmmakers' production journals, interviews, and writings. To investigate the lived experience of the microbudget feature filmmaker, I wrote, financed, produced, directed, acted in, edited, scored, and mixed such a film myself. My resulting work, *Pop-Up*, is the embodiment of my tacit knowledge of pragmatism and bricolage, and this exegesis presents my explicit knowledge of the filmmaking experience. This creative work and exegesis is intended to fill a gap in the knowledge of these principles and their practical application. It aims to provide a formal understanding of how the methods and theories of pragmatism and bricolage can be applied to feature film production, particularly where the filmmaker is working with limited means.

DEFINITIONS

The title of this exegesis, *Shoestring Theory: Pragmatism and Bricolage in Microbudget Feature Filmmaking*, requires the definition of the terms: pragmatism, bricolage, microbudget and feature film.

Pragmatism

The term "pragmatism" has two definitions. One is used in everyday life, and the other is from the philosophical domain. In a colloquial context pragmatism is a utilitarian attitude towards challenges; *Merriam Webster* online (2017) defines "pragmatic" as "relating to matters of fact or practical affairs often to the exclusion of intellectual or artistic matters: practical as opposed to idealistic". The philosophical definition takes this precept of flexibility and applies it to a belief system. Charles Sanders Peirce, considered the originator of this philosophy, describes it as an approach that evaluates theories or beliefs in terms of the success of their practical application — a flexible, subjectivist, relativist worldview offering distrust for theoretical abstraction or ideas that

aren't connected to practical, real-life workability (Hicks 2010). Despite the overlap in philosophical and colloquial definitions, I use the word in both contexts. This exegesis explores how pragmatism, when applied to filmmaking, advocates a filmmaker attempting to make a good film, rather than a perfect one.

Bricolage

As with pragmatism, bricolage has both a philosophical definition, and an everyday definition. In *A Savage Mind* (1966), Claude Lévi-Strauss describes bricolage in a sociological context, whereby a society uses different elements of existing philosophies to create one more suited to their environment and customs. The everyday usage of the term can be summed up through its etymological foundation, in which

bricolage comes from a traditional French expression which denotes crafts-people who creatively use materials left over from other projects to construct new artifacts ... This mode of construction is in direct contrast to the work of engineers, who follow set procedures and have a list of specific tools to carry out their work (Rogers 2012, p. 1).

In the context of filmmaking, I investigate both definitions. The nature of microbudget filmmaking demands invention and assembly from an assortment of obtainable locations, props, equipment and personnel. It involves a filmmaker surveying their means, and then constructing a story accordingly. In practice this involves using available indoor and outdoor locations rather than building sets, placing the narrative in a contemporary world rather than the past or future, and limiting props to those which are easily accessible. The philosophical definition of bricolage informs the practice. While the philosopher might look at bricolage as a way of incorporating various belief systems into a coherent and more practical framework, so too the microbudget filmmaker can substitute themes, styles, and semiotics into this equation – sculpting a film based on whichever ideas and techniques are most suitable without significant expenditure.

Microbudget

"Shoestring", "microbudget" and "ultra-low budget" are interchangeable terms. In the context of feature film production, films made for approximately US\$60,000 or less qualify for being microbudget productions in this exegesis. I have chosen this figure as it is the greatest budget of the three case studies I have selected for this study, and my own film *Pop-Up* fits within this paradigm. This figure does not include deferred payments or marketing/distribution costs. In some cases, a studio may acquire the film and invest additional funds to improve technical aspects and attain theatrical distribution standards. For example, Robert Rodriguez (1995) outlaid a mere \$7000 to make *El Mariachi*, but Columbia pictures then spent \$250,000 before it was deemed suitable for release.

Feature Film

While the definition of "feature film" varies, I have chosen to follow the guidelines of the US Screen Actors Guild, which denotes 80 minutes as its qualifying length (Low Budget Agreement 2005). My case studies all fall within this definition.

THE CREATIVE WORK AND ITS EXAMINATION

Using practice-based research I have conducted an original investigation into the process of making an ultra-low budget feature film titled *Pop-Up*. I have gained new knowledge through the practice of making the film, and have detailed the outcomes of that process. Through my practice and exegesis, knowledgeable peers are able to access and audit the results, and my claims of originality and contribution to knowledge are demonstrated through the resulting work. During the process of research, action and reflection, my work has been informed by other established academic scholars, as well as other professional filmmakers. My creative outcome has been informed by my scholarly inquiry, in combination with my tacit knowledge of film production. Additionally, I have investigated case studies of ultra-low budget feature films that demonstrated use of pragmatism and bricolage in their production.

I wish to claim that I have made an original contribution to the field, demonstrated through the original creative work, and its international impact. While the significance and context of my claims are described herein, an understanding of my contribution to my field and its impact can only be obtained through direct experience of the creative outcome – by viewing the film *Pop-Up*. The international impact of the work includes official selection at 18 international peer-assessed film festivals, representation in Hollywood by a leading agent, and having the subsequent opportunity to write and direct a Hollywood film with a multi-million dollar budget, starring internationally recognised talent.

My exegesis provides a substantial contextualisation of my creative work, which demonstrates the ways in which my "theory and practise [are] inextricably linked and mutually dependent" (Stewart 2003). This exegesis locates the original work in its scholarly field, analyses the field and its practices, and offers a critical appraisal substantiating my claim for the originality of my contribution. Through this process, the creative work and exegesis provide evidence of meeting the scholarly and practice-based requirements to advance knowledge in the field, showing doctoral-level analysis, and mastery of existing contextual knowledge.

Shoestring Theory covers the elements and principles of design in microbudget cinema. In this case, "design" does not literally represent creation of a blueprint, or the arrangement of pixels in Photoshop. Instead, I am referencing project design – the creation of a feature film from conception to completion – and the techniques and thought processes used in its production. Richard Buchanan (1992, p. 5) notes the evolving definition of "design":

The variety of research reported in conference papers, journal articles, and books suggests that design continues to expand in its meanings and connections, revealing unexpected dimensions in practice as well as understanding.

Research conducted from an inside perspective can be labelled "emic", whereas that conducted from an outside perspective can be labelled "etic" (Morris et al. 1999, p.781). Film analysis is typically written from outside the production process, in which a critic or academic interprets a completed work. Such etic knowledge is sufficient in a standard

critique, as a filmmaker's production issues should not be factored into an assessment of a film; a critical assessment of Werner Herzog's *Fitzcarraldo* (1982) should not factor its arduous production into an assessment. Yet Herzog's on-set problem solving presents a wealth of knowledge rarely assessed in academia. My exegesis is an attempt to fill this gap – to investigate the lived experience of the film director to provide an emic perspective in the film conversation.

Pop-Up had its World Premiere at the TCL Chinese Theatre on Hollywood Boulevard in June 2016 at the nineteenth Dances With Films Festival, and at the time of this writing, has screened at 18 international film festivals in Germany, the UK, the US, the Philippines, Spain, Cambodia, Barbados, Romania, Australia, and India, winning awards at four. It has been acquired for international distribution by Lemon Tree Media, China. The success of the film has led to my being represented at the highest level in Hollywood, and I have received an offer to direct my next film on a \$2M budget based on my own screenplay. *Shoestring Theory* is about this journey.

Pop-Up is my second feature film as writer/director. The film was completed in May 2016, and mastered in 4K resolution with 5.1 surround sound. My key roles were writer, financer, director, producer, editor, sound designer and composer. The shoot consisted of 50 days of filming stretched over 24 months between 2013 and 2015, across ten production blocks. Each block was between one and tens days in duration. Most of the cast and crew members were interns, and a small number received a minimum union-rate payment. Equipment was mostly borrowed, or hired for a reduced fee. Post-production was conducted at three separate tertiary institutions, plus one professional facility offering an introductory rate. The total production budget was AU\$50,000.

As the key creative behind this microbudget feature film, I can now reflect on my production methods, both on the page and on location, with the aim of identifying those most useful. In particular, I will outline the relationship between budget and production values, and how a lack of the former need not hinder the latter. Throughout the production and post-production processes, I kept a journal, which has been referenced to illustrate specific points during the chapters on production. Now that my creative work has been completed, I have been able to collate my own observations in the field with professional and academic literature.

Chapter Breakdown

In this exegesis I will argue that pragmatism and bricolage are advantageous strategies throughout the microbudget feature film production process – from conception to completion. I will examine three key examples of successful microbudget feature films, and compare their directors' experiences during these productions with my own experience making a microbudget feature. This exegesis is divided into the following chapters: Definitions, Methodology, Literature Review, Case Studies, Professional Background, Creative Work, and Summary.

In Definitions I will clarify some of the nomenclature inherent in the production of narrative motion pictures, and investigate pragmatism and bricolage, assessing academic literature in both fields and the ways in which the terms can be applied professionally. In Methodology I will outline the system of methods I have used in this research, namely practitioner-based enquiry and case studies, which I examine within the methodological framework of hermeneutic phenomenology. I examine the lived experience of the microbudget feature filmmaker, illustrating the unique challenges inherent in this production method. I present the epistemological underpinnings of my research, namely constructivism, whereby our individual senses, circumstances and beliefs shape our perception of reality. I outline the way I have used autoethnography – a "research paradigm that offers reflective narratives to elucidate the researcher's personal experiences to analyze cultural beliefs, practices, and the social experiences that influence our identities" (Wall, cited in Allen 2015, p. 33) – in assessing my own production techniques during the making of a microbudget feature film, and articulate my tacit thought processes as a filmmaker.

In Literature Review, I compare and contrast views from academic writings, then state my position on these ideas. I outline academic literature on pragmatism, bricolage, design thinking, reflective practice and creativity, and also cover professional literature on filmmaking. By investigating both the academic and professional literature in these fields, I will demonstrate a gap in academic literature in the field of microbudget feature film production investigated from the emic perspective of the filmmaker, as distinct from an etic criticism of completed works.

In my chapter on Case Studies, I discuss independent filmmaking in the United States, focusing on three examples of English-language microbudget feature films which launched the careers of their directors. These are *Slacker* (Richard Linklater 1991), *Clerks* (Kevin Smith 1994) and *Pi* (Darren Aronofsky 1998). Each of these three films was made for \$60,000 or less, went on to secure an international release, and launched the career of their director. This chapter assesses the professional writings of these three filmmakers in addition to other media such as interviews, DVD commentaries and podcasts. During this chapter I demonstrate that pragmatism and bricolage were integral strategies in the design of their respective productions.

The chapter titled Professional Practice outlines my experience as a filmmaker prior to making *Pop-Up*. It covers my early years, in which I first began making no-budget films on VHS, leading into my work as a film industry professional, in which I worked as a director on television commercials with budgets ranging from \$250 to \$50,000. This chapter outlines the way that microbudget filmmaking principles can be applied on larger budget productions.

In Creative Work, I outline the ways in which I applied the theories of pragmatism and bricolage in practice. Combining diary entries and reflection, I articulate the entire process of producing *Pop-Up*, including writing, casting, funding, location scouting, crewing, production design, photography, editing, sound design and music composition.

My summary will outline why pragmatism and bricolage are crucial elements of microbudget feature film project design, outlining the gap in academic literature investigating filmmaking from an emic perspective.

This contribution to the knowledge field is intended to be used as a resource for scholars and scholarly practitioners, including professional filmmakers, commissioning agents, and film students. I am taking an emic point of view from an emerging microbudget filmmaking diaspora, often restricted by a poverty of means in creating films for a relatively small home market. Through scholarly research and professional practice, I have studied the resulting emergence of a "mend and make do" approach, which I have further developed into the methodologies of pragmatism and bricolage. This differs

from the established and culturally hegemonic approaches of the mainstream industry, which is dominated by large budgets, particularly in the American film industry. As a result, those interested in film production are often restricted to outsider status – as observers not makers. Developing *Pop-Up* through the PhD process has enabled the film and its methodological approach to breach these barriers.

Research Overview

My contribution to academic literature is in articulating the process of microbudget feature filmmaking, and converting that knowledge from tacit to explicit. My research details the mechanisms of microbudget feature filmmaking and my attempt to determine whether there are common approaches, techniques and attitudes in this phenomenon – specifically whether pragmatism and bricolage are the hallmarks of producing quality outcomes in this environment. My hypothesis is that the most successful ultra-low budget features are those in which the filmmaker balances creativity and compromise, finding inspiration in the constraints.

Making a film, like any event or project that we engage in, allows us to reflect on the elements and principles of the process. As filmmaker Michaelangelo Antonioni reflected in an interview with Pierre Billard,

Today stories are what they are, with neither a beginning nor an end necessarily, without key scenes, without a dramatic arc, without catharsis. They can be made of tatters, of fragments, as unbalanced as the lives we lead.

He goes on to further explain the role of improvisation, in which

none of us has the habit of preparing for a meeting to further business, love, or friendship; one takes these meetings as they come, adapting oneself little by little as they progress, taking advantage of the unexpected things that come up. I experience the same things when I am filming (Antonioni, cited in Scott, C 1999, p. 318).

This adaptive approach is reinforced in *Spike, Mike, Slackers and Dykes* (Pierson 1996), where John Pierson provided some guidelines for the production of an ultra-low budget feature film. The following three points present the basic principles:

- 1. The script is written to fit the budget, keeping in mind an inventory of available assets ...
- 3. Sets and locations are cheap or free.
- 4. No one in the small cast and crew gets paid a salary, and even the deferred salaries are modest (Pierson 1996, p. 236).

I took this approach when making *Pop-Up*, and in this exegesis I argue that my case studies also followed principles to this effect. In particular, the first point defines both "pragmatism" (the script is written to fit the budget) and "bricolage" (keeping in mind an inventory of available assets).

Through various media, directors Richard Linklater, Kevin Smith and Darren Aronofsky have all shared their experiences on their breakout films, where tenacity and flexibility combined to create great works of cinema on nominal budgets. This exegesis investigates the lived experience of these directors, and my own experience making *Pop-Up*. It considers respective approaches to writing, directing and producing a feature film with limited funds, citing examples of resourcefulness. I examine creative solutions to problems, both on set, and during the writing process, exploring the link between limited resources and creativity. By studying individual filmmakers whose ultra-low budget feature films of disparate genres resulted in international success, I aim to ascertain the similarities of their production methods. I will demonstrate the ways in which these filmmakers were confronted by major production challenges caused by insufficient funds, but were able to use pragmatism and bricolage to find solutions.

I have chosen films produced within a decade of each other, and before the ubiquity of the internet, to demonstrate how three far-flung individuals could arrive at such similar modes of practice without belonging to a unified group, such as the French New Wave, or Dogme 95. In this way, I aim to demonstrate that the methodologies of pragmatism and bricolage were arrived at concurrently, yet in relative isolation.

METHODOLOGY

In summarising Michael Crotty's views on phenomenological research, Jocene Vallack (2002, p. 21) states that Crotty "argues that the epistemology that informs phenomenological methodology must be either objectivism or constructivism". Below I define the key words in this sentence to elucidate my research approach.

Epistomology studies the nature, creation and dissemination of knowledge, and the rationality of belief. In outlining the causes and effects of an individual's worldview, an epistemological study investigates concepts including truth, belief, justification, and skepticism (Steup 2016). A methodology is a set of methods used in research (Crotty 1998). In my case this includes the analysis of other filmmakers' methods (case studies) and self-reflection upon my own experience making a film (authorthnography). Phenomenology pertains to the "meaning things have in our experience, notably, the significance of objects, events, tools, the flow of time, the self, and others" (Smith DW 2016), whereby the experience I am studying is the production of microbudget feature films. Constructivism is a pedagogical theory that posits how human beings create systems for meaningfully understanding their worlds and experiences (Raskin 2002). It provides the foundation for my investigation, as I am examining the knowledge I have attained through my own filmmaking experience, along with that of other filmmakers. While "learning is a constructive process in which the learner is building an internal illustration of knowledge, a personal interpretation of experience" (Duffy & Jonassen 1992, p. 21), I will attempt to uncover universality within individual experiences – to find common ground in broader creative fields.

In my research, I aim to answer three primary questions:

- 1. What have been the driving motivations of filmmakers involved in microbudget feature film production?
- 2. What are the inherent challenges in the microbudget feature filmmaking process?

3. From the perspective of a filmmaker, how can an understanding of pragmatism and bricolage be developed and applied to the process of writing and directing a feature film on an ultra-low budget?

This chapter addresses the set of methods I use to address these questions. *Shoestring Theory* aims to depict the lived experience of the ultra-low budget feature filmmaker through a qualitative assessment of practice. My primary research methods are practitioner-based enquiry and case studies, which are informed by the epistemology of constructivism. This is contained within the methodological framework of hermeneutic phenomenology, which is

concerned with the life world or human experience as it is lived. The focus is toward illuminating details and seemingly trivial aspects within experience that may be taken for granted in our lives, with a goal of creating meaning and achieving a sense of understanding (Laverty 2003, p. 7).

In my research I have positioned myself as a practitioner, and I assess my own actions using an autoethnographic observation technique. The practice I've engaged in is an alignment of design research with the philosophies of pragmatism and bricolage. This approach has allowed me to describe the technical details of a film production, and the professional opportunities resulting from my work's completion and international exhibition. I present evidence that my theories surrounding pragmatism and bricolage have real-world applications, based on subsequent successes in the broader film industry.

The primary question of epistemology is "how do we come to know what we know?" (Bodner 1986, p. 1). I am outlining how I have come to know that pragmatism and bricolage are the building blocks of microbudget feature film project design. An epistemological study of pragmatism offers a foundation for the practical application of ideas, both as a filmmaker and researcher. Pragmatism can be used as a lens through which design thinking can be investigated, aided by the work of pragmatism's noted scholars such as John Dewey and Charles Sanders Peirce. By directing an ultra-low budget feature film myself, and keeping a journal, I have recorded my process of decision making, articulating what many filmmakers are doing tacitly, while applying

an autoethnographic lens. By studying academic literature in combination with an analysis of my own heuristic filmmaking experience, I am offering a critique of pragmatic problem solving. Additionally, I have investigated professional writing in the field of filmmaking, and unpacked it with reflective practice.

Making a film provided a case study for an autoethnographic account of my lived experience. As the film was completed in its entirety in 2016, I have been able to draw upon my experiences during the film's production, analysing the methods in which I solved problems, and investigating my creative process. To use an advertising term, a "unique selling point" of this exegesis is its insider's view of microbudget feature filmmaking, a perspective rarely investigated academically. In analysing my own examples of creative solutions to budget-related problems during the production of *Pop-Up*, I am using autoethnography as my research framework. Through self-reflection, and exploring my personal experience during the years of *Pop-Up*'s production, I hope to connect this story to a wider cultural landscape, allowing other creative practitioners to benefit from my findings. Michael Crotty's definition of ethnographic research articulates my methods of researching filmmakers:

Ethnographic inquiry in the spirit of symbolic interactionism seeks to uncover meanings and perceptions on the part of the people participating in the research, viewing these understandings against the backdrop of the people's overall worldview of 'culture'. In line with this approach, the researcher strives to see things from the perspective of the participants (1998, p. 5).

I can elucidate my own methodology by paraphrasing Crotty's definition:

I seek to uncover the motivations on the part of the filmmakers I am studying, viewing these understandings against the backdrop of microbudget feature filmmaking and its inherent budget-related challenges. In line with this approach, I will strive to see things from the perspective of a filmmaker who is writing and directing a feature film on a shoestring budget.

This passage covers my case studies, but could again be paraphrased with an autoethnographic context, as I am sharing my own worldview as a filmmaker. Crotty's

reference to 'culture', in this case, translates to a wider set of techniques used by microbudget filmmakers. The use of pragmatism and bricolage is a culture within my own work, and this exegesis is designed to reveal its prevalence in the wider filmmaking community.

Charles Sanders Peirce, whose writing on pragmatism gave him the label the "father of pragmatism" (Baird 2016, p. 1008), outlined the link between constructivism and pragmatism. In What Pragmatism Is (1905, p. 1), he states that "every physicist, and every chemist, and, in short, every master in any department of experimental science, has had his mind moulded by his life in the laboratory to a degree that is little suspected". For Peirce, truth was subjective, and formed by an individual's circumstance. Christopher Hookway (2016) states that "the most influential application of the pragmatist maxim was to the concept of truth". A distinction can be illustrated by the difference between a film project and an engineering project. Two directors shooting the same script are likely to produce vastly different outcomes, while two engineers working from the same blueprint are likely to produce largely identical results. Should a poorly designed bridge collapse, its causes can be identified in strict scientific terms, such as the use of insufficient weight-bearing materials. Its ineffectiveness is objective; no one would label a bridge successful if it fell into a pile of rubble. Conversely, a film can be labeled as both triumphant and disastrous by different critics, as witnessed in the reception of Shane Carruth's microbudget art house feature *Upstream Color* (2013), with comments ranging from "tactile experience of poetic ideas, of modern disconnection and biophysical insecurity and existential doubt" (Atkinson 2013) to "a pretentious and exhausting failure ... a series of obtuse moments loosely connected by the most threadbare of plots" (Hopson 2013).

In attempting to articulate the fuzzy logic of the filmmaking process, where "truth" is subjective, a system of analytical methods must be employed. My autoethnographic approach will generate knowledge through both creation and reflection. While such "designerly ways of knowing, distinct from the more usually-recognised scientific and scholarly ways of knowing" (Cross 1982, p. 223) – an attempt to solve ill-defined problems – do not adhere to a standard scientific research paradigm, they can nonetheless produce concrete outcomes, the lessons of which can be passed on. By extrapolating universally applicable insights from the specificities of microbudget

cinema production, the resulting knowledge can benefit future filmmakers and broader creative fields.

My ontological position is constructivism, whereby "knowledge is constructed in the mind of the learner" (Bodner 1986, p. 873). I explore the notion that we are creating meaning in the world and constructing our own perception of reality – as individuals, and as a society – and examining our relationship to what we perceive as reality, in which our worldview is constructed by the social framework surrounding us. There is a parallel between a constructivist worldview, and the motivation to tell a story via film; as a filmmaker I portray my own interpretation of the world. Constructivism centres on human meaning making (Raskin 2002) and postulates that the perception of right, wrong, true and false is relative to the customs of any given community shaping it. The terms "contructivism" and "constructionism" are largely interchangeable; here Crotty uses the latter:

If we seek to be consistently constructionist, we will put all understandings, scientific and non-scientific alike, on the very same footing. They are all constructions. None is objective or absolute or truly generalisable (1998, p. 16).

Filmmakers too are shaped by their circumstances, and draw upon their knowledge and experience to tell stories which resonate within a certain subset of society. For Richard Linklater's film *Before Sunrise* (1995), the writer/director drew upon a real-life encounter he'd had in 1989, in which he randomly met a girl, and spent the entire night walking through the streets, chatting and flirting until sunrise (Wickman 2013). Linklater's worldview was one that valued the rush of flirtation, the bitter-sweet sensation of longing, and the intellectual satisfaction of a kindred spirit. His nostalgia for the event was the conceptual foundation of a trilogy spanning 19 years; the second and third films in the series being released in 2005 and 2014, respectively.

To express the world through filmmakers' eyes, I am looking at our respective experiences from a hermeneutic phenomenological perspective, whereby the phenomenon is the use of bricolage and pragmatism. Hermeneutic phenomenology provides the framework for investigating the lived experience of the filmmaker at key creative moments. I have sought insight from the texts of filmmakers' interviews about

their low-budget films, and through texts written by the filmmakers themselves, focusing on passages mentioning specific problems and challenges.

In arguing that pragmatism and bricolage form the basis of successful project design strategies in ultra-low budget feature film production, I am referring to the phenomenon in which the filmmaker is faced with a significant hurdle in the production process, and overcomes it by creative thinking, and using minimal funds. My research is emic – placing me inside my object of study, as I am reporting my findings based on my own creative practice. This autoethnographic approach manifests as a reflective analysis of my own work, paying attention to the instances in which I solved problems with pragmatism and bricolage. Having read other filmmakers' first-person accounts of their filmmaking, I am interpreting their anecdotes within this framework. The case studies are therefore etic – positioned outside of my personal experience. My investigation has been informed by my emic knowledge; I am interpreting professional literature from the position of a filmmaker researching filmmakers.

Methods

Prior to embarking on the production of *Pop-Up*, I had written and directed approximately five hundred television commercials in a professional capacity, a television series with 7 x 30-minute episodes, a feature film, and numerous short films and music videos. Apart from a small number of television commercials with budgets exceeding \$30,000, most of my work has been produced on a low budget. Throughout my many years behind the camera, I have adapted my techniques to accommodate these low budgets, honing skills to produce a professional aesthetic with minimal means. I have directed television commercials and promotional videos for clients such as McDonald's, Nike, Adobe, and Honda, using DSLR cameras and a small crew, though these were still deemed of sufficient aesthetic quality to be broadcast nationally and internationally to millions of viewers. Likewise, my production of the television series *Back in the Soviet Bloc* (2013) was shot on location in Russia and Ukraine using a DSLR camera. My background as a creative practitioner, whose focus has been to create world-class television productions on minimal budgets, qualifies me to assess the aesthetics of feature films, and to understand the entire production process.

As every production poses unique challenges, I continue to learn during each shoot. This tacit knowledge provides me with a unique insight into the production process, allowing me to understand the challenges faced by the filmmakers I am studying. My creative practice is central to the development of the knowledge I have uncovered; it generates knowledge, rather than merely embodying it. During the production of *Pop-Up* I kept journal entries. A selection of these has been used to substantiate claims made in the chapters on production, and to provide examples of my use of pragmatism and bricolage. The autoethnographic quality of these journal entries not only documents my observations but provides a hermeneutic phenomenological framework for assessing the writings and interviews of the filmmakers I have studied. By finding meaning in my own lived experience, I am also finding meaning in the lived experience of those who have gone before me.

Autoethnography and Tacit Knowledge

It appears to be a common trait across many design disciplines that design ability goes beyond intramental (i.e., "in the head") activities and extends into competent use of tools and techniques such as ... sketching, prototyping and scenario development. Designers draw on these resources to understand the present situation, to envision and explore potential futures and to expose potential future users to their concepts to evaluate which course to take in the design process (Dalsgaard 2014, p. 145).

Autoethnography is a reflective research method whereby the researcher analyses and draws meaning from their own experience (Allen 2015). The key focus of my autoethnographic inquiry is the choices I made during *Pop-Up*'s pre-production, production and post-production. And while the word processor, camera, and edit suite may have been my primary tools for each section, my choices extended into other fields, including fundraising, crewing, casting, scheduling, location scouting, sound design, music composition, lighting, and marketing.

The potential pitfalls of autoethnographic research are primarily associated with a lack of objectivity. I could justify my mistakes, reframe my motivations, and ignore my shortcomings. By overanalysing my own work, my methods could become

premeditated or self-conscious, attributes I wish to avoid in my filmmaking. In *The Nature of Cognition* (1999) Robert J. Sternberg notes that self-observations are not entirely reliable, and argues that "inaccurate (or at least imperfect) recall interferes with self-observations obtained after the task performance has ended" (p. 70). Director Sydney Pollack addresses the potential hazard of overthinking the creative process:

It's important not to intellectualize the filmmaking process too much. And particularly not during the actual shooting. I might think a lot about the film before I make it, and certainly after, but I try not to think about it too much when I'm actually on the set. The way I work is that I try to determine as early as possible what the theme of the movie is, what central idea is being expressed through the story. Once I know that, once I have figured out the unifying principle, then any decisions I make on the set will be influenced by that and will therefore fall into a certain logic. And to me, the success of the film depends on whether or not the choices you make on the set, as a director, remain true to the original idea (Pollack, cited in Tirard 2002, pp. 15–16).

Pollack's concerns mirror those of the autoethnographic researcher creating a work while simultaneously reflecting on its meaning and methods. While I acknowledge that a filmmaker overthinking the creative process can result in films which value intellect over emotion, I have assuaged these concerns in my own practice by being aware of this pitfall, and maintaining a critical distance between practice and reflection. The resulting research conclusions have not hampered my creative output, but have instead augmented it, leading to a greater understanding of my thought processes. This outcome has improved my work, rather than impeded it. Autoethnography is "hotly debated among scholars", many of whom have "attacked the issue of validity in using personal narratives as primary source material" (Wall, cited in Allen 2015, p. 34) as its first-person narrative lacks the objectivity of an etic study. I argue, however, that such an emic perspective of microbudget feature filmmaking is lacking in academic literature, and while I must be vigilant in my attempts at objective self-analysis, my investigation demands an insider's viewpoint to ensure a new perspective in this field.

While my research cannot claim to be quantitative, the tangibility and longevity of a film – as distinct from an impermanent work of theatre or dance – allows for more critical observations in retrospect. A film does not change over time; *Slacker* is the same

film now as it was in 1991, and *Clerks* has merely been re-released in high-definition. Linklater's memories of the production process may have changed over the years, and my recollections of *Pop-Up*'s production will undoubtedly evolve too. But the scenes that demonstrate clear use of pragmatism and bricolage remain intact, and can be viewed years later through an interpretive lens. Over time the interpretation can change, as demonstrated by lukewarm reviews of *Citizen Kane* upon its release in 1941 compared to its contemporary reverence.

While it may be difficult to codify how a director frames a shot due to the subconscious thought processes, the moments in which pragmatism and bricolage are exercised to solve a problem are more tangible. They result from a problem that can be expressed in finite terms, so their solution can be clearly defined. Kevin Smith kept a diary during the production of Clerks, in which he articulated the problems he faced and their solutions. For example, to overcome the continuity issue of setting Clerks in a convenience store during daylight hours, when he could only access his location at night, he included a story element in which a vandal had jammed chewing gum into the padlocks, preventing the roller doors from being opened, justifying fluorescent lighting as the primary light source (Smith 2004). Similarly, by reflecting on the decisions I made during the production of *Pop-Up*, I have a clearer understanding of my own though processes, and future filmmakers will be able to learn from my experience. By using autoethnography as a critical framework for this research, and attempting to articulate my methods through a critical lens, I am connecting my personal experience as a filmmaker to the wider field of filmmaking. In reviewing my own practice, and articulating the tacit knowledge I have developed over decades of making films, I am describing the phenomenon of microbudget filmmaking in both social and technical spheres, and this self-awareness allows a greater comprehension of my place in the broader field of design. My insider's perspective provides insights that literature alone cannot provide. By using autoethnography as a research method, I am able to make my tacit knowledge explicit.

When I first attended film school in 1992, my class was presented with diagrams illustrating the workings of a spring-wound 16 mm Bolex, a portable motion picture camera used in the battlefields of World War II. Having only operated fully automatic video until that point, I recall being bewildered by terms such as "depth of field", "f-

stop" and "shutter angle". Only upon shooting my first footage with this camera did these begin to make sense. By holding the device in my hands, I could look through the eyepiece, and see the image become darker or lighter depending on how I adjusted the lens. A quarter of a century later, I am still learning in the same way, albeit on a different scale. Having been immersed in this field for many years, its technical aspects have now become familiar; a typical sentence spoken regarding post-production on *Pop-Up* might have been:

Our acquisition format was 4K Raw in the R3D codec, but for offline we'll need a ProRes422 proxy, so I'll transcode through RedCine-X pro, offline in FCPX, then export the EDL to online and grade in DaVinci.

I understand this as I am immersed in this domain of professional motion picture production. The filmmaking field is characterised by a unique melding of technology with artistry, on a scale unsurpassed in any other medium. It would be impossible to comprehend such language without direct involvement. To write, produce and direct a feature film, a filmmaker requires knowledge of a vast array of fields. Since I am in the same position as the filmmakers I am studying, in that I have written, directed, and produced a feature film myself, I can attest to the broad range of knowledge necessary to communicate with the various departments. As Jean-Luc Godard said himself, "the advice I would give today to anyone who wants to become a director is quite simple: make a film" (Godard, cited in Tirard 2002, p. 206).

This insider's perspective provides insights that a lifetime of reading could never hope to achieve. Without understanding the complete mechanics of feature film production, I would be unable to grasp the thought processes that go into the instances of pragmatism and bricolage I am researching. Over thirty years since first stepping behind a motion picture camera, my tacit knowledge has steadily increased, to the point where I am able to write a screenplay, edit a film, compose a soundtrack, direct actors, record sound, operate a camera, and raise money. Every time I do one of these things, I improve. The key advantage of practice-based research is that it makes me a better filmmaker.

LITERATURE REVIEW

Theory and practice are ... closely interrelated in design (Dalsgaard 2014, p. 145).

This exegesis incorporates a critical analysis of pragmatism and bricolage, incorporating questions and theories of design thinking. It explores several interdisciplinary ideas, namely that pragmatism and bricolage can serve as theoretical support for design thinking, which, upon being executed in real-world environments, can provide beneficial outcomes to creative pursuits. I argue that successful microbudget feature filmmaking requires a lucid synthesis of pragmatism and artistry, and that the findings herein can benefit the development of microbudget filmmaking practice.

This exegesis investigates the design of a motion picture production. This design incorporates both the plan and its execution, in the same way a building, a phone, or a sculpture is designed – with an initial idea of what is required, taking into account the intended functionality, target consumers, and the available means. The academic literature I assess largely explores the discipline of design, and the philosophical domains of pragmatism and bricolage, with some overlap between these areas.

Design theorist Richard Buchanan has noted the evolution of the term "design". He describes the various iterations of design as "the conception and planning of the artificial", noting that "different definitions of design and different specifications of the methodology of design are variations of this broad theme, each a concrete exploration of what is possible in the development of its meanings and implications" (1992, p. 14). My readings of academic literature in the fields of creativity and design thinking are intended to augment the film-related writings. Together, they paint a picture of the complete filmmaking process, from the initial idea, through to its development, execution, and completion. There is little to no literature directly related to pragmatism and bricolage in microbudget filmmaking, so my research will begin to fill this gap.

My literature review draws from filmmakers, their biographers and interviewers, and also from researchers of creativity. I have attempted to find a connection between the constraints of low-budget filmmaking, and the resulting films produced, specifically

those which have been selected by the field through the process outlined by Mihaly Csikszentmihalyi:

For creativity to occur, a set of rules and practices must be transmitted from the domain to the individual. The individual must then produce a novel variation in the content of the domain. The variation then must be selected by the field for inclusion in the domain (Csikszentmihalyi 1999, p. 315).

My case studies are a combination of successful ultra-low budget feature films, books written by the filmmakers about the experience of making the films, and existing interviews with filmmakers discussing the process. Some of the books are in a diary form, such as *Rebel Without a Crew* (1995) by Robert Rodriguez, and *Pi: Screenplay and The Guerilla Diaries* (1998) by Darren Aronofsky. These include anecdotes outlining instances of pragmatism and bricolage. In addition to these, I have consulted academic works on the process and nature of creativity, investigating creative problem solving, creativity, design thinking, and reflective practice. Mihaly Csikszentmihalyi's analysis of the creative process, and descriptions of the creative personality have informed my analyses of filmmakers' writings – mine included. He noted that "creative individuals are remarkable for their ability to adapt to almost any situation and to make do with whatever is at hand to reach their goals" (Csikszentmihalyi 1996).

The theory that the mind is as an apparatus for judgement, enterprise, and interpretation of the world around us is the focus of my studies, with the specific hypothesis that problem solving and creativity must be inextricably linked in any attempt to create a successful ultra-low budget feature film. Charles Burnette (2013, p. 2) articulated a similar position in his work on creativity and design, stating that "the ability to become deeply aware of, focused on, and engaged in resolving a problematic situation is the intentional basis of creative thought."

As the inventor of the term "bricoleur" in a sociological context, the writings of Claude Lévi-Strauss, in particular *The Savage Mind* (1966), inform my bricolage investigation, though filmmakers are unlikely to use this moniker themselves. Filmmaker John Cassavetes, considered the "godfather of independent film" due to his early work outside the American studio system (Ferrari 2017), noted the link between innovation

and constraint in filmmaking, in which "all the innovative things that you do are just the best that you can do with the limited materials that you have." (Cassavetes, cited in Ventura 2008, p. 123).

The Gap

In practice-based research we are often travelling the bandwidth between scholarly knowledge, that is accepted and verified by peers in a particular field, and tacit knowledge that is at the cutting edge of practice. It is through practice-based research that creative practitioners discover new knowledge and processes. This knowledge is then tested in and set against the scholarly field's knowledge and theories, and becomes verified by our peers and becomes part of praxis (Minichiello 2005, p. 25).

When an audience watches *Pop-Up*, they are unaware of the years of sustained effort required to complete it. Such blissful ignorance is part of the enduring appeal of film – no matter how arduous the production, the viewer is shielded from the pain of the production itself. A film such as *Fitzcarraldo* (Herzog 1982), plagued by an arduous shoot in which on-set quarrels between director and star reportedly escalated into physical assault, was clearly a troubled production, but the completed film can now be enjoyed on a comfortable couch with popcorn in hand. Critical appraisals of films rarely take the production process into account – films are rightly judged by their end product alone. Should a filmmaker attempt to excuse a lack of coherence, continuity, or production values, it may elicit derision, as was the case when writer/director Zach Braff defended his debut feature *Garden State* (2004) against criticism by commenting, "Why write something so cruel?! ... It was my first film!" (Braff, cited in Cote 2015).

Typically, those who write academic papers on film are not filmmakers themselves. They are likely to be versed in film history and semiotics, yet may not know their "depth of field" from "field of vision", or their "180 degree rule" from their "30 degree rule". As such, academic literature analysing the day-to-day process of filmmaking itself is considerably less common than academic studies of formalism, semiotics or the French New Wave. My investigation into the current academic literature addresses this gap. A hermeneutic phenomenological analysis of filmmaking – exploring the lived

experience of filmmakers and their day-to-day problem solving – is a largely untapped subject. This exeges provides a first-hand account of the pragmatism and bricolage required for the microbudget filmmaking process, combined with an academic inquiry into the domain.

During the production of Francis Ford Coppolla's plagued yet ultimately triumphant Vietnam War masterpiece *Apocalypse Now* (1979), his wife Eleanor Coppola filmed candid footage of the 238-day shoot, culminating in her documentary *Hearts of Darkness: A Filmmaker's Apocalypse* (1991). The documentary demonstrates the way a film is moulded by the day-to-day happenings on set – accidents, serendipity, luck, mistakes, compromise, and inspiration. It reveals that successful filmmaking, on any scale, must adopt the principles of *kintsugi*, which translates as *golden joinery*, "the Japanese art of ... fixing broken pottery with a lacquer resin sprinkled with powdered gold" (Grakalic 2012, p. 5). It treats breakage and repair as part of the history of an object, rather than something to disguise, with the aim of retaining an aesthetically pleasing result. Filmmaking requires a constant adjustment to unforseen circumstances, whether on location in the jungles of Vietnam or in a convenience store in New Jersey. In microbudget filmmaking, with less control over elements such as weather, crowds, and traffic, such challenges may be more prevalent, necessitating a greater emphasis on the filmmaker "celebrating the repair" (Grakalic 2012, p. 5).

Despite the cinema-going public displaying an appetite for behind-the-scenes literature and documentaries – the *Lord of the Rings* box set contains 12 hours of "making of" material – academic literature tends to focus on completed films. In the 1960s, French New Wave filmmakers Godard, Truffaut et al. could not blog or tweet about their production experiences, nor add featurettes to their Blu-ray releases. But in this era of social media, interest in a film's journey from conception to consumption is ubiquitous. The 2016 SXSW film festival took the unusual step of inviting the behind-the-scenes featurette *Secrets of the Force Awakens: A Cinematic Journey* into its official selection, despite its only being intended as a special feature on the Blu-ray release of *Star Wars Episode 7* (SXSW 2016).

Pragmatism

Pragmatism denotes a shared body of assumptions and perspectives that originated in the United States around the end of the nineteenth century. Major early contributors to pragmatism include Charles Sanders Peirce (1839–1914), William James (1842–1910), and later John Dewey (1859–1952) and George Herbert Mead (1863–1931) (Dalsgaard 2014, p. 146).

Jason Reitman, director of *Thank You for Smoking* (2006), *Juno* (2007), and *Up in the Air* (2009), said that

Filmmaking is finding a piece of granite and you start to chip away and then you have the shape of a head, the shape of the arm, you can see the shape of the face and the face starts to gather character. You have to find it (Reitman, cited in Weintraub 2011).

Pragmatism is what happens when the granite begins to crack, and you must accommodate its faults it into a new form, but somehow keep its human appearance. It emphasises the "existential condition of being placed in a world of emerging and unfolding phenomena" (Dalsgaard 2014, p. 148).

In the United States in the 1800s, William James and Charles Sanders Peirce introduced the concept of pragmatism to the philosophical discourse, later expounded by John Dewey. Taking a strictly practical view of reality, they gave primacy to usefulness when assessing the benefits of any particular philosophy. Kloppenberg (1996, p. 101) articulates this approach concisely, noting that "the early pragmatists sought to reorient philosophy away from interminable and fruitless debates by insisting that ideas should be tested in practice."

While empiricism – developed initially in the 17th century – postulates that the human experience is entirely sensory, pragmatism combines this practical approach with deductions made from previous experiences. It suggests that perception also incorporates reflection, and that this combination of sensory input from the present and awareness of the results of past actions creates a subjective experience of reality determining one's actions – an "inseparable connection between rational cognition and

rational purpose" (Peirce 1905, p. 163). My pragmatic approach to research is reflective and reflexive – analysis based on my own experiences, assessing the outcomes of my own research. In investigating my own endeavours as a filmmaker, my research notes the daily intricacies of my decision making, reflecting upon them through a pragmatic framework.

In "Art as Experience" (1979), John Dewey values life events depending on their outcomes, in which events with future ramifications are given greater weight in the human consciousness. Human perception of reality is thus determined by the choices made moment – an interplay between a person and the world in which they live, informed by the results of previous decisions. This is equally valid in the construction of a bridge, the production of a movie, or the choice between mushrooms on the forest floor. Dewey describes "conscious intent" (Dewey 1979, p. 24), whereby the perpetuation of consciousness necessitates a continual reassessment of cause and effect. Navigating the potential pitfalls of human existence necessitates constant evaluation of which actions have been successful and unsuccessful – in practical day-today settings, and, in the case of the designer, when making aesthetic judgements. Conscious intent emerges when sufficient experience has been achieved that an outcome can be predicted from a particular circumstance, allowing action to be taken with confidence. For a filmmaker making a microbudget movie, use of a shallow depthof-field may have previously resulted in a feeling of intimacy with a character, so with this outcome in mind, the technique may be utilised during future productions where necessary.

Pragmatism dictates that the value of a hypothesis should be based only on its practical viability. Should a theory have no empirical application, it is deemed redundant. In the project design of a microbudget feature film, the filmmaker's lifetime of experience is utilized when on set, as judgements based on theory alone would rarely prove practical. For example, a textbook may tell a filmmaker to ensure every shot depicts a clearly delineated subject, and that excessively shaky camerawork will only disrupt the suspension of disbelief. Yet in the penultimate scene in *Pop-Up* – the finale involving an attempted hanging – the blurry and frenetic camerawork preceding the rescue invoked the protagonist's crazed state of mind, and is effective within this context.



Figure 1: Still from *Pop-Up* demonstrating where an excessively shaky shot is effective in the right context.

In isolation the shot would be considered excessively shaky. But pragmatically – basing the decision whether to include it purely on its effectiveness – it was a success. Pragmatism is not intended as a philosophical panacea, but instead to function as a dynamic tool for appraisal and subsequent action. It states that our individual hypotheses about the nature of reality should be assessed on their practical application, that "experience in practice takes precedence over doctrines" (Dalsgaard 2014, p. 146).

In filmmaking terms, the consideration of theory verses practice plays out during each moment behind the camera. One of the basics precepts of film language, the "180 degree rule", is designed to ensure visual coherence. In the case of a character moving screen-left to screen-right in a wide shot, a direct cut to a close-up should continue the screen direction from left to right. And while I adhered to this rule in roughly 99% of my sequences during *Pop-Up*, my coverage during the boxing scene forced me to break the rule. I had two choices: re-shoot the sequence – an expensive and time-consuming exercise – or make do with the shot in which I broke this basic rule. I chose the latter, and the sequence includes a pragmatic edit:



Figure 2: Edit in *Pop-Up*'s boxing scene that breaks the "180 degree rule".

"Crossing the line" here was not an intentional stylistic choice, but a compromise I felt I could get away with. It was not perfect, but it was satisfactory.

Pragmatism is a "paradigm of inquiry ... asserting that practice is the essential test bed in which conceptualizations prove their value" (Dalsgaard 2014, p. 148). In filmmaking terms this involves the reduction of a screenplay's scope to a manageable size without sacrificing story. And when unforeseen circumstances threaten to derail the production during the planning stages, or during the shoot itself, pragmatism is about finding creative solutions, as monetary stopgaps are not an option.

For my creative work, I could have written a screenplay set in outer space, or featuring thousands of robots in battle. To write such scenarios only requires a laptop. But to produce such a film would have required many millions of dollars. Aware that I didn't have millions, but confident I could raise around \$50,000, I instead wrote a drama with comic elements set in the present day, and filmed on location in places where either I lived or where a friend runs a production company. My pragmatism informed my design of the project from the outset, and as a result the film was completed. Dalsgaard articulates the way that pragmatism informs design thinking:

at the outset, the subject recognizes the problematic nature of the indeterminate situation. This motivates the subject to transform the situation. The subject then tries to identify the elements of the situation that causes indeterminacy. This can be seen as a tentative articulation of what constitutes the problem as well as the framing of the boundaries or parameters for the inquiry. Having some idea of the problem space, the subject then forms conceptualizations – ideas, theories and hypotheses – of how to transform the situation. The final and critical part of the process is to try out these conceptualizations in practice to see if they can move the indeterminate situation towards resolution (2014, p. 147).

This process can be applied to filmmaking in general, and specifically to microbudget filmmaking. Such indeterminate situations arise constantly when attempting to solve problems. In filmmaking, pragmatism is the conscious act of reduction – scaling back production elements to fit the available means, by reducing the story to its essence. Had I written a film involving space robots, the pragmatic approach would have been to isolate the drama from the setting in the space robot story, and find ways to tell the same story in a contemporary world, relying entirely on human characters. Pragmatism "allows any flight of imagination, provided this imagination ultimately alights upon a possible practical effect" (Peirce, cited in Davis 2012, p. 74).

In his attempt at clarifying C. S. Peirce's Harvard lectures, Philip Campbell (2011, p. 9) suggests that

like the man who learned to his surprise that he had been speaking prose all of his life, perhaps pragmatism is the philosophy that we are all philosophers and pretty good ones at that. Pragmatism just hopes to help us see how we do it so we can get better at it.

The elements of Peirce's theories that resonate in the context of microbudget filmmaking are his elevation of "experience" to form a functional underpinning of our daily life, and the idea that a philosophy is only useful when it has practical benefits in the real world, as experienced through our senses. For example, this might manifest as a crew member reassessing superstitious beliefs. If a set rigger had been brought up to believe it was bad luck to walk under a ladder, but his job demanded he frequently walk beneath ladders, he might reassess his philosophical standpoint accordingly, and

abandon that belief. In "Pragmatism: An Old Name for Some New Ways of Thinking" (2008), Wiliam James attempts to clarify Peirce's ideas.

Mr. Peirce, after pointing out that our beliefs are really rules for action, said that to develop a thought's meaning, we need only determine what conduct it is fitted to produce: that conduct is for us its sole significance (James 2008, p. 23).

The core message is that our beliefs are rules for action; Peirce's idea of pragmatism can be boiled down to effectiveness. If a belief has no practical day-to-day value, then it is of no use to a person. And while this may seem like common sense, billions of people around the globe follow belief systems that bear little day-to-day practicality, for example in religious teachings and practice. Pragmatism also suggests that the usefulness of a belief is directly intertwined with its circumstances. For example, a pre-Copernican belief that the earth was the centre of the universe served no disadvantage in the 15th century – in fact, it may have even prevented interrogation by the Spanish inquisition – but such a belief would be a considerable hindrance to an aspiring astrophysicist in 2017. Similarly, a filmmaker believing he could set a film on the International Space Station with a \$50K budget might need to reconsider his belief system.

Perhaps the earliest question that children ask which explores subjectivism – whether we all experience colours the same way – is expressed by William James:

It is that our normal waking consciousness, rational consciousness as we call it, is but one special type of consciousness, whilst all about it, parted from it by the filmiest of screens, there lie potential forms of consciousness entirely different (James 1902).

Emile Durkheim gave a series of lectures on pragmatism and sociology in 1913–1914. These lectures explored subjectivism, outlining Durkheim's pragmatic philosophy and his subsequent analysis of individualistic truths. He explores pragmatism from a sociological perspective, investigating the role of religion as a bonding agent, and demonstrating that for a society to flourish it must adjust its belief systems according to its circumstances. Here he outlines this process of adaption:

The essential thing is the process of being guided. Any idea that helps us to deal, whether practically or intellectually, with either the reality or its belongings, that doesn't entangle our progress in frustrations, that fits, in fact, and adapts our life to the reality's whole setting, will agree sufficiently to meet the requirement. It will hold true of that reality (Durkheim 1983, p. 50).

In assessing the intellectual needs of individuals within a society, he differentiates humans from more basic life forms, whereby our needs are more than survival and reproductive impulses; humans also seek fulfillment. There are, therefore, two sides to pragmatism: "a notion of necessity, of determination, and a current of freedom, of non-determination" (Durkheim 1983, p. 52). This duality between basic needs (survival) and higher needs (satisfaction) aligns with a micro-budget filmmaker's on-set choices – an oscillation between artistry and compromise – where there is never a correct answer, only a satisfactory one. Durkheim's position on pragmatism is perhaps best expressed here:

In contrast to rationalism, pragmatism sees clearly that error does not lie on one side and truth on the other, but that in reality truths and errors are mixed, the latter having often been moments in the evolution of truth (Durkheim 1983, p. 68).

By acknowledging that an individual design problem is not solved in a binary sense, "true or false", but instead in the fluid terms of "good or bad", a solution can be reached through reflection upon personal experience, assessment of previous outcomes, and an application of acquired knowledge. In this sense, the "truth" of project design in microbudget filmmaking adheres to Durkheim's pragmatic analogy, that

the world is a 'chaos' from which the human mind 'cuts out' objects which it has arranged, put in place and organized in categories. We have created them to meet the needs of practical life (Durkheim 1983, p. 53).

Crucially for the context of this research, Durkheim touches on the notion of judgement: "There are judgments which for me are good and therefore true, but bad and therefore untrue for others" (1983, p. 56). Film director George Lucas attested to the practice of

making judgements on set, noting that "a director makes 100 decisions an hour" (Lucas, cited in Brockes 2002). This is illustrated explicitly in Francois Truffaut's *Day for Night* (1973), where the character of the director, played by Truffaut himself, is asked one question after another in a single sequence – he must select the protagonist's gun, instruct the production designer to paint the white car blue, approve the design for a bungalow, discuss the schedule with a financier, and choose the colour of a wig.

The end result of a film production is composed of many such judgements made daily, often over the course of several years. Durkheim's ideas on subjective truth, in combination with George Lucas's assessment of the constant decision making of the director, are the ingredients that make each film unique. The challenge lies in applying these pragmatic concepts – to aim for satisfactory results over perfection – and to learn from past successes, yet still allow room for inspiration.

Bricolage

Generally speaking, when the [word "bricolage"] is used within the domain of qualitative research it denotes methodological practices explicitly based on notions of eclecticism, emergent design, flexibility and plurality. Further, it signifies approaches that examine phenomena from multiple, and sometimes competing, theoretical and methodological perspectives (Rogers 2012, p. 1).

Claude Lévi-Strauss's work *The Savage Mind* (1966) is concerned with the adoption of different strains of philosophy to suit given circumstances and focuses on structural anthropology, citing examples of societies borrowing ideas from others. It introduces the word "bricoleur", denoting a person who practices bricolage. This is a useful concept in the study of microbudget film production, and particularly as part of this research, given that it is framed from the perspective of a practitioner. I argue that in order to achieve success in this field, the director must become a bricoleur, a person who has "an aptness for creativity", and knows how to "artistically combine theories, techniques, and methods" (Rogers 2012, p. 6).

Bricolage is a philosophical tenet espousing an aggregated belief system. It concerns making do with what is at hand rather than engineering elements from scratch. I have

focused on research addressing the philosophy of bricolage as a system of qualitative study, rather than papers on a specific field using bricolage as part of its analysis. The exception is when the field in question is design, as is the case with *Design as Bricolage* by Panagiotis Louridas (1999). The "multiperspectivism" of bricolage allows bricoleurs to learn "multiple lessons from their in-depth study of the discipline in particular" and to become an "expert on the relationships connecting cultural context, meaning making, power, and oppression within disciplinary boundaries" (Kincheloe 2001, p. 684). In Describing the Bricolage: Conceptualizing a New Rigor in Qualitative Research (2001) Kincheloe discusses what she calls "interdisciplinarity", and the way in which students of multiple disciplines must take a pragmatic approach to developing their own ontological viewpoint, accepting that no single philosophy has an objective truth, but that elements of several, when pieced together, can form a cohesive whole. She suggests that the best way to become a bricoleur is to look at the evolution of philosophies, and by understanding their respective genealogies, form a deeper understanding of their "knowledge production". She does, however, acknowledge that to study the tenets and history of multiple disciplines may be an insurmountable task. To reframe Kincheloe's advice in a filmmaking context would be to encourage a director to study films from all eras, nationalities and genres.

I would add to this filmic reinterpretation of Kincheloe's ideas by including other forms of media. A wide variety of novels, music, art, and photography should all be absorbed by filmmakers. In the case of *Pop-Up*, my music took influence from Macedonian instrumental guitarist Vladko Stefanoski, Trent Reznor's droning minimalist soundtrack to *The Social Network* (Fincher 2010), and, for the movie's finale, the folk pop song "Hero" by Family of the Year, from the soundtrack to *Boyhood* (Linklater 2014). Structurally, my narrative was just as inspired by the non-linearity of novels as by films: *The Corrections* by Jonathan Franzen (2001), *Lights out in Wonderland* by DBC Pierre (2010), and *Kafka on the Shore* by Haruki Murakami (2002) were all influences. Developing such alternative readings is a crucial aspect of innovation, because "the more perspectives one can bring to their analysis and critique, the better grasp of the phenomena one will have" (Kellner, cited in Rogers 2012, p. 2).

In *Design as Bricolage*, Panagiotis Louridas unwittingly outlines the difference between ultra-low budget filmmaking, and fully funded filmmaking: "the bricoleur makes do

with what's there, with what he encounters. In that, he differs from the engineer" (1999, p. 518). In this sense, those with \$100M to spend on a film are able to engineer whatever is in the script, limited only by their imagination. In the case of a feature filmmaker with a mere \$50k, the completed film will have evolved into an entirely different entity than what was envisaged at the scripting stage. Louridas articulates this phenomenon, although I am drawing the parallel between his writings and filmmaking:

The final result of the bricoleur's efforts is never an ideal fit to the requirements of the project. The dialog that he enters with his means, the reorganisation that he imposes on them, results in a structure, serving the project that he has assumed, which, because of the contingencies of the process, is always at a remove from his initial intentions. The result is unique and unpredictable (Louridas 1999, p. 520).

Louridas observed that bricolage is "at the mercy of contingencies, either external, in the form of influences, constraints, and adversities of the external world, or internal, in the form of the creator's idiosyncrasy" (1999, p. 521). This was certainly the case on *Pop-Up*. A random selection of the contingencies we had to deal with included an actor being refused entry into the country, the council threatening a fine for filming without a permit, a supporting actor leaving the country forcing reshoots, and a key location having a complete interior make-over between shoots. *Design as Bricolage* could be reworked as an ultra-low budget filmmaking manifesto. And while the paper draws heavily upon Levi-Strauss's *A Savage Mind*, it transcends the latter's more abstract theories, perfectly articulating the tenets of bricolage in creative practice.

In 'Francis Ford Coppola as Bricoleur in the Making of *The Godfather*: An Alternative View on Strategy as Practice' (2013), Hedley Malloch and Birgit Kleymann look at bricolage in feature filmmaking, albeit on a budget significantly higher than those of *Clerks* and *Slacker* et al. They "wish to suggest that the making of [a feature film] is in itself a complex strategic process that holds valuable insights into the strategising process" (Malloch & Kleymann 2013, p. 3). Having studied Coppola's director's commentary to the 2007 special edition of *The Godfather* (1972), they analysed his references to bricolage, such as his adaptation to accidents, his use of outmoded equipment, and his managerial techniques. They argue that directing a feature film is a form of leadership that requires constant adjustment to unforeseen creative, logistical,

temporal, and interpersonal issues. While Coppola's budget was roughly a thousand times that of *Pop-Up* – US\$6M in 1972 roughly equals AU\$45M in 2016 – similar processes of creative management were utilised throughout both productions. This would imply that the lessons learnt through *Pop-Up* are not only viable for microbudget feature films but are also useful lessons for filmmakers embarking on a project with greater funding. Malloch and Kleymann conclude that

much of his bricolage depends upon his sense of intuition. This is highly personal and specific to time, place and the people involved. His bricoleur's tacit knowledge provides an intangible linkage between many resources – financial, human and physical. In this sense, when it works, bricolage is an invaluable strategic competence (Malloch & Kleymann 2013, p. 19).

Malloch and Kleymann reference Huczynski and Buchanan's *Theory from Fiction: A Narrative Process Perspective on the Pedagogical Use of Feature Film* (2004), outlining that while both papers use the feature film as a model for management theory, the difference is that Huczynski and Buchanan only look at the completed film, rather than the process of making the film itself. This differentiation supports a primary argument of my exegesis, that there is potential for systematic research of the film production process, rather than merely the study of completed films.

Use of bricolage in the production of *The Godfather*, *El Mariachi*, *Pop-Up* and others is a result of tacit knowledge being turned into explicit knowledge. The decision-making process would be difficult to transfer to another person without that person sharing a comparable lived experience as the filmmaker. This will be addressed in my chapters on Design Thinking and Reflective Practice, where I detail a system for articulating a creative process.

Creativity

Creativity is not a talent ... It is a way of operating (Cleese 1977).

In studying the effects of constraint on creativity, Caneel K. Joyce (2009) found a qualitative connection, showing how a balance between too much and too little

constraint produces the most creative output. Through my own experiences making ultra-low budget films, I know this to be true. A lack of budget has spurred me to use divergent thinking, with the resultant solutions benefitting the film. It is the arrival at this "Goldilocks zone" between inspiration and compromise that I hypothesise to be a key aspect of project design in microbudget cinema, and which I explore in this chapter.

While I have been labelled "creative" since I was a small child, nature was not necessarily trumping nurture to produce this outcome. I understand that any moments of inspiration were a confluence of environment, predisposition, problem solving, and luck. In *The Social Production of Art* (1993, p. 19) Janet Wolff argues that "all action, including creative or innovative action, arises in the complex conjunction of numerous structural determinants and conditions". In questioning popular notions of creativity being bestowed upon the lucky from birth, her research aligns with modern theorists such as Mihail Csikszentmihalyi and Philip McIntyre, who consider creativity's genesis to sit somewhere between nature and nurture – socially constructed rather than innate, and a consequence of circumstance:

creativity is not the result of the extraordinary operation of some universally fixed and mystically transcendent process, but is, in part, a mundane matter of a creative agent immersing themselves in a domain of knowledge and the selection and validation of the variation being socio-culturally dependent (McIntyre 2011, p. 197).

This immersion in a domain is a key prerequisite to achieving "flow" – a mental state allowing for successful creative output – as outlined by Mihail Csikszentmihalyi. He explores the connection between creativity and happiness, and contends that happiness comes to those who become absorbed in a challenging creative task. He notes, however, the practical aspects of achieving peak creativity, and articulates the concepts of both pragmatism and bricolage, stating that "creative people alternate between imagination and fantasy, and a rooted sense of reality". and that "creative individuals are remarkable for their ability to adapt to almost any situation and to make do with whatever is at hand to reach their goals." (Csikszentmihalyi 1996)

Problem solving and creativity – "the combined innate faculties of perception and imagination" (De Duve 1994, p. 22) – must be inextricably linked in any attempt to

create a successful ultra-low budget feature film. Charles Burnette articulated this position in his work on creativity and design, stating that "creative intentional thought is enhanced when petty constraints, and impoverishing inhibitions are avoided, thinking is flexible, and options are kept open as long as possible." (Burnette 2013, p. 6).

In A Film Director's Approach to Managing Creativity (1977) authors Eileen Morley and Andrew Silver studied director Arthur Penn during production of his film Night Moves (1975), starring Gene Hackman. Their analysis looks at film direction largely from a managerial perspective, drawing comparisons to a leadership role in a business arena such as manufacturing. While creativity in the form of painting, novel writing, or composing a song can be the efforts of an individual, creativity on a film production requires a group of people working together, against budgetary and time restraints, to produce a work of art. The study of creativity in feature film production therefore incorporates the study of management systems. Morley and Silver describe a film production as a "temporary system", in which a group of people converge for a short period to create a unique production (1977, p. 1). They outline the circumstances in which creativity is best allowed to flourish, which include an avoidance of phone calls to interrupt the flow of thought on set, a rule which I applied on the set of *Pop-Up* for the same reasons. The article is an astute observation of group dynamics in a film production system, and distils the collaborative requirements of filmmaking into this paragraph:

When the exertion of such effort is accomplished by achievement of the goal, by fruitful collaborative relationships with others, and by the appreciation of those who led the work, most people experience an important and positive sense of satisfaction (Morley & Silver 1977, p. 1).

Pop-Up required the creation of such a "temporary system" with each block of filming. Since I raised the film's funding in stages, I was unable to shoot using a standard timetable, which would entail the completion of principal photography in a single block. Instead, we had a 10-day block, then 2 days, then 5 days, then 7 days etc., stretched out over 2 years. With up to 4 months between blocks, crew members' availability would change, depending on their work and study commitments. Due to the absence of a separate full-time producer, management of these differing groups of individuals fell to

me. Subsequently, time that could have been spent creatively was often spent in an administrative capacity, where I was focused more on crisis resolution than on filmmaking. So while a film set can be defined as a form of bricolage insofar as it is a collaboration between available participants, a potential pitfall on a microbudget production is that collaborators may not have been "selected by the field" (McIntyre 2011), and were therefore not sufficiently vetted.

In Cinematic Creativity and Production Budgets: Does Money Make the Movie? (2005) Simonton studies the link between production budget and cinematic creativity, as manifested in critical acclaim. He studied a selection of films from 1997 to 2001, and correlated their budgets (ranging from \$35,000 to \$200,000,000) with their awards and aggregated critical ratings. Looking past box-office receipts – the usual measure of success in Hollywood – and focusing entirely on their budget-to-quality ratio, Simonton concludes that a large budget does not correlate with a film's artistic quality: "So long as a filmmaker is not committed to creating a blockbuster, cinematic creativity is only weakly constrained by capital investment" (2005, p. 13).

Pop-Up's constraints were inextricably linked with my creativity. When I wasn't dealing with a personnel issue, and was able to actually create, the job at hand was framed entirely by the resources available. And by having a clear problem to solve, such as how to make an empty white wall look interesting, I was forced to incorporate this problem solving into the creative process. The solution to the white wall, as further illustrated in a later chapter, was to rewrite a character as an artist who paints cat pictures, justifying the use of numerous public domain cat photos covering the wall. With a limitless budget, this pragmatic and slightly amusing creative solution may never have occurred.



Figure 3: Scene from *Pop-Up* illustrating the pragmatic use of public domain cat photos in set design.

Design Thinking

What many people call "impossible" may actually only be a limitation of imagination that can be overcome by better design thinking. This is not thinking directed toward a technological "quick fix" in hardware but toward new integrations of signs, things, actions, and environments that address the concrete needs and values of human beings in diverse circumstances (Margolin & Buchanan 1995, p. 19).

A desire to outperform business competition led to a burgeoning industry: studying and sharing the habits of creative people. The resulting mechanism came to be known as Design Thinking – a streamlined system intended to produce innovation. Three notable works in this field are Kees Dorst's *The Nature of Design Thinking* (2010), Peter Rowe's *Design Thinking* (1991), and Bryan Lawson's *How Designers Think* (1980), all of which outline the thinking and reasoning behind designers' problem solving.

Rowe's book studies the process of designing buildings. And while the relationship between filmmaking and architecture could be compared to chalk and cheese, their respective problem-solving processes have numerous similarities. Each deals with clients, a brief, a budget, and an attempt to balance artistry with pragmatism. The book's relevance across various fields is no accident, with Rowe addressing the universality of design thinking theories. A filmmaker can reinterpret his general ideas with a specificity more closely aligned to pixels than bricks. A good example is his

puzzle of Alberti's San Sebastiano's façade, in which the problem solver is faced with a kind of jigsaw puzzle:

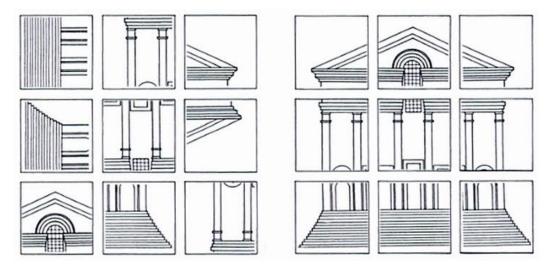


Figure 4: Diagram from *Design Thinking* (Rowe 1991, p. 60) illustrates the puzzle of Alberti's San Sebastiano's façade.

In demonstrating the various tactics possible in approaching the problem, its obvious parallel is in film editing. "One obvious stopping rule in this kind of circumstance would be that the solver should quit when no further improvement in the overall arrangement can be observed under a number of successive arrangements" (Rowe 1991, p. 61). Knowing when to stop is a crucial part of the editing process, as insufficient editing can create a film that feels lethargic or pedantic in its storytelling, while overediting can result in incoherence.

Design thinking is an attempt to articulate the emic processes inherent in design. In microbudget film production, creativity extends from the earliest onset of an idea, through financing, scripting, storyboarding, shooting, editing, and post-production. Design thinking, when applied to this domain, would seek to identify a commonality across multiple film productions. When such a thread can be articulated, it can be communicated to others attempting the same feat, and move from "knowing how" to "knowing that" (Visser 2010, p. 1), making tacit knowledge explicit. But since filmmaking literature tends to investigate completed films rather than the process by which they came to be, applicable literature on the creative process tends to emerge from other fields, such as architecture. Design Thinking is an umbrella philosophy that

can be applied to all creative fields, and can therefor be applied also to the production of cinema. Buchanan articulates the particular challenge of design thinking:

The challenge is to gain a deeper understanding of design thinking so that more cooperation and mutual benefit is possible between those who apply design thinking to remarkably different problems and subject matters. This will help to make the practical exploration of design, particularly in the arts of production, more intelligent and meaningful (1992, p. 15).

Design Thinking is touted as a kind of innovation panacea (Nussbaum 2011). Business managers, always looking for more productivity, believe that creativity can be industrialised. If new ideas can be produced with the efficiency of automobile manufacture, then shares will rise, and bonuses will flow. Nausbamm notes the challenges in corporate attempts to streamline the creative process:

From the beginning, the process of Design Thinking was a scaffolding for the real deliverable: creativity. But in order to appeal to the business culture of process, it was denuded of the mess, the conflict, failure, emotions, and looping circularity that is part and parcel of the creative process (Nausbamm 2011).

Most design thinking literature concentrates on industries such as information technology, with deep management structures, teams tasked with solving problems, and customers consuming products. Some of these ideas are transferrable to filmmaking. Take, for example, Mary Anne Gobble's reduction of company IDEO's 5-step method:

understanding the client, the market, the technology, and the perceived constraints ... through observation of real people in real situations, visualization of possible solutions and users, and prototyping, to end with implementation of the concept. (Gobble 2014, p. 60).

In filmmaking terms this could translate into:

Understanding the backers, the audience, the technology, and the perceived constraints ... through observation of real people in real situations, visualisation of possible

solutions and scenes/shots, and storyboarding, to end with shooting, editing and distribution.

A Nobel Prize winner for economics, Herb Simon's landmark book *The Sciences of the Artificial* (1969) explored several precepts of design thinking before such a moniker existed, and led to his reputation as a founding father of artificial intelligence (Klahr & Kotovsky 2013, p. 145). With the publication of this book Simon was one of the pioneers of design problem solving, in which the creative process is scientifically reduced to a set of tangible steps. While much of the book centres on artificial intelligence and cognitive psychology, its exploration of design processes and strategies can have broader implications outside of AI. His concept of "satisfycing", in which perfectionism is considered an obstacle in the search for design solutions, is closely aligned with my discussion on pragmatism during the production of *Pop-Up* and my case studies. Had I waited for the perfect amount of money and resources to produce the film, the shoot would have been delayed by two years, and I would only now be in post-production. Instead, I opted for a satisfactory amount of financing – just enough to make the film, but not enough to hire famous movie stars. Simon explains his invention of the term:

Since there did not seem to be any word in English for decision methods that look for good or satisfactory solutions instead of optimal ones, some years ago I introduced the term "satisficing" to refer to such procedures. Now no one in his right mind will satisfice if he can equally well optimize; no one will settle for good or better if he can have best. But that is not the way the problem usually poses itself in actual design situations (1969, p. 119).

Satisficing and pragmatism both have the same goal: to get the job done. It's better to complete a good film than to wait indefinitely in attempting to make the perfect one.

In its attempt to articulate tacit thought processes, design thinking is aligned with the concept of "wicked problems" – problems too complex to have an easy solution, and which may constitute wide-reaching social, environmental, economic, or security concerns. In 1973 Rittel and Webber specified several characteristics of "wicked problems" in social policy planning, concluding that "every wicked problem is

essentially unique" (1973, p. 164) and "every wicked problem can be considered to be a symptom of another problem" (p. 165). While a definition of a wicked problem typically includes examples such as climate change, the AIDS epidemic, and terrorism, it can also be applied to smaller scales such as software development, design, and film production. Buchanan (1992) noted the non-linear nature of creative problem solving, that it is more complex than merely problem definition and solution. He describes how early research into design-based problem solving was to seek a logical path which can be reused in multiple scenarios. The issue, however, is that wicked problems defy logical thinking patterns.

A film production is a good example of a wicked problem due to constantly evolving conditions. Take, for example, the circuitous nature of non-linear editing. Apart from the opening and closing shots, no shot in a film stands in isolation – each is the central shot in a sequence of three shots. So in the sequence of shots A, B, C, and D, altering shot B will also affect shots A and C through its interaction with them. But by this subsequent alteration of C, it also affects shot D, and so on. Given that the creation of a single shot requires the confluence of numerous practitioners, often after years of planning, filmmaking's overall complexity becomes apparent. When editing itself is arguably a wicked problem, feature film production as a whole can safely earn this designation. The thought processes of a feature film production are fine-tuned through the various stages: conception, writing, storyboarding, location scouting, casting, scheduling, shooting, editing, and sound design. Like shots A and C being affected by editing shot B, each of these elements affects the other, and shapes the film moment by moment. This interplay between elements can result in a final product vastly different to that envisaged at the script stage.

An early scene in *Pop-Up* depicts the character of Mick working as an elevator repairman, only to collapse due to phobia-induced panic. In this case, the scene was shaped largely through scheduling constraints. The actor who was cast as the experienced elevator repairman was able to offer only two hours of his time. But I felt he was the perfect fit, so I was determined to cast him in the role. With this time restriction in mind, I reassessed the scene, and concluded that I could remove the characters' initial approach to the elevator, resulting in the removal of the following two scenes:

EXT DAY OFFICE BUILDING

Mick and another WORKMAN arrive at an office building.

The workman is in his late 50s.

They're dressed in full tradesman attire, including helmets, gloves, Day-Glo vests and boots.

Mick wears a utility belt with many tool compartments.

They walk inside.

INT DAY FOYER

Mick is looking very nervous.

The other workman speaks to the SECURITY GUY.

WORKMAN

G'day mate. You've got a busted elevator?

SECURITY GUY

Yeah mate. Just over there.

WORKMAN

Cheers.

Mick and the workman walk over to the elevator.

There are several functioning ones, and one with a "no entry" sign out the front.

They step past the sign and open the door.

Instead, I concluded that I could cut directly to Mick standing inside the cramped space next to his new colleague. We would then shoot the entire scene in a master shot, followed by one close-up as he collapses to the floor.



Figure 5: Shot 1 of 2 from elevator scene in Pop-Up.



Figure 6: Shot 2 of 2 from elevator scene in *Pop-Up*. Shooting in such minimal coverage was pragmatic yet effective.

Here Buchanan's description of wicked problems in design thinking closely aligns with pragmatism. In shedding unnecessary elements, the scene was streamlined, resulting in faster story development. The effectiveness of this scene has informed my filmmaking practice, and I now have greater confidence in minimal scene coverage.

"There are no true or false answers" to wicked problems; they are more likely to be considered "satisfying" or "good enough" (Rittel & Webber 1973, p. 163). In the case of the elevator scene, the solution was good. It created an amusing and compelling ellipsis by cutting straight from the elevator-phobic Mick asking his employment consultant, "When does it start?" to him standing in the elevator. Had the preceding

scene been shot, it likely would have been cut during the editing phase, as its redundancy would have eventually become apparent. In this case, the constraints of an actor's availability were of benefit to the production.

The challenge for designers is to "conceive and plan what does not yet exist, and this occurs in the context of the indeterminacy of wicked problems, before the final result is known" (Margolin & Buchanan 1995, p. 17). To conceive and plan what does not yet exist, then make adjustments as elements fall into place, is the foundation of microbudget filmmaking.

Reflective Practice

Theory, generally speaking, can be defined as an explanation of how things work in practice. Much academic theory is essentially meta-theory, that is theory about theory, or theory about practice by looking at practice as an outsider. The theory I am examining, which exists primarily at the tacit level, is theory about practice resulting from participation in the practice. Upon being recorded and shared, the knowledge moves from the tacit to the explicit domain, and only then does it become a theory.

"Arguably the most widely recognized proponent of pragmatist principles in design" (Dalsgaard 2014, p. 150), Donald Schön provided a succinct definition of tacit learning in *The Reflective Practitioner* (1983, p. 8), writing that "competent practitioners usually know more than they can say". Schön notes connections between practice and the formation of knowledge, and the ways in which knowledge can be formed, stating that

Doing and thinking are complementary. Doing extends thinking in the tests, moves, and probes of experimental action, and reflection feeds on doing and its results. Each feeds the other, and each sets boundaries for the other (Schön 1983, p. 280).

According to Schön, *knowledge in action* is a form of tacit knowledge, in which a creative practitioner is acting upon instinct, perhaps unable to articulate the thought processes forming each decision. An editor knows when to cut from one shot to another, in increments lasting a mere 25th of a second, and barely discernible to the untrained eye. And yet in asking why they chose that particular timing, they might simply reply

that it "felt right". While they may not have a conscious answer, their choices are based on emotions, experience, practicalities, and influences. Reflection in action is defined by an artist's cognizance of their thought patterns during the actual process of creation, as they attempt to solve a creative problem. Reflection on action takes place when the artist has completed their work, and they reflect on the production process, studying the decision making that took place, and outlining the lived experience of arriving at a certain result. The latter is a tool for understanding the design experience. Hermeneutic phenomenology – making meaning from the lived experience – is a research methodology closely aligned with reflection on action, allowing the researcher to portray a creative process in greater depth than might be covered in a textbook on the subject. As an example of reflection on action, I will outline the lived experience of a filmmaking phenomenon: framing. Since a large part of the film director's job is to compose an image, I could potentially provide thousands of images here, though I have reduced them to six examples. In the same way a photographer frames a shot, the director needs to do this 25 times per second. But ask a director of the specific mechanism they use to choose their framing, and they're likely to have difficulty articulating it. Perhaps they'll have a similar reply to the editor, that they "just know", or they "have a feel for it". I can attest to the framing process being visceral. I feel something akin to mild displeasure, even disgust, when a shot is incorrectly framed. Conversely, when I'm happy with the framing, there's a sense of calmness – a tangible absence of tension.

But how could I explain this process to someone else? To say to "just feel it" is akin to mysticism, à la Obi-Wan Kenobi urging Luke to "use the force". In *The Reflective Practitioner*, Schön outlines a model for articulating the process by which problems are solved. And by articulating the process of design, it not only benefits the practitioner by allowing them to be cognisant of the thought processes involved in a successful work, but it also allows the process to be shared with others. It is a progression from "knowing how" to "knowing that" (Visser 2010, p. 1). Dalsgaard articulates this progression in stating that he bears a "personal history of past experiences and formed habits that guide [his] current experiences and actions", but his "ongoing interactions in situations will change and expand upon [his] habits and repertoire of experiences" (2014, p. 147). He differentiates the two concepts of "knowing-in-action" (tacit knowledge) verses "reflection-in-action" (explicit knowledge):

knowing is formed in and through interaction with the situation. This transformative relationship is directed towards understanding and acting in response to the situation and though we draw on past experience and knowledge, this repertoire is challenged through inquiry and may evolve or be expanded in the process (Dalsgaard 2014, p. 149).

The difference is that the former is subconscious, and the latter conscious. Framing a shot is usually somewhere between the two states. But by pausing to reflect on the decision-making process, it can become conscious. My framing tends to be symmetrical, or adheres to the "rule-of-thirds", forming compositions that feel "calm" to me.

Examples of "calm" compositions in *Pop-Up*:



Figure 7: Still from *Pop-Up*



Figure 8: Still from *Pop-Up*



Figure 9: Still from *Pop-Up*

Reflection upon this point has aided my work by articulating the relationship between framing and tension. If I am usually framing to induce a sense of calm, then conversely I can induce tension when required by intentionally framing in a less harmonious composition – the visual equivalent of striking the wrong note on a guitar. With reflection, the "wrong" note can be "right" in a certain context.

Examples of "tense" compositions in *Pop-Up*:



Figure 10: Still from *Pop-Up*



Figure 11: Still from Pop-Up



Figure 12: Still from *Pop-Up*

The difference in composition style between the calm and tense images is immediately obvious. Adhering to either central or "golden section" alignments, the calm images are weighted with the focus towards the centre, whereas the tense compositions have the subject's gaze focused outward, or, in the final image, upside down.

Dalsgaard suggests that our past experiences form our knowledge and habits, which then inform our initial comprehension of a situation, and that it is

on this backdrop that situations may appear problematic when our habitual response does not lead to the expected outcome; in that respect, the indeterminacy of a situation is what gives rise to thought (2014, p. 147).

When making a microbudget feature film, reflection-in-action is most useful in "situations of uncertainty, instability, uniqueness and value conflict" (Schön 1983, p.

50); the filmmaker is tasked with solving problems daily, armed with the knowledge developed from past experiences, and adapting it into each new situation. With a tight schedule, and the cast, crew, equipment and locations costing money every moment, extended pondering cannot be afforded. The filmmaker must think on their feet, and arrive at a solution to a problem quickly, based on the stimuli, the schedule, the items at hand, and the results of past decisions in a similar situation.

Theory vs Practice

While several filmmakers such as Sergei Eisenstein and Jean-Luc Godard have also been theorists and critics, film criticism today is largely concerned with the finished product, with little consideration given to the minute-by-minute decisions sculpting a film. There is, therefore, a disconnect between etic and emic film literature. Film criticism is largely etic, the domain of academics positioned outside the production process. My contribution to the field is emic – an enquiry into filmmaking from the perspective of its practice.

Research on photography has addressed this. In *The Crisis of the Artificial: Why Does* Everything Look the Same? (2013) Mark Roxburgh investigates whether realism in photography has a conditioning effect on society, creating a predisposition to view reality in a restricted framework. In looking at indexicality – the relationship between the subject and the resulting photograph – Roxburgh (2013, p. 136) notes that his "interest in developing an existential phenomenological approach to both photographic practice and theory" is the type of interest currently lacking in academic literature on photography. In discussing the evolution of photographic criticism, he observes that academics with a purely etic perspective, whose hands never operate a camera themselves, do not meet the same challenges as those in the field, stating that "it is easier to develop theories that pull apart or deconstruct things than it is to develop theories that are about making and constructing things" (2013, p. 127). In A Photograph is Never Alone, Blake Stimson (2008, p. 104) looks at the philosophy of photography as part of the "lived, embodied experience ... of globalization". He posits a humanistic reading of photography, proposing that every photo ever taken is connected to every other photo ever taken throughout the world. In discussing the work of Robert Frank, he describes the lived experience of taking a photo:

the movement of the finger depressing the shutter, an action that might at once be understood as aggressive toward its object, like the squeezing of a trigger, and defensive of its subject, like the nervous blinking of an eye; second, the turning away of the photographer's body and attention from that view as it is being captured on film; and, finally, the turning inward of the photographer's attention from the world outside to his own affective response (Stimson 2008, p. 113).

And again, in referencing Cartier-Bresson:

recognizing an event, and at the very instant and within a fraction of a second rigorously organizing the forms you see to express and give meaning to that event. It is a matter of putting your brain, your eye and your heart in the same line of sight (Stimson 2008, p. 114).

These insights express the lived experience of the instant a photographer takes a photo, and can therefore be considered emic. The filmmaking equivalent – the thought processes of the director throughout production – is the focus of this exegesis.

David Bordwell is arguably "the most well-known film scholar of our time" (Nielsen 2004, p. 1). Although his work is insightful, it remains etic – originating from a position outside of the film production process. Having not made films himself, he has not personally experienced the wide-ranging confluence of phenomena that shape a film. For example, Bordwell describes the way fellow theorist Robin Wood labels director Kenji Mizoguchi as "the long take director" (Nielson 2004, p. 5) suggesting that Wood has failed to articulate the meaning of this directorial style. I would add that by considering the on-set reasoning behind long takes, as mentioned in a later chapter regarding the Romanian film 4 Months, 3 Weeks and 2 Days (Mungiu 2007), Bordwell may discover why such a creative decision might have been made. Mizoguchi may have been in a similarly time-poor situation as Romanian director Cristian Mungiu, reduced his coverage accordingly, and upon discovering that the scenes still conveyed the desired emotional and narrative elements, used this technique in subsequent films. Such an assessment of Mizoguchi's lived experience is only conjecture; he died at age 58 in 1956, leaving questions unanswered. Had Bordwell made films himself, it may have

occurred to him to question the circumstances leading to such directorial decisions, rather than to simply interpret their results.

Some academics have, however, made their own films. Often produced as an extension of their research, the films have a tendency to focus on representation and anthropology. Michael Noonan's research into the representation of disability resulted in his PhD film *Down Under Mystery Tour* (2010), a feature-length drama written by and starring intellectually disabled performers. Kathryn Millard's films are mostly documentaries, though she has also written and directed two feature dramas. Her research is concerned with screenplay structure, the emergence of new media and its effect on storytelling, and on the convergence of drama and documentary, stating she has "moved away from the industrial screenplay to embrace the more open processes of the film essay and 'thinking cinema'" (Millard 2013, p. 1).

Academics who are also filmmakers seem largely drawn toward documentaries. This is logical due to factual filmmaking's similarity to academic writing, insofar as they both investigate an existing topic, and present a unique viewpoint. In the rare cases of drama filmmakers also being academics, the films of Millard and Noonan seem designed to explore their research topics in a narrative form. Noonan's investigation of the representation of disability led to his collaborating with intellectually disabled actors, who also wrote the script (Noonan 2010, p. vi). Millard's (2013, p. 1) latest feature combines documentary with drama, and is "inspired by social psychology experiments on conformity and obedience", tying in with her research on this topic. Millard (2013, p. 2) describes her paper "A Screenwriter's Reality Hunger" as her "own manifesto-in-themaking – part of an ongoing investigation into what it means to write across various kinds of screens in a digital era". In a rare example of a genre film being produced for the purposes of academic enquiry, Australian academic Donna McRae wrote and directed the low-budget feature-length thriller Johnny Ghost (2015) for her PhD. While the film's home-movie aesthetic reveals its budgetary constraints, it was accepted into several international festivals, notably those specialising in horror or sci-fi. It is now available via video-on-demand on Vimeo.

In my case, the content of *Pop-Up* is not the primary focus of my research. Instead, I am analysing the methods of the film's production, detailing the thought processes, and

comparing it with the experiences of other filmmakers facing similar challenges. I am exploring the connection between constraints and creativity, illustrating the way filmmakers adapt their work to their resources. Though while my research focuses on the practical aspects of film production, a crossover between theory and practice is found in hermeneutics – the study of meaning making. To communicate to an audience using the medium of film, the audience must derive meaning from it – not only in the sense of its "meaningfulness", as distinct from it being mindless entertainment, but through fluent communication in the language of cinema. For even the most basic goal to be reached – for a film to be comprehensible – the filmmaker requires an understanding of the relationship between meaning-production and the strategic arrangement of images and sound. Montage theory, formalism, and semiotics are all fields that analyse this relationship.

The hermeneutic circle, central to interpretation theory, preaches that an explication of a text occurs only after a prior understanding of it, yet that prior understanding is justified by the careful explication it allows. In other words, before we can go about discussing and analysing a text we must have a global conception of its meaning (Andrew 1984, p. 96).

Editing is a form of bricolage insofar as the editor must make do with available footage, then through careful juxtaposition, create meaning. This process of editing could be described as a "hermeneutic circle" given that the editor creates meaning through juxtaposition, then receives meaning from the new combination of elements, which then inform further choices. The process of connection is when *footage* becomes a *film*. But to transform such decision making into meaning making requires an understanding of the interplay between more than images. The filmmaker must remain aware of pace, tone, dialogue, music, ambient sound, themes, subtext, colour, and rhythm, across individual shots, scenes, sequences, and the film as a whole. The interplay between these elements has been extensively discussed in academic literature, with interpretive systems such as formalism, realism, image construction, narrative, and figuration proving "to be the key areas for contemporary [film] theory" (Andrew 1984, p. 15). And since film can be interpreted through a multitude of other lenses, including feminism, psychoanalysis, genre, narratology, and mythology, a complete assessment of each approach would be impossible in this section. I am focusing on the interpretations that

best allow a discussion on the pragmatism and bricolage. "In film theory the term 'Formalist' is used to refer to the work of both the original Russian Formalists and the contemporary work of the Neo-Formalists, David Bordwell and Kristin Thompson" (McVeigh 2008, p. 14). Formalism analyses the technical elements of film production and the ways in which they combine to create an emotional and/or intellectual reaction in the audience, in which "form and content [are] distinctly different yet interdependent components of a work" (McVeigh 2008, p. 25). This aligns with the practical considerations of pragmatism and bricolage, which also analyse the interplay between production techniques and the resulting work. Soviet Montage theory posits that meaning arises through the juxtaposition of imagery, and presents specific methods for meaning generation, in which the filmmaker may consider "the graphic, rhythmic and spatial relations between the two shots that are joined or relations within a single shot" (McVeigh 2008, p. 170). Given that motion picture editors must utilise existing footage and must subsequently create meaning from the items at their disposal, Soviet montage (and indeed editing in general) is situated within the broader paradigm of bricolage. Semiotic analysis attempts to introduce "scientific rigour to film criticism, to allow for more systematic and detailed analyses of movies" (Giannetti 2008, p. 522). It is concerned with meaning making through an information system, whereby each "piece of cinema" has "a certain configuration, certain fixed structures and figures, which deserve to be studied directly" (Metz 1974, p. 3). In the case of cinema, this system is the formal juxtaposition of images with sound, with a temporal arrangement designed to create meaning and induce an emotional response in the audience.

In the 1920s, Marxism and Soviet montage, in particular the work of Sergei Eisenstein, laid the groundwork for modern film theory and techniques by proposing a formal system of editing. Eisenstein was personally interested in Marxism and the behaviourism of Pavlov (Andrew1984), which directly guided his theories of visual juxtapositions. Soviet Formalism was influenced by Marxism to create cinema for the people, though its key function was not in the delivery of entertainment but ideology. "Montage film-makers and the Soviet government ... shared the same view that cinema should serve primarily as a medium of propaganda" (Russell 2009, p. 86). Soviet filmmakers formed approaches of editing which are still used today. In *The Cinema of Eisenstein* (1993) David Bordwell provides a detailed analysis of each of Sergei Eisenstein's films, exploring their relationship to his theories, illustrating specific uses

of each editing technique. His study encompasses the ideological landscape that nurtured the Soviet film industry, and outlines examples of where Eisenstein's influence is felt today. Bordwell highlights the fact that Eisenstein was a filmmaker, a theorist, and a teacher. Bordwell himself can only claim to be two of these three, having not been behind a movie camera himself. He has a thorough understanding of Eisenstein's techniques, his motivations, and his semiotics. And yet he cannot fully appreciate the lived experience of creating 90 minutes of cinema. For Bordwell to take his criticism to a deeper level, he would need to spend a few gruelling weeks on location to understand how and why an image is constructed. He would then learn that external factors determine much of what makes it onto the screen.

Bruce Elder writes that Eisenstein's most fundamental interest was not storytelling, mastery of his craft, or sharing his worldview with a wider audience. In Elder's words,

Eisenstein's most fundamental interest was in the means by which a graphic sign (and, in his later work, an iconic sound), because of its resemblance to its referent, possess[es] natural, direct and immediate signification and, thereby, made open to the possibilities of narrative and drama (1995, p. 35).

The filmmaker must indeed find visual shortcuts to convey narrative information in a succinct manner, but to reduce Eisenstein's raison d'être to a mastery of semiotics says more about the writer's interests than Eisenstein's. My approach in making *Pop-Up* was a more pragmatic approach to formalism – the story guided my form. If an element did not propel the story forward, it was removed. By giving primacy to story, the editing style formed naturally.

On a budget of \$50,000, US filmmaker Shane Carruth made *Upstream Color* (2013), which favours form over coherence. Its editing adheres closely to Eisenstein's theory of intellectual montage, in which images are juxtaposed based on their symbolism. In favouring symbolism and abstraction over storytelling, the film has divided critics as noted earlier. I prefer films that prioritise storytelling, with the goal of rewarding the audience for paying attention, but not to the point of confusion. I have ensured that *Pop-Up*'s narrative is clear, despite its non-linearity, and that my adherence to the rules of montage remains in the service of the story, not giving precedence to formalism itself.

While perhaps not as well known as Eisenstein, filmmaker Lev Kuleshov, director of numerous Soviet films including *The Extraordinary Adventures of Mr West in the Land of the Bolsheviks* (1924), demonstrated the power of cinema in an intriguing experiment. Now known as The Kuleshov Effect, he juxtaposed an expressionless face with various other shots, including a child in a coffin, a beautiful woman, and a bowl of soup. He noted that viewers would then project the appropriate emotion onto the face depending on the context, such as love, lust, or hunger.

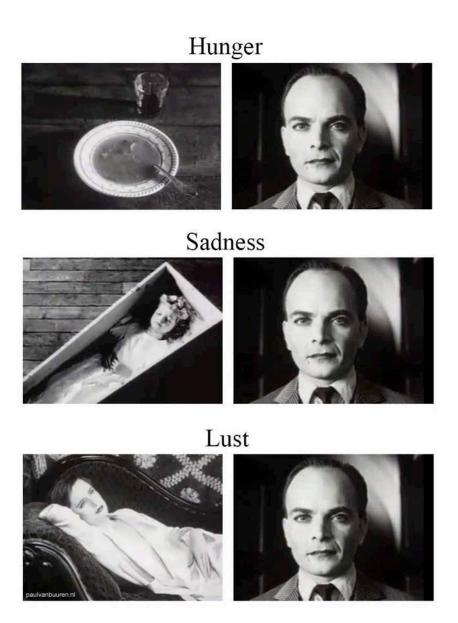


Figure 13: The Kuleshov Effect. The viewer projects an appropriate expression onto the character's face depending on context. (Toscano, M 2015)

A notable example of this technique is in *Return of the Jedi* (1984), in which Darth Vader watches the evil Emperor electrocute his son Luke, who screams for his father's help. Despite Darth Vader being unable to show emotion due to his immovable mask, the human mind places an expression on his "face", aligned with his emotional state. In viewing the film, Darth Vader's mask seems almost to physically change – crisis appears in his eyes as he decides between good and evil.

The Kuleshov Effect assists the director in two pragmatic ways. Firstly, the scene does not rely solely on performance. As mentioned in the Darth Vader example, the viewer forms the connections through context. The meaning is created in the mind of the audience, rather than in an actor's performance. Secondly, it is easier to frame two separate close-ups than to create a wide shot encompassing two subjects, as there are fewer objects requiring lighting, and composition is simpler. In pragmatic terms, this device can be utitlised as a solution to time restraints, or to augment a performance.

Amy Sergeant's *Vsevelod Pudovkin: Classic Films of the Soviet Avant-Garde* (2001) looks at the films and writing of Vsevelod Pudovkin, a Russian theorist who has not received the same level of academic study as Eisenstein, despite his contributions to the medium; his "5 Editing Techniques" (Richards 2013) are applicable to contemporary filmmaking generations later. The primary difference between two filmmakers' most enduring theories is that Eisenstein's were designed to express an ideology through the medium, while Pudovkin's were about mastering the medium itself. In comparing Eisenstein's theories with those of Pudovkin, the latter have a more pragmatic function thanks to their focus on practical editing techniques. *Pop-Up* uses a mixture of techniques from both Eisenstein and Pudovkin – a bricolage of montage theory.

While montage theory investigated form through techniques of editing, formalism went further by addressing the entire work, including the mise en scene, music, sound, camera movements, colour, visual effects, and editing. Formalism investigates the unique language system of motion pictures, positing theories as to why a viewer reacts to certain juxtapositions of sight and sound – looking at the technical construction of a film as distinct from its symbolic, cultural, ideological or philosophical positioning. In 1979 David Borwell and Kristin Thomson's *Film Art: An Introduction* was released,

which detailed the formal aspects of cinema. It is a rare example of academic literature addressing pragmatism during the production process, in which they noted:

Every artist works within constraints of time, money, and opportunity. Of all arts, filmmaking is one of the most constraining. Budgets must be maintained, deadlines must be met, weather and locations are unpredictable, and the coordination of any group of people involves unforeseeable twists and turns. Even a Hollywood blockbuster, which might seem to offer unlimited freedom, is actually confining on many levels. Big-budget filmmakers sometimes get tired of coordinating hundreds of staff and wrestling with million-dollar decisions, and they start to long for smaller projects that offer more time to reflect on what might work best (Bordwell & Thompson 2006, p. 25).

Louis Giannetti's *Understanding Movies* (2008) is similar to *Film Art* in its overview of formalist film theories, while also looking at ideological readings such as feminism, sexuality and religious viewpoints. Despite its thoroughness, it lacks any detailed analysis of pragmatism or constraint in filmmaking. And while Bordwell is happy to admit that even Orson Wells had to work within certain constrains in *Citizen Kane*, Giannetti joins the pantheon of critics for whom *Citizen Kane* was seemingly immaculately conceived – its production process ignored completely.

From the first moving images courtesy of the Lumierre Brothers, film has used a coded system to communicate ideas, information, and stories. Today's viewers are "fluent" in this language, although they may take their film fuency for granted. In the same way that spoken languages have evolved over millennia, the language of cinema has evolved since its invention in the late 19th century. For example, a slow dolly into a person's face could imply that a protagonist is making a decision, remembering a loved one, or analysing a problem. A low angle looking up at a character can connote power. And as we've seen in the Kuleshov Effect, image juxtapositions can communicate a story or a feeling, depending on context.

Drawing predominantly on the theories of structural linguistics, film semiotics explores the relationship between language and cinema. It is an analysis of meaning making, and the deconstruction of film as an object. The foundation of structural linguistics is the notion of the "sign, signifier and signified". The "signified" is an idea being expressed, which forms a "sign" when combined with its means of expression ("signifier") (Saussure 1998, p. 832). In a cinematic context, the theme and story (signified) are expressed through a combination of images and sound (signifier) to form the complete film (sign). Reducing a film into a singular symbolic system is complicated, however, by the confluence of numerous elements:

Whereas the dictionary is composed only of graphemes, arranged alphabetically and interrelated of synonym, antonym, etymology, and verbal example, a cinematic dictionary would have to be capable of interrelating signifiers of various sorts: spoken words, music, sound effects, graphic signs which appear on the image track, representational images, image deformation, and so on (Andrew 1984, p. 67).

J Dudley Andrew argues that there is "no semiotics of the cinema, but only a semiotics of this or that cinema during this or that epoch" (1984, p. 15). In this discussion I am making reference to semiotics of classical continuity editing in the modern epoch. In *Pop-Up*, my understanding of formalism, montage and semiotics is distilled in the sequences without dialogue, as these rely only on sound, images, and juxtaposition to convey story and tone. An example is the scene in which Rada consumes a bottle of vodka. She is shown drinking straight from the bottle, then there is a jarring ellipsis, and she is seen waking up on the beach, her make-up smeared. We then cut back again to her drinking vodka, concealing her birthmark, and embarking on a drunken rampage through the city leading to the beach, and to the spot we'd initially cut to.



Figure 15: Still from *Pop-Up*



Figure 16: Still from Pop-Up



Figure 16: Still from *Pop-Up*. This sequence features an ellipsis followed immediately by a flashback leading to the previously seen beach scene.

The film here demands a fluency in cinematic grammar to be comprehended. The audience is expected to immediately connect the vodka abuse to the beach, the gap in time piquing their curiosity as to what happened in between. The audience is then rewarded with the answer; the next two minutes depict the missing events, frequent ellipses providing a subjective account of the drunken experience. Just as "hermeneutics reminds us that words carry within them the traces of earlier acts of signification" (Andrew 1984, p. 93), so too does the meaning created in one shot, scene, or sequence carry traces of all that has come before it. It is only through skilful arrangement of these acts of signification across the duration of the film that meaning can be produced, and transferred to the audience.

CASE STUDIES

No matter how it's financed, no matter how high or low the budget, for me an independent film emerges when filmmakers started out with a story they wanted to tell and found a way to make that story. If they ended up doing it in the studio system and it's the story they wanted to tell, that's fine. If they ended up getting their money from independent sources, if they ended up using their mother's credit cards, that doesn't matter (Sayles, cited in Holmlund & Wyatt 2005, p. 129).

In the United States, the budget of a single feature film can easily outstrip the gross domestic product of an entire country. At US\$410M, the budget of *Pirates of the Caribbean: On Stranger Tides* (2011) roughly equalled the GDP's of Tuvalu, Monserrat, Naura and Kiribati combined (Central Intelligence Agency 2001), while the \$15M budget of *Keanu* (2016) has been described as "meagre" by *Variety* (Lang 2016). At the other end of the spectrum, the budgets of *Clerks, Pi*, and *Slacker* were made for an average of US\$50K, adjusted for inflation; my film *Pop-Up* has been made for a similar figure. Such capital would have produced approximately one second of *Pirates of the Caribbean 4*. In this chapter I investigate the ways that filmmakers used pragmatism and bricolage on their breakout films, despite their budgets being .33% of "meagre".

While academic writing can investigate the nuances of mise en scene, semiotics, or a film's ideological stance, only the filmmaker can paint a picture of the lived experience during the production process. Descriptions of David Fincher shooting without permission in Boston on *The Social Network* (2010), Steven Spielberg's technical problems on *Jaws* (1975), and Richard Linklater's struggles to complete a shot before sunset in *Before Sunset* (2004), demonstrate that films share the same challenges, irrespective of their budgets. The difference is that an ultra-low budget film likely lacks the option of lighting a fake sunset after dusk, so the impetus to finish punctually creates additional pressure. As Csikszentmihalyi (1990, p. 24) wrote in *Flow: The Psychology of Optimal Experience*:

This ability to persevere despite obstacles and setbacks is the quality people most admire in others, and justly so; it is probably the most important trait not only for succeeding in life, but for enjoying it as well. These periods of struggling to overcome challenges are what people find to be the most enjoyable times of their lives.

When I write about "microbudget feature filmmaking", it is difficult to comprehend its monetary implications without context. To gauge a typical budget for a film, it is useful to look at the budgets of films by the Dardenne Brothers. Their films mirror the standard ingredients of low-budget filmmaking – they're focused on characters and relationships, are set in the contemporary era, feature only existing locations, and use mostly handheld cameras and diagetic sound ("acoustics directly attributable to viewable material sources or to sources tacitly linked to particular actions within the narrative" [De Valk & Arnold 2013, p. 54]). While an ultra-low budget film produced in a similar manner may have a budget of \$50,000, the following budgets for the Dardennes' films illustrate what they might cost had the producers paid for the cast, crew, locations, equipment, and production facilities:

Rosetta €1.9m

The Son €2.6m

The Child €3.6m

The Silence of Lorna €4m

The Kid with the Bike €5.8m

2 Days 1 Night €7m

(Mosley 2013, p. 5)

The vast differences between the Dardennes' budgets and that of Kevin Smith's *Clerks* illustrate the challenges ultra-low budget filmmakers must overcome. Such tenacity has not gone unnoticed in the professional literature I have studied, as noted by John Pierson (1996, p. 236):

The key personality elements in most cases are a writer/director who is almost overconfident and a core support group that feeds the wonderful delusion that come hell or high water the film will be made!

Production diaries and autobiographies elucidate the delicate balance being struck between pragmatism and artistry. These diaries, such as Rodriguez's *Rebel Without a Crew* (1995), don't conform to standards of academic literature, but give an insight into

the nature of filmmaking to which academics may not be privy. I have analysed these case studies within the framework of the theory I have been researching, namely that pragmatism and bricolage play a significant role in the production of ultra-low budget feature films.

A potential problem with case studies is that an individual subject may not represent the issue as a whole. For example, it would be difficult to judge the prevalence of pragmatism and bricolage in microbudget films as a whole using only the film *Slacker*. While Linklater has stated that the entire concept of the film was based around a constraint – the inability for actors to commit for longer than a few days – this example alone does not prove that *Clerks*, *El Mariachi*, *Pi*, and *Upstream Color* were made using a pragmatic doctrine. The solution is to analyse several ultra-low budget films to find a common thread, and to cross-reference my own observations during the production of *Pop-Up* with these filmmakers' production journals, interviews, and writings.

My own production experience informs my reading of this professional literature. In positioning myself as the filmmaker reading about the filmmaker, I am able to interpret literature as a fellow pragmatic bricoleur. During the filmmaking process, I interpret how I see the world, then portray what I see – a director being a "manipulator who tries to impose a particular vision of the world onto viewers" (Caranfil, cited in Filimon 2014). By sharing this viewpoint with an audience through the medium of film, viewers' own value systems may be adjusted. To acquire "meaning through a process of understanding and interpretation" is a tenet of hermeneutic phenomenology (Wilcke 2002, p. 7).

In *Spike, Mike, Slackers and Dykes* (1996), John Pierson talks to Kevin Smith, writer and director of ultra-low budget trailblazer *Clerks*. Smith explained how he formed his blueprint for *Clerks*, which would later go on to launch a career spanning 12 feature films as writer/director and counting. He named Richard Linklater's *Slacker* as his primary inspiration; it was the film that gave him the confidence that it could be done, since it was made outside of Hollywood on a shoestring budget. He cited Jim Jarmusch's *Stranger than Paradise* for its achievable, minimalist black-and-white aesthetic. He named Hal Hartley's *Trust* and *Unbelievable Truth* as his "dialogue model". And to complete his model for *Clerks*, he named Spike Lee's *Do the Right*

Thing, since it was a "character-driven piece that takes place all in the span of one day, in one block" (Pierson 1996, p. 22).

El Mariachi (1991) remains one of the most well-known microbudget features, and a rare example of a film's budget being incorporated explicitly into its marketing strategy. The \$7000 spent by director Robert Rodriguez on its initial incarnation is oft-quoted, and his diary *Rebel Without a Crew* (1995) is useful reading for any filmmaker planning to embark upon the feature film production journey. Rodriguez articulates the principles of bricolage in microbudget feature filmmaking, though without using that term:

How do you make a cheap movie? Look around you. What do you have around you? Take stock in what you have. Your father owns a liquor store – make a movie about a liquor store. Do you have a dog? Make a movie about your dog. Your mom works in a nursing home, make a movie about a nursing home. When I did *El Mariachi* I had a turtle, I had a guitar case, I had a small town and I said I'll make a movie around that (Rodriguez 2008, p. 2).

To be an "independent" filmmaker implies operation outside a funding hegemony, such as the US studios, or Australian government bodies. The French New Wave, which emerged in France during the 1950s and 60s is an early example of rebellion against a movie making system. Armed with newly available 16 mm cameras compact enough to enable location shooting with minimal crew, filmmakers Truffaut and Godard et al. created a resistance movement against a perceived conventionality in the existing French cinema. Chris Wiegand (2012, p. 8) summarised the impact that new technology had on the filmmakers:

Developments in documentary filmmaking meant that lighter and cheaper hand-held cameras had become more widely available and affordable to young directors. Faster film stock that could be used in darker conditions (thus outside the studio) had also been successfully developed. Synchronous sound recorders and lighting equipment became equally affordable and portable. These breakthroughs meant directors no longer needed a studio to make a film, as real locations provided free, authentic backdrops. Crews became smaller and in general the directors were able to make their first films very cheaply. Suddenly, filmmakers had more choice over the kind of film that they wanted to make and who would appear in it.

Three decades after Jean-Luc Godard's *Breathless* (1960) took France and the rest of the world by storm, the American "indie" movement of the 1990s drew parallels due to its outsider approach. Smith, Linklater, and Aronofsky were all determined to make a feature-length film, but realised that studios would not allocate multi-million dollar budgets to unproven directors. Subsequently, they each wrote their own scripts, and raised the necessary funds themselves. Their respective investments were rewarded, and each filmmaker has since enjoyed a successful career. Linklater's and Aronofsky's films have received Oscars, and Smith has "loyal fans, willing to follow him anywhere he commands" (Schilling 2016). With actors and crew willing to work for deferred payments, access to borrowed equipment, and reliance upon existing locations, these and other filmmakers have proven that it is possible to make 90 minutes worth of quality cinema for fifty thousand dollars. By eschewing investment from studios or state funding bodies, filmmakers can explore less mainstream forms of narrative, a sensibility each of these case studies has in common. Slacker, for example, features no central character, no central story, no stunts, no stars, and no nudity. It consists of random people walking and talking. And while it is now recognised by the US Library of Congress as a landmark piece of cinema (National Film Registry 2016), it is hard to imagine a studio investing in it.

Clerks is similarly low-concept. It features two disenfranchised convenience store workers who sit around and talk about *Star Wars* while amusingly profane drug dealers harass customers outside. Of my three primary case studies, only *Pi* could conceivably work as a studio pitch – a mathematician walks the line between genius and insanity, as nefarious figures chase him through New York's dark alleys. Yet while such a paranoid thriller is archetypal studio fare, its execution has the sheen of a World War II newsreel, shot on high-contrast 16 mm black-and-white reversal film.

Based on these examples, it would seem that highly inventive, original, risk-taking filmmaking is anathema to large budgets. Conversely, a small budget can produce works that would never be produced by a studio, resulting in such artistry as *Eraserhead* (1979), David Lynch's surreal fever dream of a debut. Independence from a funding system means you are forced to make a film on a smaller budget. But it can also mean

you are free to make what you like. Bordwell and Thomson (2006, p. 31) describe this trade-off between budget and subject matter:

Independent production can treat subjects that large scale studio production ignores. No studio would have supported Jim Jarmusch's *Stranger than Paradise* or Kevin Smith's *Clerks*. Because the independent film does not need as large an audience to repay its costs, it can be more personal and controversial. And the production process, no matter how low budget, still relies on the basic roles and phases established in the studio system.

Breathless

In addition to my three primary case studies, *Clerks*, *Pi* and *Slacker*, I have selected two specific pragmatic techniques to touch on, which emerged from the French and Romanian New Waves, focusing on two films synonymous with their usage. I look at the jump cuts in *Breathless* (Godard 1960) and the long takes in *4 Months*, *3 Weeks and 2 Days* (Mungiu 2007). Both films were made on low budgets, although not low enough to be considered "microbudget" by the definition of this exegesis.

Director Francois Truffaut was originally a critic for the film magazine *Cahairs du Cinema*. In his piece *A Certain Tendency of the French Cinema* (1954) he articulated what he saw as the problems with French cinema at the time. He felt that French filmmakers were attempting to emulate American cinema, to neatly wrap up the narrative, and provide entertainment for the masses rather than create works of art. "With the advent of talkies, the French cinema was a frank plagiarism of the American cinema" (Truffaut 1954, p. 1). His proclamations were to form the basis of the French New Wave, which was seen as a resistance against commercial filmmaking, and an attempt to prioritise artistry by embracing nuance, imperfection, and ambiguity, and to use new technology, and new techniques, with less structured storytelling. Truffaut wrote that "this school which aspires to realism destroys it at the moment of finally grabbing it, so careful is the school to lock these beings in a closed world, barricaded by formulas, plays on words, maxims, instead of letting us see them for ourselves, with our own eyes" (1954, p. 7). The repercussions of this new approach to filmmaking are still felt today, especially in the American independent cinema, where lower budgets allow

filmmakers to take greater risks by exploring less mainstream forms of storytelling. The Auteur Theory, which emerged from the critics-turned-filmmakers of the French New Wave, places the director as the principal creative force of the film – the "author". Reacting against the affectations of French cinema in the 50s and 60s, the New Wave was a search for truth, and Director Jean Luc Godard believed he could find this through improvisation (Brody 2008). Director Wim Wenders' term the "B-Film" depicts the quintessential French New Wave traits:

[The B-Film] has the following characteristics: black-and-white; low budget; unscripted; never knowing in advance how the film will end; a loose structure; shooting in chronological sequence, beginning from an initial situation that is usually the only known point in the film; a production process characterized by openness; the actors play themselves; the film develops like a daydream and is allowed to follow its own drifting, meandering course in search of its story (Wenders, cited in Raskin 1999).

The French New Wave filmmakers' impact is still felt today in their reassessment of editing practice. Classical continuity editing demands that edits be seamless – unnoticed by the viewer, disguised by precise timing and camera positioning. The jump cut, however, "assaults basic principles of continuity editing, confuses us about the placement of figures, and violates continuity of duration" (Bordwell 1984, p. 5) and has "influenced everything from MTV to *The Fast and the Furious*" (Galloway 2016). It disrupts the suspension of disbelief, drawing attention to the craft of filmmaking itself. This parallels Bertolt Brecht's "epic theatre", in which he drew attention to the theatre's artifice by "break[ing] dramatic continuity ... having the character address the audience, go into a song, step out of the role and out of the narrative movement" (Kolker 2009, p. 144). Godard himself explained the jump cut's genesis:

I remember very clearly – how I invented this famous way of cutting, that is now used in commercials: we took all the shots and systematically cut out whatever could be cut, while trying to maintain some rhythm (Godard, cited in Raskin 1998).

In *Jump cuts and blind spots* (1984) David Bordwell provides a history of the jump cut, from its origins in the earliest films of Georges Méliès, through to Soviet montage of the 20s, then to the most famous example in Godard's *Breathless*. While his account

explores the perspectives of both audiences and critics, he never questions the filmmakers' motivations. Only the finished product is taken into account. Five explanations for the jump cuts in Godard's Breathless (Raskin 1998), however, studies the reasons the jump cuts were first introduced. The original edit came in at 150 minutes, but the producer wanted a running time of 90 minutes. Believing that the removal of complete scenes would hinder the story, he removed frames within a shot, ignoring the rules of classical continuity editing, causing a jolt in the viewer's perception. The jump cuts in *Breathless*, which inspired countless imitations and expanded the editor's toolkit, were born through pragmatism – a combination of necessity and innovation. While critics may breathlessly espouse the depth of Godard's work, his pragmatism can best be described in his own words. When *The Guardian* asked about the significance of the llama and the donkey in Film Socialisme (2010), he replied, "The truth is that they were in the field next to the petrol station in Switzerland where we shot the sequence. Voilà. No mystery. I use what I find." (Gibbons 2011) In using what was there, Godard proved that he is not only a pragmatist, but also a bricoleur.

4 Months, 3 Weeks and 2 Days

Without historical renown as a filmmaking powerhouse, the new millennium brought a previously unseen celebration of the films from a former dictatorship in Eastern Europe – a "wave of young Romanian directors winning important international prizes year after year ... an unparalleled phenomenon in the history of Romanian cinema" (Ieta 2010, p. 23). When the Romanian film 4 Months, 3 Weeks and 2 Days won the Palme d'Or at Cannes in 2007, the world took notice. In The New Romanian Cinema: A Realism of Impressions (2010, p. 23), Rodica Ieta defines the contemporary Romanian cinema as having a "focus on reality (that of the communist past markedly haunting the present, as well as the current state of social problems without solutions)." Drawing upon inspiration from "kino-eye, Italian Neorealism, the French New Wave, magic realism and, perhaps most importantly, socialist realism" (Ieta 2010, p. 23), the Romanian New Wave filmmakers ultimately created a unique aesthetic, providing an insight into a world scarcely seen by Western audiences, satisfying an intrigue into life behind the Iron Curtain that had manifested during the Cold War.

To be considered a new wave, the Romanian films needed an aesthetic commonality. Thematically they were attempting to make sense of the transition from Communism to Capitalism, coming to terms with years of repression at the hands of a ruthless dictator. Stylistically, they all shared a love for sustained long shots, which "allow you to explore the image rather than try to catch hold of it" (Dargis 2008). Pragmatically, they were forced to do their best on low budgets. A lack of funds often prevents filmmakers from shooting a scene from various angles due to time restraints. In the case of 4 Months, 3 Weeks and 2 Days, entire scenes are comprised of a single master shot, a technique used in other Romanian New Wave films including the similarly lauded *The Death of Mr* Lazarescu (2005). The Romanians embraced this pragmatic aesthetic, and the world's critics embraced them in return. Dominique Nasta's Contemporary Romanian Cinema: A History of an Unexpected Miracle (2013) outlines this aesthetic approach, explaining that it was not stylistic preference dictating coverage, but rather the lack of budgets forcing the filmmakers to shoot in this way. An absence of edits in a scene has a knockon effect – it forces the filmmakers to emphasise performance on the day of shooting, knowing that nothing can be altered during the edit. This approach is used in 4 *Months*, 3 Weeks and 2 Days throughout the film, with several individual shots lasting around ten minutes, in which "the camera doesn't follow the action, it expresses consciousness itself' (Dargis 2008).

On *Pop-Up* I used long takes in several scenes. The longest lasted two minutes, was filmed in Romania, and featured a four-person dinner conversation about gender roles in modern relationships.



Figure 19: (From left) Clara Voda, Evan Olman, Maria Ploae and Laura Vasiliu in a long take in Pop-Up.

Faced with insufficient time to shoot such a long and dialogue-heavy scene from multiple angles, I concluded that using a single master shot would be sufficient. The scene was a success dramatically and aesthetically, and has demonstrated that with good dialogue and performances, a scene can remain compelling when reduced to a single angle. The scene was also a conscious decision to pay homage to Romanian cinema itself. In this regard, it was not only pragmatic, but utilised bricolage, by co-opting a technique employed by another culture.

Slacker

Richard Linklater's *Slacker* was conceived as a careful use of available resources. With its limited budget in mind, the film's entire structure was based around both pragmatism and bricolage. Roger Ebert (1991) describes the film:

Surrealist directors such as Luis Bunuel, in movies like *The Phantom of Liberty*, would follow one story for a scene or so, and then – when the characters bumped into another group of people – spin off and follow them for a while, and so on until the end of the movie. Linklater does the same thing at a speeded-up pace that allows him to carom through the slacker community of Austin, Texas, like a cue ball with a camera.

The film follows one character for a few minutes, then follows another person in the scene, who then connects with another, the camera tracing a path through a mixed bag of students, misfits and conspiracy theorists. As Linklater himself explained:

I thought, rather than get a bunch of actors to work for a month, I'll get a bunch of actors to work for one day. I was like, "We could probably pull that off" (Linklater, cited in Raftery 2006).

Linklater was unable to make a film in the traditional way, in which a cast and crew commit to a month or more of continuous shooting. His limited budget, and knowledge that no one would commit to an entire month of straight shooting, forced him to become a bricoleur, and create a screenplay with this caveat in mind. The entire structure of the film was based around actors' limited availability. The resulting film "embodied a

narrative of independent filmmaking as eclectic creative act, performed on a small budget and outside of studio oversight, that nonetheless finds mainstream distribution" (Johnson 2012, p. 19).



Figure 20: Richard Linklater (left) directs Slacker (1990). (Renee, 2013)

It had "no plot, no major characters, no suspense: just fleeting glimpses of bohemia in its twilight phase" (Walters 2004). The film is an ambling existential meditation, where each character is searching for meaning, but none really seem to do anything but talk about it. It ran in a small cinema in Austin, Texas, for months before Orion Pictures acquired it for distribution. Such was its strangeness that it was rejected from Telluride, New York and Toronto film festivals, before finally securing a spot at Sundance in 1991. Its budget was \$23,000, and is now "remembered ... for its role as harbinger of the independent-film movement" (Rosenbaum 2004).

Bricolage was also embraced during the writing stage, where Linklater sculpted parts based on available actors. A casting call for a Hollywood production seeking a 20-year-old male would typically involve an agent seeing a slew of 20-year-old males, all reading the same lines, until the perfect actor is found. In the case of *Slacker*, Linklater had written the part of a conspiracy theorist for a young man, but upon auditioning an older gentleman, decided to rewrite the script accordingly (Lebkowsky n.d.). He

explains the way pragmatism was incorporated into the creative process from its earliest point of conception:

The original idea was the form of it. It wouldn't be a traditional narrative. It was a really early idea. I thought about it 5 years before I made the film. It was one of those radical ideas you have when you just get into something, when you're trying to break out of what everything had come before. So I was just, why couldn't you just make a film where it goes from just character to character, and that could be a whole film. I was watching a lot of experimental films at the time ... So it started there, but it took all those years of thinking how that might work to make that work ... The formal aspects of the film, the cinematic qualities, that was my initial impulse ... What happens in each scene came down to probably my budget limitations. Making it in my own neighbourhood here in Austin. It was the kind of film I could make at that time, with no money ... The poverty of the film itself, kind of reflects – is intertwined with the subject matter (Linklater cited in Smith 2012).

Had Linklater been able to afford to pay actors for a standard period of commitment, he may never have considered creating a film with such an unorthodox structure. The film in its final form owes its very existence to an absence of funds, and the presence of a filmmaker determined to make a film regardless. The result is a compelling chronicle of early 90s Austin, which is not diminished by its absence of plot, but instead strengthened by it. Linklater's production approach was perfectly adapted to his subject matter, and vice versa. To convey the musings of such a large ensemble of characters, he needed to incorporate his shooting approach into his writing – to become a pragmatist, and a bricoleur. In an *Austin Chronicle* article, writer Marc Savlov directly compared Godard's iconic French New Wave film with *Slacker*, declaring it "American independent filmmaking's closest, truest artistic parallel to Godard's equally untraditional and cinematically electrifying *Breathless*" (Savlov 2011). In his interview with Evan Smith, Linklater declared the films of the French New Wave to be one of his direct influences:

Slacker was a lot like a lot of the films I had liked in that someone had just stayed in their own neighbourhood and made a film. So even if it's not Hollywood slick, it was telling a story that was at least interesting on a cultural, anthropological level. It's real. It was someone's backyard. I call it a backyard movie ... I think it inspired subsequent

filmmakers to [say] Oh I can just take a camera and make a film with my friends ...

Very much on the cheap. And that price has only gone down with digital. It's even cheaper. It's a great time to be a filmmaker, because you can own everything. Back then there weren't that many films made. It was like a big deal. When we were shooting *Slacker* in the summer of '89, we were the only film ... I have a lot of friends making films for five, ten [thousand dollars]. You can do it. You know, you can make a film for five hundred ... But here's another thing that changed ... That's no longer a story (Linklater, cited in Smith 2012).

Linklater describes how his film was released on the same day as *Terminator 2* (1991), and the distributor's marketing strategy involved comparing the budgets of the two films, calculating that *Slacker* could have been made four thousand times for the price of making James Cameron's blockbuster sequel. The film's low budget was a selling point. He goes on to describe that a film's budget is no longer considered a marketable asset. "You don't hear about that any more. No-one cares how cheaply you made a movie. It's not sexy any more" (Linklater, cited in Smith 2012). Linklater hoped his microbudget movie might at least prove appealing to his local audience:

I think the film just might exist in that underground/anti world and respectable critical circles at the same time. And in the year of the 50 million dollar budgets, I can already feel people going out of their way to support this \$23,000, out-of-left-field, genre and plot defying, first time film [that in reality wants to be liked] (Linklater, cited in Savlov 2011).

Linklater knew his market appeal to both the antiestablishment college students, and critics alike. He was aware that part of *Slacker*'s charm lay in its perception as an anti-blockbuster. Having now joined the ranks of Academy Award nominees – he was nominated for *Before Sunset* (2004), *Before Midnight* (2013), and *Boyhood* (2014) – Richard Linklater's trajectory demonstrates that a lack of funds need not hinder the path to a successful filmmaking career.

Clerks

Clerks (1994) by writer/director Kevin Smith exemplifies both bricolage and pragmatism. Since Smith worked at the Quick Stop convenience store in New Jersey in

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which he was given permission to film, he constructed a narrative around this setting.

His first key decision on Clerks was informed by bricolage and pragmatism. Instead of

writing, for example, a science fiction film, then spending years raising money for props

and special effects, Smith made the film using what was at his disposal. Pragmatism

was not only used to solve on-set problems, but was incorporated at the scripting stage.

An example of Smith's problem solving is in his avoidance of a significant continuity

error. The film was set during the daytime spanning a single day; as noted earlier this

was inspired by Spike Lee's Do the Right Thing (1989). The convenience store itself

was open for business during the daylight hours, so Smith and his crew were only able

to film there at night, when the store was closed. Without money for large lighting rigs,

Smith was forced to be creative. During the scripting stage, he wrote his solution

directly onto the page, as can be seen in this script excerpt:

EXT: CONVENIENCE STORE. MORNING

DANTE tries to jam the key into the window shutter lock. He

looks down at it.

DANTE

Shit!

The lock is gummed up with gum or something hard and

obtrusive like gum, preventing the key from being inserted.

DANTE looks around and kicks the shutter angrily. The car

trunk pops open and a hand reaches inside, pulling out a

folded white sheet.

INT: CONVENIENCE STORE. MORNING

A can of shoe polish is grabbed from the shelf. DANTE dips

his fingers into the shoe polish and writes large letters on

the unfurled sheet, leaning on the cooler.

EXT: CONVENIENCE STORE, MORNING

DANTE stands on a garbage can and tucks a corner of the

sheet under the awning. He jumps down. The banner reads I

ASSURE YOU, WE'RE OPEN. The door sign shifts from CLOSED to

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OPEN. (Smith 2006)

The sign reading "I ASSURE YOU WE'RE OPEN!" became the catalyst for an ongoing joke, in which customers kept asking whether they were indeed open, and why the place smelled of shoe polish, much to Dante's chagrin. Smith's solution wasn't merely a compromise, but added to the film. By building his compromise directly into the screenplay before a single shot had been filmed, it was absorbed directly into the narrative, rather than feeling like an afterthought. Smith had found a synthesis of pragmatism and artistry, as he noted during his own podcast:

I wasn't a film maker. I didn't know how to make films. I just ... wrote about the things that made me laugh and the things I liked ... and set it in familiar places that I knew (Smith 2014).

Clerks is a successful film due to its witty dialogue and memorable characters, and its low-budget aesthetic adds a level of charm. By eschewing high production values, it draws attention to its strengths – witty banter, relatable characters, and offbeat storytelling. And the subsequent adoration of its fans launched the career of a wisecracking fat guy with a baseball cap and trench coat.

In *The Making of Clerks* (Benson 2004), Smith relates an interview he read with Robert Rodriguez in which he outlined his process of making *El Mariachi*:

I read an interview with Robert where he was like, the best way to go about making your first film is to take stock of what you have. In his interview he was like, I knew I had access to a bus, I knew I had access to a guitar, and I had a turtle, so I was like, right away, I knew I was putting those things in my movie. So I was like, well I've got access to a convenience store. And I know that world, 'cause that's all I'd ever really done. So I said I'm going to use the convenience store as the backdrop to a movie about people sitting around and talking (Smith, cited in Benson 2004).

Smith goes on to explain that his greatest influence was *Slacker*, by Richard Linklater. The film had been shot on location in Austin, Texas, and was playing at his local cinema, the Angelika. Having originated somewhere other than LA or New York, the

film's screening made film production seem achievable to him in New Jersey (Benson 2004).

Smith was a bricoleur in his use of conversation. He and his friends would spend hours talking about *Star Wars*, *Jaws*, and their own sexual exploits, attempting to amuse each other. He figured that if his friends enjoyed having those conversations, then it's likely others of his generation would also discuss such topics, and that hearing such conversations in a film might be appealing. His hunch was prescient, and upon the film being accepted into Sundance, it was acquired by Miramax, and released internationally in theatres and on home media, spawning two sequels, a comic book, an animated TV series, and a sitcom pilot. Smith has since written and directed twelve feature films, and held sold-out speaking tours around the world.

Clerks is a lucid synthesis of pragmatism and bricolage. Shooting in black and white was pragmatic, negating the need to colour balance their night-for-day shoot, which would have required a higher level of technical expertise. Subsequently, the use of black and white in such a crude comedy was "challenging people's expectations of what an art film could be" (Tobias 2008a). They were also pragmatic in limiting the scope of the production to their local region. By writing their available elements into the script – a convenience store, witty pop culture conversations, and a New Jersey setting – they not only saved money, but lent authenticity to the work, making it ring true to a generation of young filmgoers.

Рi

Working with no budget allows filmmakers to do whatever they want: Kevin Smith (*Clerks*) can be as crude as he likes ... and Aronofsky can push his madhouse-of-themind aesthetic to punishing extremes. When you're making movies for nothing and for nobody, the only audience you really have to please is yourself. Though Aronofsky would be given larger budgets later for *Requiem for A Dream* and *The Fountain*, the remarkable thing about *Pi* is that his go-for-broke personal style was evident right out of the gate and nothing has changed much since (Tobias S 2008b).

Darren Aronofsky took two-and-a-half years to make Pi on a budget of \$60,000. It went on to win the top award at Sundance, secure a worldwide distribution deal, and launch his career. It's a psychological thriller about a disturbed mathematical genius who believes he has unlocked the mysteries of the number pi, which allows him to predict the stock market. As a result, various shadowy organisations and individuals want his mind for their nefarious purposes. He replaced "stunts with ideas, action sequences with imagistic montages, and special effects with an eerie reimagining of New York City" and demonstrated that "no-budget filmmaking can be both intellectually provocative and entertaining" (Macaulay 1998). Pi's unorthodox style sets it apart from other microbudget films. It lacks the ribald wit of Clerks, and the structural daring of Slacker, but its inventive use of sound and editing is uniquely cinematic.

The film is designed to be immersive, in which the viewer experiences several days in the life of the tortured Max. While *Clerks* was filmed in standard black-and-white negative film, *Pi* used reversal film, in which the in-camera stock becomes positive after development, a time- and money-saver in the newsreel era. Reversal's convenience comes at the expense of tonal range, however, producing an image of extreme contrast, which Aronofsky exploited to stark, nightmarish effect. *Pi*'s juxtaposition of 1940s-era film stock with an industrial electronic score and zealous visuals was idiosyncratic and hypnotic, and the resulting film "made up for [its] budgetary limitation through aggressive editing and sound" (Murray, Rabin & Tobias 2014). As Tobias elaborated, he compensated for the lack of budget by employing numerous stylistic techniques, ultimately overcoming his budgetary shortcomings by sheer force of imagination:

For *Pi*, Aronofsky pulls out every cinematic device from his bag of tricks: Aggressive handheld camerawork that darts chaotically around the city and Max's apartment; a propulsive drum-and-bass score, courtesy of Clint Mansell; abrasive screeching noises on the soundtrack; the use of rapid-fire montage to show repeated patterns of behavior, like Max's drug regimen (a tic Aronofsky would employ more rigorously in *Requiem*); and lots of jump cuts, extreme close-ups, dream sequences, and geometric diagrams (Tobias 2008b).

Darren Aronofsky believes in making films his own way:

"if you go out, you do what you want to do, if you're not a copycat and you just do it, you'll get recognized. That's the only way to do it well." (Aronofsky, cited in Kaufman 1998).

For *Pi*, "a prime example of innovation on a low budget" (Murray, Rabin & Tobias 2014), Aronofsky employed bricolage in his approach to art direction. Like a sculptor who works with found objects, he accumulated discarded materials to build his sets. The script described the den of an unhinged mathematician – a tangled lair of mainframes and cables, closely aligned with the chaos of the protagonist's mind. With no money for an art department, he located businesses that were upgrading their computer systems. As he noted in his production diary:

We've spent the last months collecting old computer junk and storing it in [lead actor] Sean's apartment on the Bowery. Yesterday I recycled twenty monitors and seven modems from the trash outside a cop station (Aronofsky 1998, p. 15).

He also used bricolage in the writing process. In Aronofsky's *Pi: The Guerilla Diaries* (1998), the director articulates the challenges inherent in the production of an ultra-low budget feature film. He writes of his life in a derelict apartment in New York's Hell's Kitchen, where rats scurry through cracked doorways, and addicts score their next hit by his apartment block. Using his surroundings as inspiration, he paints a picture of his protagonist's damaged psyche, and the harsh urban conditions he endures. To "write what you know" is a common writing mantra. But for ultra-low budget filmmakers, "use your surroundings" is also apt advice. By filming in his own neighbourhood, Aronofsky could depict a lurid life in the shadows, and still feed his crew from his kitchen. His use of bricolage is articulated when noting, "I just sort of take all these different pieces of experiences that I have had and stories that I've heard and sort of try and mix them together and create an image out of all the different of ideas" (Aronofsky, cited in Kohn 1998).

Despite the cinematic backdrop, Aronofsky was forced to make compromises on a daily basis. Actors dropped out, his director of photography quit days before principal photography, and his corporate video work was eating into his schedule (Aronofsky 1998). Yet he remained focused and determined. His *Pi* diary also demonstrates the

need for grit – a fearless determination to persevere when times are tough, confronting obstacles and the possibility of failure, and continuing regardless. Aronofsky said, "working on Pi, that's what I did for about two and a half years. 24-7, 365 days a year" (Aronofsky, cited in Kohn 1998). Persistence is clearly a trait shared by Aronofsky, Linklater and Smith. As I will outline in the next chapter, it is this trait that has allowed me to complete Pop-Up, and subsequently achieve success in Hollywood.

PROFESSIONAL BACKGROUND

Early Years

A description of my creative and professional background provides a context for my approach on the production of *Pop-Up*, and my level of tacit knowledge, so I have briefly summarised key milestones in my journey as a filmmaker.

At age 11, I made my first movies. My mother worked at the local university, QUT, in the resource centre of the Carseldine campus, Brisbane. Students of the 1980s didn't carry 4K motion picture cameras in their pockets, so if they wanted to make a video, they required a Portapack – a VCR with a shoulder strap, attached to a camera. My first movies were made on such a device. These early experiments were barely scripted; the camera was a toy. With school friends and siblings as stars, my first videos were music clips, TV commercials, short films, homages to movies, and sporting instructional videos. At age 14, I began to employ more formal structures. My Year 10 science assignment was to deliver a presentation on the environment – a speech with an accompanying handmade poster. Having been granted permission to submit my assignment on video, I created *Going Green* (1989), a short film which was part environmental documentary, part slasher movie. It featured an environmental vigilante stalking suburban Aspley, lecturing environmental saboteurs. When his subjects refused to accommodate his suggestions, he would kill them.



Figure 23: Sequence from *Going Green* (1989) demonstrating early use of montage as a 14-year-old filmmaker.

For the next three years, access to the QUT post-production suite allowed me to learn the craft of editing, despite a lack of facilities at my high school. *Going Green* was to be the first of numerous short films I'd write and direct over the next 15 years, including several made as an undergraduate at Griffith University's Queensland College of Art (QCA).

Professional Filmmaking

After completing film school, my professional career began when I moved to London, where I made commercials for UK cable network Live TV. After 18 months overseas, I returned to Australia, and secured a job in Brisbane as the in-house camera operator for Video Image Productions, making low-grade commercials and corporate videos. Upon being made redundant after a corporate take-over, I was forced to earn money by delivering pizzas. With big ambitions but few opportunities, I channelled this frustration into a feature-length screenplay, *Spudmonkey*. With the help of Brisbane-based producer Jon Silver, I made the film as my honours project at Griffith University, at age 25. It then took a further eight years for the film to receive a formal release – a two-week theatrical run at the Blue Room Cinebar, Rosalie.

At age 29, I secured my first full-time directing position – making TV commercials for regional television network Southern Cross Ten in Bundaberg, Queensland, population 50,000. The average budget of a 30-second TV commercial there was \$300. By the end

of my six-year stint working in regional television, I was directing ads for national clients such as McDonald's, Honda and Sony, with budgets of up to \$50,000. Realising the potential for earning, I left regional television to form my own production company in 2011. The decision proved to be prescient, as the income enabled me to fund my next feature film, *Pop-Up*.

CREATIVE WORK - "POP-UP"

On a \$200M science-fiction epic, entire worlds are created from scratch, be they underwater, interstellar, or in the centre of Earth itself, through custom-built sets, props, and computer generated imagery. But on a film whose budget equals a blockbuster's coffee expenditure, the entire art department might be a part-time retail worker with a crate of cardboard and a box of broken toasters. Without money to build anything from scratch, the filmmaker must scan their surroundings for cinematic locations and props, and write them into the script. Bricolage in filmmaking is about making a small movie seem bigger, by using the materials at your disposal. My hypothesis is that an ultra-low budget feature filmmaker must become a pragmatic bricoleur. To support this claim, I am analysing my own experience making the feature film *Pop-Up* through a hermeneutic phenomenological perspective, as outlined by Margaretha M. Wilcke (2002, p. 2):

The goal is to study experience as it occurs in consciousness, in an attempt to glimpse the phenomenon in its immediacy as it is experienced, before the phenomenon has been overlaid with explanations as to causes or origins.

The remainder of this exegesis studies the experience of making my creative work, *Pop-Up*, through a hermeneutic phenomenological lens – examining my moment-by-moment decision making during the writing, shooting, and post-production, in an attempt to elucidate the microbudget filmmaking phenomenon in which I engaged.

In 2013 I commenced full-time work on *Pop-Up*. I had decided to fund it myself, rather than apply for funding through Screen NSW, Screen Australia, or any feature film production companies. To pull off a task for \$50K that would usually require millions

of dollars, I would need to design the project with a low budget in mind from the beginning. The following chapters reveal this process in depth.

Pragmatism and Bricolage in Practice

Living in Newcastle, one of Australia's major surfing destinations, allowed me access to numerous pristine beaches. I incorporated several beach scenes into the script, which required no financial expenditure, but which added significant production value.



Figure 24: Scene from *Pop-Up* at Newcastle Beach – a location written into the script.

As a former coal town, it retains remnants of its abandoned mining infrastructure. One example is the Fernleigh Tunnel – a dark, ominous underpass now frequented by cyclists and wedding photographers. This was incorporated into a tense confrontational scene. Again, it did not require a monetary outlay to create. I simply adjusted the script to justify its presence.



Figure 25: Fernleigh Tunnel was written into a scene due to its ominous aesthetics.

Even light itself can be bricolage. Upon noticing the way an oversized window lit Tuff'n Up Boxing Gym's unpretentious interior, I decided to shoot a crucial scene there, and to accommodate this location by transforming a character into an aspiring kickboxer.



Figure 26: The character of "Sam" was converted into an aspiring kickboxer to make use of Tuff'n Up Boxing Gym.

This latter point, adaptation, is crucial. Had I dismissed the gym as inappropriate due to the script's lack of a boxing scene, the film would not only have lower production values, but also a less-developed character. By fusing the writing with the location scouting, I was able to enrich the story, and add a level of spectacle sometimes lacking in ultra-low budget films. Bricolage is more than decorating dialogue with pleasant

scenery; it is about forming connections between locations, characters, and story, and making script adjustments accordingly. The aim is for the audience to be incapable of imagining the scene taking place elsewhere.



Figure 27: Still from the kickboxing scene in *Pop-Up* in which Sam is kicked to the ground.

In addition to bricolage, *Pop-Up*'s scripting stage also required pragmatism. My script originally featured a wedding reception, at which the groom, Richie, impresses his bride by reciting a speech in her mother tongue, Russian:

47. INT. WEDDING RECEPTION. NIGHT

Richie is making a speech before an assembled crowd of family and friends.

He speaks in Russian, and refers to his notes (written on an iPad) when needed.

Ludmila sits next to him, wiping back tears of joy.

Rada looks on from the audience, proud and happy.

Without a significant budget, a wedding would have presented an impractical logistic challenge. So I reassessed the script to identify the scene's essence. After prolonged scrutiny, I concluded it was about Richie's eagerness to demonstrate his dedication. I found a way to convey this on a smaller budget. Firstly, I changed the language to Romanian, as I had contacts in Romania with whom I could collaborate. This also meant changing several characters to now be Romanians. And secondly, instead of revealing his Romanian prowess at the wedding reception, he would *propose* to her in her mother tongue. This reduced the number of extras required from a hundred down to

just two. The sequence would also be more dramatic, as the possibility of rejection would add tension to the scene.



Figure 28: *Pop-Up*'s wedding scene was converted into a proposal scene to reduce complexity and increase intimacy.

This proposal sequence is also an example of bricolage. While reduced in scope from an ostentatious wedding scene, production values were added by shooting the two-person lead-up sequence – in which Rada helps Richie to learn his lines – in the mountains of Transylvania.



Figure 29: The scenes in Transylvania were written in the knowledge of a production company connection.

While a location shoot in a remote region of Romania may sound counterintuitive on an ultra-low budget Australian film, the element at my disposal in this case was a friend who ran a production company in Sebes, Transylvania. Having made this connection almost a decade ago, I could trust the shoot to proceed at the highest professional level, while keeping my costs to a minimum.

French poet Voltaire wrote that "perfect is the enemy of good" (Rasmussen 2014, p. 210), which is similar to Herb Simon's concept of satisfycing. True to Voltaire's and Simon's words, the proposal scene was indeed satisfactory. And as I have learnt by reducing numerous scenes to their essence, the process of reduction is in itself a valuable exercise. It clarifies the story, the characters' motivations, and the themes. Upon completing the film, I consider the resulting proposal sequence to be a highlight. Had I shot the original version, featuring a wedding party, it may have been more of a spectacle, but it may also have been less emotionally resonant.

Pragmatism is about making the film smaller, but not too much, or the film becomes bland. Bricolage is about making the film bigger, but not too much, or it becomes cluttered. The best results are achieved by oscillating between the two to strike a satisfactory balance. The challenge is to incorporate constraints into the film before a single shot has been filmed, such as Kevin Smith's seamless incorporation of his "I ASSURE YOU WE'RE OPEN" sign into *Clerks*. They can then become infused into the structure of the film, and their presence will be accepted as a natural narrative element.

Writing

The following examination of "Pop-Up" contains numerous excerpts from a journal I kept throughout the production process. They have been edited for clarity, but their conversational parlance remains unaltered. Journal entries are italicized and indented for differentiation.

In discussing the *Before* trilogy, lead actor Ethan Hawke relayed a conversation with writer/director Richard Linklater. He'd mentioned how little his life resembled that of a Hollywood action film, yet noted it was still filled with drama.

I've never been in a helicopter crash. I've never been involved in espionage. I've never been in any gun play whatsoever. But my life has been really dramatic ... The most interesting thing that ever happened to me, really, is that feeling when you connect with another human being ... And I want to make a movie about that, and that only (Hawke 2013).

Like Richard Linklater, I have never been in an aircraft crash, shot anyone, been shot, nor spied on a Russian crime syndicate. But I have lived, loved, and lost, and these experiences have all infused my writing. Whether consciously or subconsciously, the characters and events in my writing are the confluence of years of interactions with the world around me. And while this lived experience spans several decades, a first draft can be created in just a few days. In *Concepts in Film Theory* (1984, p. 13) J. Dudley Andrew writes that an audience oscillates between two experiences while watching a film – "that of recognising something they can identify and that of constructing something worth identifying". The challenge for the writer is to construct a story that resonates with the audience, allowing them to empathise with the protagonist/s, and participating vicariously in their experience. As a writer, I chose to identify moments of my own life that I felt an audience could identify with.

In an interview in 1995, *El Mariachi*'s director Robert Rodriguez described his writing process. His description correlates with Mihaly Csikszentmihalyi's notion of "flow", at the intersection between high difficulty and high skill. Rodriguez considered himself at the time to have a low level of writing skill, so despite his flow-like description, Csikszentmihalyi's graph would in fact have placed Rodriguez in a state of "anxiety".

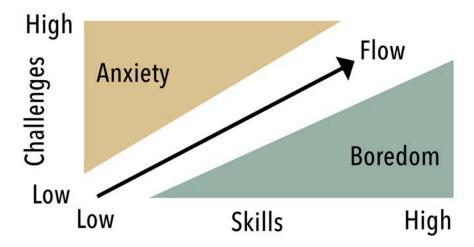


Figure 30: "Flow" spectrum chart

I tried to write very quickly. Because, one, I'm not a writer, not a very good writer – so I thought if I was to get it done, I'd have to get it done in one spurt, when you are very much involved and very embedded in the picture and not break away from it too much. Because I find that if you take too many breaks you end up never getting back any kind of groove. And I would just sit in a room and just bang it out all night and all day until my brain was fried. You stop thinking after a while and then your creativity takes over ... it's almost subliminal or something. It's very strange. The creative process is difficult to explain. It's just something that you just do without any real instruction or schooling. It's just something that's more instinctual. It's just fun to close your eyes, write it, and when you open your eyes you have something done on your desk a couple of weeks later. So it's a very involved process (*Interview with Robert Rodriguez* 1995).

In writing Pi, Aronofsky had a similar approach, in which he felt a sense of urgency helped to maintain momentum and find inspiration. He retreated to a friend's cabin in the woods for a week to commit the first draft to paper after months of brainstorming, and wrote a list of rules for his own writing. The top three were:

- 1. Always move forward. If you have a problem, type through it.
- 2. Only take a break after something good happens on the page, or you accomplish a goal. Type through it.
- 3. Ten pages a day minimum. (Aronofsky 1998, p. 10)

Similarly, Linklater claims to have written most of *Slacker* in a 24-hour period (The Film Archives 2012). Linklater, Rodriguez and Aronofsky all had the same approach,

and their careers were launched by their respective films, written in manic sessions. *Pop-Up* was also written quickly; its first draft took only four days, based on a scene breakdown I had prepared months earlier. To understand what led to those four frenetic days of writing, it is necessary to look back at the release of my first feature film, *Spudmonkey*.

The eight-year delay in *Spudmonkey*'s release had been frustrating, but its eventual screening was energizing. Once the screenings had run their course, I was determined to make a new movie quickly. Before I even had a story, I planned the next project as a microbudget enterprise, as this allowed me to commence immediately, without waiting for a gatekeeper's approval. With this caveat in mind from the beginning, I began curating ideas.

Spudmonkey received a rating of 2-out-of-5 from the Courier Mail in Brisbane, and I was indignant. Of the three interweaving narratives in *Pop-Up*, the story of the aspiring playwright was the first I committed to laptop. Angered by the critic's dismissal of my movie, I found myself harbouring revenge fantasies. Clearly unwise to act upon in real life, I realised that such a craving for retribution could provide the catalyst for a character's journey. This eventually resulted in the story of disparaged playwright Neil. I felt, however, that I could only extract 30 minutes' worth of material from this idea, meaning I required an additional 60 minutes' worth of story for a feature-length screenplay. I admired the triptych structure of Mexican film Amores Perros (Iñárritu 2000), in which one event is seen from three different perspectives, and I concluded such a structure would suit a 30-minute story such as Neil's. This non-linearity exemplifies the Russian formalists' concepts of "fabula, the story's state of affairs and events, and *syuzhet*, the arrangement of them in the narrative as we have it" (Bordwell 2012, p. 98). The on-screen order of the events in *Pop-Up* shifts back and forth between time (jumping a year or so between Rada's life in Romania and in Australia) and place (between Sebes, Romania, and Newcastle, Australia), trusting that the audience has enough "fluency" in the language of cinema to follow the jumps.

Determined to produce a film quickly, I spared no time for deliberation. I settled upon the triptych structure, and sought two more stories I could shoot cheaply. Six months earlier, during a year living in Berlin, I directed a music video for Australian electronic artist Nick Skitz, for his track "I Want Your Love" (2008). I'd proposed several concepts, one involving a man finding a camera on the U-Bahn, becoming smitten with the woman's face in its photos, then attempting to track her down. My client chose a different concept, but I remained intrigued by this idea. Concluding it would not require a significant budget, I fleshed it out, and it became the story of Mick and his daughter Emily.

The third of the three stories had a confluence of inspirations. At age 17, my life was threatened thanks to a ruptured spleen; my family did not know whether I would survive. My sister, 13 at the time, was inspired by the book *Sadako and the Thousand Paper Cranes* (Coerr & Himler 1977) to fold paper cranes for me as a gesture of hope and support. As a child, I'd made pop-up cards for my family for every birthday, Christmas, Mother's Day or Father's Day. So in seeking a visual hook, I pictured a character making a thousand cards, à la Sadako, then hand-delivering them to everyone she knew. This could be achieved on a shoestring budget, but would still carry emotional weight, and be visually engaging. Working backwards from this image, I asked myself why someone might seek such catharsis. Knowing that my friend Edi Schneider ran a film production company in Romania, I decided the card maker could be a Romanian immigrant, whose Australian partner had left her. In modern parlance, we might say he "ghosted" her. I now had my three stories, and my structure, but I needed a device to tie them together.

In *Amores Perros*, all three stories feature the one central event, a car crash, seen from three perspectives. Krzysztof Keislowsky's *Three Colours* trilogy (1993–94), another triptych, uses a ferry accident as its uniting event. While a derailment on the Newcastle to Sydney train, or a paragliding accident at Bar Beach might be spectacular, these were not suited to a shoestring budget. I had to retain the essence of this device – something random and unexpected – but stage it in a less expensive way. I decided to concoct a more impactful version of *Notting Hill*'s (1999) inciting incident, where pedestrians Hugh Grant and Julia Roberts collide while blindly turning a corner.



Figure 33: Collision scene from *Pop-Up*, with Rada being knocked unconscious, is the pivot point for the three stories.

Though instead of spilt coffee and witty banter, my collision would result in hospitalisation. While my budgetary limitations prevented the involvement of vehicles or superstars, this moment still demanded visual engagement. It had to retain audience interest after being seen from three different perspectives. It needed a visual hook, so I turned to design. I studied minimalist movie posters, which reduce iconic films to one element, such as a box for *Seven*, and a glass of milk for *A Clockwork Orange*:





Figure 34: Minimalist movie posters

So in designing the pivotal scene, I intentionally added a visual detail that would elevate the moment into a memorable set piece. I chose a red suitcase. I felt that a stylised representation of a man running down a steep hill dragging a red suitcase would

succeed as a minimalist poster, so it passed the litmus test. And with The Reject Shop selling suitcases for \$20 each, it created visual engagement with a low price tag.

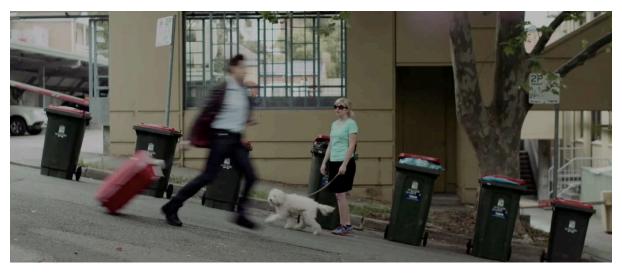


Figure 35: The resulting red suitcase scene in *Pop-Up*.

With the structure, the connecting incident, and three stories in place, I next needed to flesh out the narrative. "Instead of treating a narrative as a linear chain of events ... [I thought of it as] a point of intersection of various materials. Not a linear flow, but a collage of items brought in, trimmed, or discarded as needed" (Bordwell & Thompson 2014). After approximately one week, I'd written a scene breakdown for the whole movie, spent a few months tinkering, then turned this breakdown into a screenplay draft in four intensive days of writing.

Thematically, I wanted to show that these seemingly disparate characters were all sharing the experience of being human. So in addition to the collision scene being their primary link, I also wrote the following connections into the script:

• They each cross paths awkwardly with The Strange Man, who later turns out to be Wesley, the theatre critic.



Figure 36: Still from Pop-Up. Rada crosses path with Wesley.



Figure 37: Still from *Pop-Up*. Mick crosses path with Wesley.



Figure 38: Still from *Pop-Up*. Neil crosses path with Wesley.

• Each of them has a mark on their skin at one point: Rada's birthmark, Neil's bluebottle sting, Mick's pen mark.



Figure 39: Still from Pop-Up. Neil's skin marking.



Figure 40: Still from *Pop-Up*. Mick's skin marking.



Figure 40: Still from *Pop-Up*. Rada's skin marking.

• Each of them is seen alone at one point staring at a laptop screen.



Figure 41: Still from *Pop-Up*. Rada is alone with a laptop.



Figure 42: Still from *Pop-Up*. Mick is alone with a laptop.



Figure 43: Still from *Pop-Up*. Neil is alone with a laptop.

• Each of them goes to the beach to clear their head. This works for Mick and Rada, but Neil's attempt at relaxation is thwarted by a bluebottle sting.

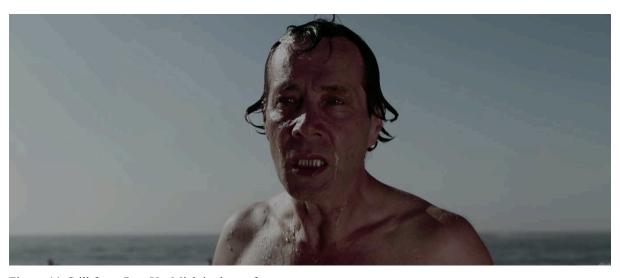


Figure 44: Still from *Pop-Up*. Mick in the surf.



Figure 45: Still from Pop-Up. Rada in the surf.



Figure 46: Still from *Pop-Up*. Neil in the ocean bath.

After completing the first draft of *Pop-Up* in 2008, I spent the next three years directing TV commercials full-time, so I lacked the energy or time to produce a movie. I tinkered with the script, auditioned actors, and scouted locations. But *Pop-Up* never became more than a Word document. In 2011, the project was shelved as I shifted focus onto a factual TV series shot in Russia and Ukraine, titled *Back in the Soviet Bloc*. This self-financed project took two years full-time, and failed to recoup its investment. Several of the personal frustrations resulting from this production provided a darker layer of inspiration for *Pop-Up*'s subsequent drafts. It was both cathartic and practical then to "write from experience", and to "try to be one of the people on whom nothing is lost" (James 1884).

Throughout the writing process, I would "pick up scraps of talk and offcuts of sensation" (Lane 2017) and take notes whenever a friend or colleague made an amusing comment. The better examples made it into the screenplay, and the best made it to the final cut of the film. Examples include:

"Mmmmm ... Minty!" – from in the film-within-a-film Bloodgate.

"Ungh mother ... nature." – Mick censoring an expletive upon remembering the child on his back.

"I never liked the name Hamish. It always seemed a bit half-arsed. Like, it's not quite Hame, it's just Hame-ish. It's like, where's your commitment?" – Sam chastising the busker named Hamish.

"I don't know, but it sure loves salami!" The Romanian joke, which Sam doesn't appreciate, but which Mick finds hilarious.

Such curation of friends' comments is an example of bricolage. In this case, it is not an accumulation of physical elements such as locations, props, or talented individuals, but of ideas. Richard Linklater spoke of a similar process for *Slacker*. The amusingly disturbing scene in which a female coffee shop customer randomly chastises a fellow customer was something that had happened to Linklater in New York:

I'm always writing little things. A lot of it happened to me, like when the lady is in the coffee shop yelling at the guy, "You should never traumatise a woman." That happened to me verbatim, in a coffee shop in New York. I didn't even have to write it down; I just remembered it. This was a kitchen sink movie, where you could throw in all kinds of stuff (Film Archives 2012).



Figure 47: Coffee shop scene in *Slacker* featuring dialogue Linklater had experienced in real life. (Slacker 1994)

Even intellectual property considerations were written into the *Pop-Up* script. The production diary references an example of pragmatism in the form of a karaoke song:

Production journal:

The urgency and the time restrictions of being on set forces every scene to be distilled down to its minimum. The karaoke scene is a great example. The script originally had a mini-montage of Sam getting progressively drunker, and singing a selection of songs. But when it came to the crunch, we had to film the entire thing in about 2 hours, so I had to just choose one song. The song I chose was "Whisky in the Jar" by Metallica, because it suited Sam's personality. Of course we didn't have \$100,000 to licence the track. But that doesn't matter, because it's actually an old Irish drinking song, with no known author, so a karaoke version is completely free. The other three tracks I'd had him singing were also public domain — "Where Did You Sleep Last Night?" by Nirvana, "La Bamba" by Los Lobos, (which we ended up using when Rada returns to the karaoke bar to look for Sam), and "House of the Rising Sun" by Muse. All of these songs are in the public domain, provided you record your own versions.

The process of writing itself follows the process of "abduction" as outlined by Charles Sanders Peirce in his discussion of pragmatism. When a crucial moment is arrived upon during the writing stage, previous plot points must move logically towards it. Much of the writing is in fact rewriting of earlier scenes, to provide set-ups that will pay off later. For example, in *Pop-Up* Rada and Mick both come across a strange man in the street,

who stares at them awkwardly. Later, the oft-mentioned critic Wesley gives Neil's play a scathing zero-star review. When the previously unseen Wesley is eventually revealed to be the Strange Man, the set-ups of Rada's and Mick's encounters are paid off. This exemplifies the logical form of abduction as outlined by Charles Sanders Peirce:

"The surprising fact, C, is observed;

"But if A were true, C would be a matter of course.

"Hence, there is reason to suspect that A is true." (Gabbay & Woods 2011, p. 228)

For the story to make sense when Wesley attempts to hang himself (C), earlier in the script we needed preceding moments (A) in which his behaviour could be seen as unbalanced. During the actual process of writing, however, plot point C (attempted suicide) was written first, necessitating the earlier scenes (A) to be written later. Due to the braided narrative of *Pop-Up*, set-ups and payoffs were incorporated into numerous junctures across the non-linear timeline. By the beginning of 2013, the script was ready for production.

Casting

Making *Pop-Up* was a challenge creatively, financially, physically, and emotionally. Fortunately, I had made mistakes during the production of *Spudmonkey*, so I was able to avoid these pitfalls during my second outing as director. One major lesson was to avoid hiring inexperienced actors, even for minor parts. *Pop-Up*'s casting process took place from 2009 to 2015; the process was painstaking, but resulted in an excellent ensemble.

There is a common misconception that a director's role on set primarily involves the elicitation of nuanced performances from actors, describing conscious and subconscious motivations for a character's behaviour. While this may indeed be the case for some directors, it is not a luxury afforded to those working on a tight schedule. In reality, an actor is expected to know their lines, rarely requiring prompts, and to deliver a believable, compelling performance. By removing the necessity to micromanage a performance, the production can stay on schedule.

In the interest of authenticity, I wanted a Romanian actress to play the lead character of Rada, a Romanian. I would later secure my first choice, only to have the Australian government deny her a visa. On the strength of the script and my body of work, and through extensive Skype meetings, auditions and talent agency negotiations, I secured a commitment from Laura Vasiliu, star of Palme d'Or winner *4 Months*, *3 Weeks and 2 Days* (2007).

Concerned about repercussions from making false immigration claims, I applied for a temporary working visa for Ms Vasiliu. Despite my film being made without state funding, the government still had veto power, and the visa application was rejected outright. Their argument was that I should use an Australian actress to play Rada, despite the character being Romanian. Realising this was a fight I could not win, I was forced to be pragmatic, to consider actresses of various nationalities, and then rewrite the script accordingly. After auditioning Australian actresses with Thai, Russian, Chinese and German backgrounds – none of whom impressed me – I was informed of an actress named Clara Voda, who had recently moved from Bucharest to Sydney on a distinguished talent visa. She auditioned via video, and was perfect.

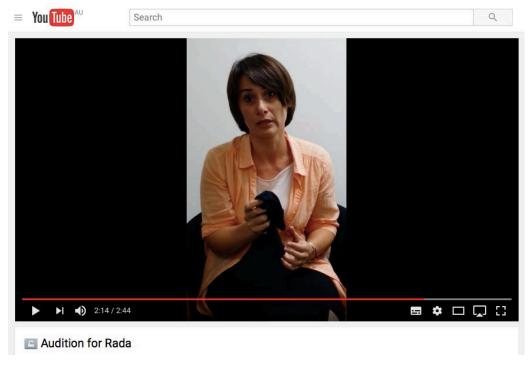


Figure 49: Clara Voda's successful audition as Rada. (C Voda 2013, pers. comm., 17 December)

I offered Ms Voda the part of Rada, and withdrew my offer to Ms Vasiliu. Serendipitously, Ms Voda was perfect as Rada, and forms a more believable couple with Eugene Gilfedder than Ms Vasiliu would have. Ms Vasiliu instead played Rada's sister Adela during the scenes shot in Romania.

In addition to Ms Voda in the lead role, the other two leads were Eugene Gilfedder as Mick, and Greg Powell as Neil. Gilfedder is renowned in Australia as a theatre actor, appearing since the 1990s in productions for the Sydney Theatre Company, the La Boîte Theatre in Brisbane, and in a variety of Melbourne productions. Greg Powell is a recognisable face from numerous appearances in Australian television commercials, for companies such as Isuzu, 7 Eleven, and BCF (Powell n.d.). He was also the lead actor in *Spudmonkey*. My commitment to hiring exemplary actors extended to the minor parts, as a sub-par actor uttering one syllable is enough to disrupt the suspension of disbelief.

Funding

A film made for \$60,000, the only way you get it done is with a tremendous amount of favors (Aronofsky, cited in Kaufman 1998).

At the 2016 South by Southwest film festival, American independent filmmaker Joe Swanberg delivered the keynote address, and declared that, "When shooting a movie, it's better to have no money, than some money" (Swanberg, cited in O'Falt 2016). He explains that when your collaborators are aware of a small budget, they will all want their share. But when everyone's aware of its no-budget approach, they will accept this fact, and continue regardless, pleased to be involved on a voluntary basis in the name of art and experience. Mr Swanberg's advice to an audience of aspiring filmmakers would not have changed my trajectory in 2013, but it may have provided peace of mind. When I decided to make a microbudget feature, I had a sense of the filmmaking community's interest in such a project, so Swanberg's quote echoes what I'd felt at the time. I knew what it was like to finish film school in my early 20s with extremely limited career prospects, eager to work for free to gain real-world experience. I sensed that with enough people who shared this outlook, and who wanted to learn from a professional filmmaker, then I would have sufficient crew for a movie.

To initiate production, I launched a crowdfunding campaign through Pozible. Due to media reports of crowdfunding success stories, including a man who jokingly aimed to raise \$10 to make a potato salad, but ended up raising \$55,000 (Popper 2014), I had hoped my campaign might reach a broader audience, and result in a greater yield than my \$10K target. This was not the case; I reached the target, but barely.

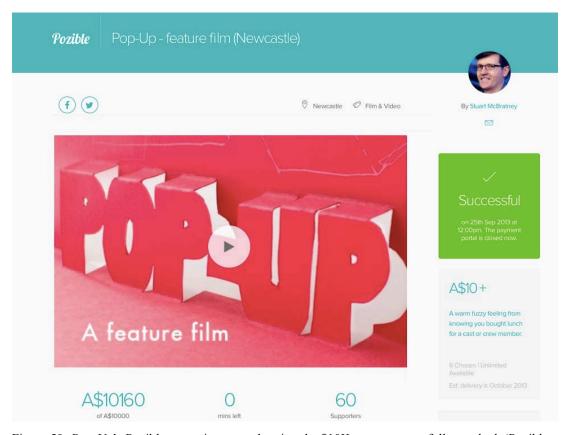


Figure 50: *Pop-Up*'s Pozible campaign page showing the \$10K target successfully reached. (Pozible 2013)

The majority of contributions came from family, friends, and those in my social network. Fewer than 10% of the contributions came from complete strangers. Fortunately, this \$10K allowed the film to commence production. I was able to shoot the first ten-day block, which roughly constituted the final third of the film. Upon completion of this block, I edited a trailer from the work-in-progress, and used it to launch a second crowdfunding campaign. This time I raised \$1.5K through Kickstarter (*Pop-Up – Australian Feature Film* 2014).



Figure 51: Pop-Up's Kickstarter page, which brought in an additional \$1,846. (Kickstarter 2013)

Before online crowdfunding platforms existed, filmmakers were already funding projects through their social networks, only in a less formal manner. Spike Lee funded *She's Gotta Have It* (1986) with his own funds, and those of friends, family, and local businesses. "I was kickstarting before there was Kickstarter" (Lee, cited in Hanna 2013). Darren Aronofsky took a similar approach, contacting everyone he knew, asking for \$100. "We drew up a clever letter and searched our rolodexes. The letter is doing well. People seem positive, and ten have already come through" (Aronofsky 1998, p. 19). Robert Rodriguez famously funded *El Mariachi* by offering his body to science, becoming a drug test subject in a medical facility, which raised him the \$7,000 he needed to produce the film (Rodriguez 1995). Kevin Smith maxed out ten credit cards, and sold his comic book collection, raising \$27,000 (Benson 2004).

The total production budget on *Pop-Up* was approximately AU\$50,000. After the crowdfunding, the remaining \$39k was raised through the production of TV commercials and promo videos I had been making concurrently. Aronofsky was also working in corporate video production during the making of *Pi*. "To help raise much needed \$, I turn to prostitution ... a multi-billion dollar oil company hired me to video an industrial that teaches people how to pump gas" (Aronofsky 1998, p. 18).

My budget was kept to a minimum through the use of students and recent graduates on work experience, through actors working on deferred payments, and through a small number of crew members being paid a stipend to cover their rent. Equipment was borrowed at no cost, or at a discounted rate. Editing facilities were largely based at tertiary institutions (see chapter: Post Production).

Locations

Bricolage and pragmatism played a crucial role during *Pop-Up*'s location scouting process. The completed film utilised around 80 locations in Australia, and ten in Romania, including a kindergarten, a hospital, a boxing gym, a karaoke bar, an alleyway, a cinema, a café, a church, a tunnel, a theatre, a mountain, two kitchens, two elevators, three beaches, and 15 streets. When it was difficult to source a location correlating precisely to the script, I re-wrote the script according to what was available. When I first wrote *Pop-Up*'s stories before commencing the screenplay, I was living in Brisbane, and had planned to shoot the film there. But upon moving to Newcastle, and subsequently being surrounded by beaches, I wrote this new setting into the script.

Production Journal:

I didn't want to just have a character inexplicably living next to the beach, like I just saw in the disappointing "Wish I Was Here", (a character with no money just happens to live on a spectacular waterfront, for no reason apart from it looking nice.) I didn't want to have characters chatting at the beach just because it looks nice either. I wanted the beach to be an important part of the story.

Early drafts of the script depicted the character of Sam as a tae kwon do practitioner, training in a hall with wooden flooring. But upon befriending the owners of Tuff'n Up Boxing Gym, I was granted permission to shoot scenes there. So I rewrote the scenes to involve a kickboxing demonstration in a boxing ring.

Production journal:

The Tuff'n Up Gym has one large window on one side of the building, close to the ring. It provides a combination which is rare to find naturally – lighting which is bright, diffused, and mono-directional. We could film it with a steadycam circling the ring during the fight sequence, and it'd look great.

Just prior to principal photography commencing in 2013, I learnt of the Fernleigh Tunnel in Adamstown, a former coal haul rail line tunnel now used as a bikeway. The final confrontation in which Neil follows Wesley with murderous intent lent itself to such a dramatic setting, so I wrote the location into the script. The resulting scenes add a suitably menacing tone to the finale.

Production journal:

Yesterday I was talking about the movie to someone at Tuff'n Up, and she said "Are you going to film in the Fernleigh Tunnel?" And I said, "What's that?" I googled it and it looked really cool. So today I went for a visit. It's amazing. So dark and creepy — like something out of "Suspiria". So I decided that the scene in which Neil stalks the killer should be preceded by Neil following him through this tunnel. When they emerge at the other end, Wesley will attempt to hang himself.

Each of the above examples demonstrates the use of bricolage. Like the sculptor using found objects, I curated interesting locations, then found ways to accommodate them. This process adds production values to the film, without increasing the budget.

Crewing

Producing a film on an ultra-low budget necessitates the use of volunteers. Objections to such enterprises might decry such business models as exploitative, or accuse them of depriving more experienced workers of employment. I acknowledge that using unpaid labour is not ideal; on future productions I hope to secure financing to pay every contributor. But in the case of *Pop-Up* there was a choice between a film being made with volunteers and deferred payment, or no film whatsoever. For a film student on holidays, or a recent film school graduate, the opportunity to receive extensive on-set work experience is invaluable. Indeed, work experience placements are an important part of any film school curriculum. A private film school education in Australia might cost many thousands of dollars per year. This gives students the chance to make films with their equally inexperienced peers, with most guidance coming from teachers who are not full-time industry practitioners. For no financial outlay whatsoever, aspiring filmmakers working on *Pop-Up* received extensive hands-on experience making a film

at a high level of professionalism. Feedback from my collaborators reveals them to be grateful for the opportunity.

Making a film with a crew of students did have its drawbacks though. One major problem was that a large number of shots turned out to be slightly out-of-focus. Some could be salvaged with a subtle sharpening effect during the colour grade, others could be cut around, while others required re-shoots. Like the lesson of using good actors on *Spudmonkey*, a lesson from *Pop-Up* was to always find money for a professional focus puller.

Production journal:

We were too rushed when shooting the bridge scene. Half of Hamish's shots are out of focus. So we'll need to re-shoot them. I also need to get a couple of close-ups. These won't take long to shoot, but it'll be a pain to have to get people back again.

Production Journal:

I've edited the Bacchus restaurant sequence, and only half of Neil's medium close-ups are in focus. Fortunately the master shots are sharp. But Bacchus has now closed down – its interior has been redesigned, so we can't reshoot there. So I'll Photoshop an empty background, print it out on paper (1m x 2m), and attach it to a wall, match the lighting, and re-shoot the scene in close-up.



Figure 52: Behind-the-scenes photo of Greg Powell's close-up re-shoots for the Bacchus scene.



Figure 53: Stills from *Pop-Up*. Comparison of the original Bacchus scene (left) and the re-shoot (right).

An additional lesson, which will inform my crew selection for my next feature film project, was that cohesion between personalities was crucial. On my first feature film, Spudmonkey, we were lucky to have had only one problematic crew member, whose behaviour resulted in him being removed of his duties after just a few days on location. The remaining weeks of production were smooth, and the cast and crew worked together in great spirits. Having enjoyed a smooth run on Spudmonkey, I was not as circumspect as I should have been when selecting my crew for *Pop-Up*, and proceeded without due diligence. I made the mistake of selecting certain crew members who clashed with each other, subsequently causing tension on set. While I was tense on Spudmonkey due to the internal pressures – I was personally ill-experienced, and had never worked such long hours – the pressure on Pop-Up was largely external. I had accrued years of professional experience by that point, but had never been forced to work in an environment where interpersonal relationships felt on the edge of boiling over into aggressive confrontations. But I am now thankful to have had this happen on a microbudget film, to ensure that my next project will not suffer the same fate. This approach to personality-focused crew building was articulated in Morley and Silver's A Film Director's Approach to Managing Creativity (1977, p. 61), in which they described a producer's priority when putting a team together:

They looked for people known to have a helpful, responsible attitude ("If I help him, they'll bend over even more to help me"). Most of all they wanted people who would not get "uptight".

My goal when putting a cast and crew together for my next film will be identical – to avoid people who are "uptight".

During the production phase of a film unit there are five main areas of concern that are common to all creative temporary systems. These include the need for people to get into a relationship quickly with the task and with each other; the cultivation of enthusiasm and commitment; the encouragement of creativity; the question of an effective leadership style on the part of the group's head; and the effective management of stress and conflict (Morley & Silver 1977, p. 62).

Production Design

With an entire budget of only \$50,000, the idea of "set design" is moot. With perhaps just a thousand dollars in total available for the art department, a microbudget production must rely on existing locations with low-budget flourishes. Dalsgaard (2014, p. 150) sums up this process in his discussion on pragmatism in design thinking:

Pragmatism frames designerly inquiry as an experimental process in which the designer draws on all of the resources at hand, as well as develops their own understanding of the situation in order to transform it.

Using only the resources at hand, no sets were constructed for *Pop-Up*; sets were found which already had the necessary design elements in place. Additional set dressing would be a last resort. For example, in an earlier draft of my script, I had an artistic landlord character making life difficult for his tenant by building an art installation from old machinery in their lounge room. This was proving impossible to acquire without money, so I took the essence of the scene, and scaled it back.

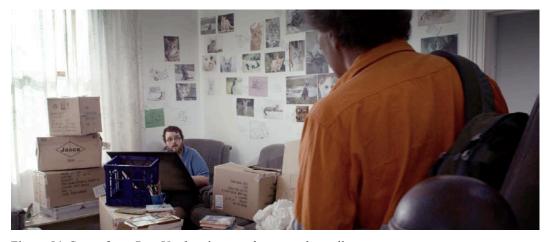


Figure 54: Scene from *Pop-Up* showing cat photos on the wall.

Production journal:

So instead of him being a sculptor, I made him a painter, who paints cats, justifying the use of public domain cat pictures to adorn his lounge room wall. We found a bunch of boxes too, which added to the scene, without costing a cent.

The frustration of the tenant – feeling his landlord was impinging upon his personal space – remained intact. Like the sheet outside the convenience store in *Clerks*, the pragmatism was written into the script.

On one occasion, however, we did use a set. In this case, it had already been designed for the theatre. One of *Pop-Up*'s three lead characters, Neil, is an aspiring playwright. To depict his play, titled *Metamorphology*, we needed a set, but could not afford to build one. So I contacted all of the local theatres, asking whether any might hire us an existing set, where we could film during days without scheduled performances. The Newcastle Theatre Company expressed interest, and eventually allowed us to film on their set for *I Am a Camera*, which was set in a ramshackle Berlin apartment on the eve of World War II. Knowing these parameters, I wrote the play sequences accordingly – set on the eve of WW II in a ramshackle Berlin apartment.



Figure 55: Newcastle Theatre Company's set for *I Am a Camera* being used as the *Metamorphology* set from *Pop-Up*.

In additional to filming the stage itself, the Newcastle Theatre Company also gave us access to their backstage area, lighting booth, and foyer. The latter was filmed during a

matinee performance of an actual play, so the extras were people who were actually attending a play.

Another example of pragmatism in *Pop-Up*'s production design can also be found in the character of Wesley, aka The Strange Man. In the finale Wesley attempts to hang himself from a tree.



Figure 56: Hanging scene in *Pop-Up* in which a harness was hidden beneath his fake belly.

Production journal:

I wanted Wesley to actually be suspended from a tree. Knowing we didn't have the money to do what they would do in Hollywood, to use super-thin but strong wires like Keanu Reeves hung from in The Matrix, then remove them digitally, I knew we could only access the more bulky harnesses used by rock climbers. So I needed to write this bulk into the script. Knowing that he'd be wearing a bulky harness for the hanging scene, we gave him a fake beer belly throughout the film. This way, when he's finally hanging, we could add extra girth without him suddenly changing shape. I worked with our makeup artist Donna Maree, the actor playing Wesley – David Elliot, and a climbing and rigging expert, to fashion a fake belly made from an oversized t-shirt with a pouch, and a lot of cushion stuffing. The resulting paunch is a perfect match for this strange, depressed-looking guy moping around the streets, staring awkwardly at passing pedestrians.



Figure 57: Actor David Elliot wearing a fake belly as Wesley in *Pop-Up*.

Photography

What is a film director? A man who's asked questions about everything. Sometimes he knows the answers. (*Day for Night*, 1973)

Directing is as much about time management as about creativity. During *Spudmonkey* I learnt that storyboarding well in advance is pointless, since each day's events affect the following day's schedule. A storyboard, which in its basic form is a visual shot list, must therefore account for limitations imposed by a schedule. This limitation is even more pronounced on a microbudget feature, where locations may only be available after-hours, or a crew member's availability is determined by their day job. As such, I left storyboarding to the night before each shoot day on *Pop-Up*. Despite being exhausted after a long day, often stretching from 5 am to 11 pm, I would summon the energy to storyboard the next day's shots. This was pragmatic for two reasons. Firstly, I was aware of any limitations resulting from schedule, location, or cast/crew availability, and secondly, my exhaustion filtered out any desire to design complex shots. In forcing myself to plan shots while craving the relief of five hours' sleep, I kept the coverage simple, ensuring we would finish the next day's shoot without going over schedule.

Here, the difference between "knowing how" and "knowing that" becomes evident, as outlined in Schön's *The Reflective Practitioner* (1983). Schön (1983, p. 34) argues that "competent practitioners usually know more than they can say. They exhibit a kind of knowing in practice, most of which is tacit". Having made my first short films at age 11,

and having worked professionally as a director full-time for a decade prior to shooting *Pop-Up*, it was this tacit knowing-in-practice which gave me the confidence to leave storyboarding until the night before the shoot. Having developed an instinctual understanding of camera placement, direction of actors, and scene coverage, combined with an acute awareness of time-management, my competency as a practitioner was a primary ingredient in the shoot's success. To use Schön's terminology, the knowing-in-action in this scenario is my on-set familiarity with film direction. But given that a microbudget shoot never goes entirely to plan, my ability to "respond to surprise through improvisation on the spot" – an ability gained through years behind the camera – is what Schön (1995, p. 37) terms reflection-in-action. An example of this was the day in which we were forced to abandon a location shoot due to a lack of a permit and subsequent threats of a council fine. My years of experience allowed me to know that the scene would cut together adequately if the missing shots were filmed in close-up at a different location. Upon relocating and resuming the shoot accordingly, we solved this problem.

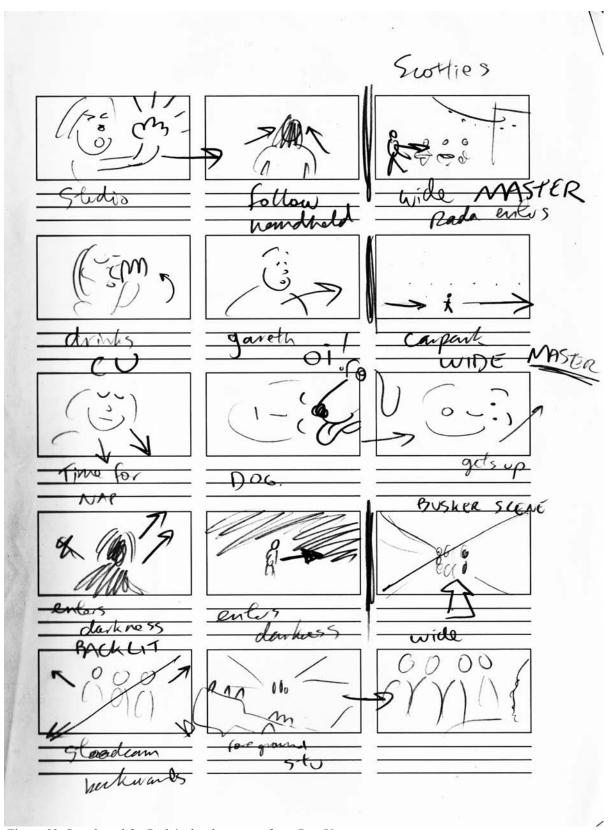


Figure 58: Storyboard for Rada's drunken scene from *Pop-Up*.

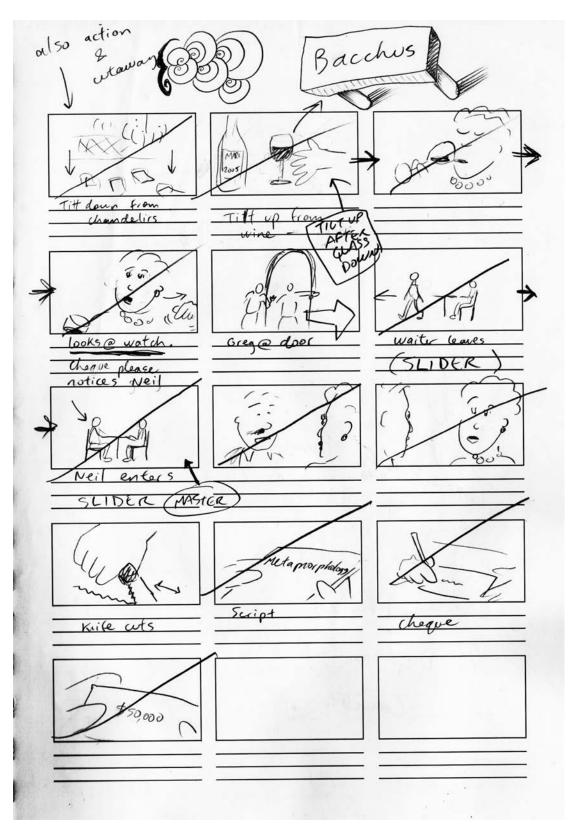


Figure 59: Storyboard for Neil's restaurant scene with his mother from *Pop-Up*.

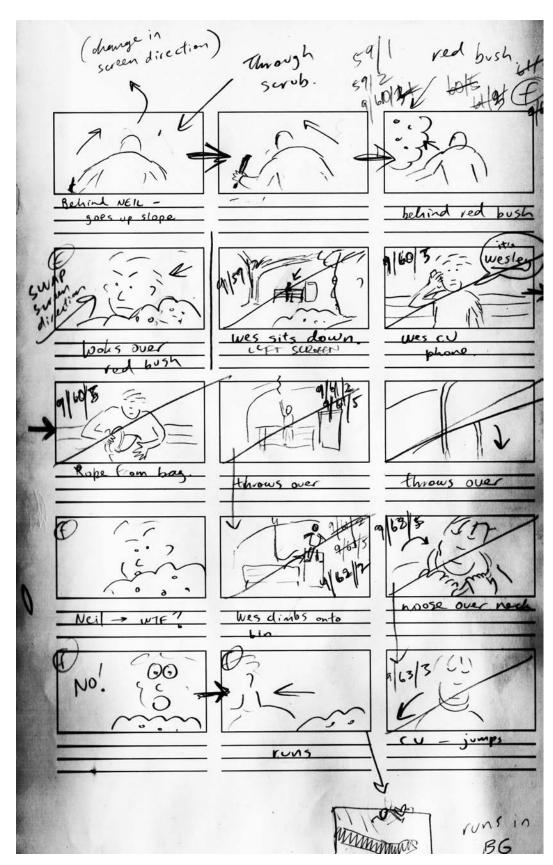


Figure 60: Storyboard for hanging scene from Pop-Up.

Since the cast and crew consisted almost entirely of volunteers, I knew that working extremely long hours would result in people quitting. We planned to shoot a 12-hour day each day, including a break for lunch. Only on two occasions throughout the entire shoot did we go overtime, and never for more than 30 minutes. Generally, I would block a scene in a standard fashion, including a master shot, and reverse angles. By keeping the shooting style simple, I was able to concentrate on performances, rather than take up valuable shooting time with complex camera moves. On the occasions when complex camerawork was required, more time was always scheduled. For example, the scene in which Neil drives to the beach employed a jib – a small crane that allows the camera's elevation to be raised or lowered during a take. While common on a large budget feature film, the additional time required to perfect such a shot makes jibs less attractive to microbudget filmmakers. We used this tool only twice during the entire production, but its inclusion adds production values to the film overall.



Figure 61: One of only two jib shots in *Pop-Up* used in the final shot of the film.

A demonstration of the aforementioned Japanese art of *kintsugi* can be found, metaphorically, in the ways problems have been overcome during production.

Production journal:

Today we shot Neil's beach scene. Greg (Neil) only informed me a few days ago that he has a serious phobia of having his head under water. As a result he can't swim. So we put him in the kiddy's pool, which was only 30cm deep. He still struggled, but we got the shot.

Production journal:

We just wrapped the Australian shooting. The character of Rada, played by Clara Voda, had to drive around looking for Sam at one point. But it turns out Clara can't drive. So I asked Kayla, our props girl, to create a steering wheel on the passenger side of her car (which we were using as Rada's car) so that we could shoot her then flip the image around in post-production. We also had to remove the birthmark from her face, because when reversed it would be on the side unseen by the camera.



Figure 62: Driving shot in *Pop-Up* using fake steering wheel and flipped image.

The production kept to a tight schedule. Without the budget and the inclination to record a large number of takes, we averaged around four takes per set-up. During the sequence in which Rada covers her birthmark with makeup, drinks a bottle of vodka, and embarks on a drunken rampage through Newcastle, the schedule was extremely tight. We shot from sunset to sunrise, with a break for a meal around midnight, and filmed at a total of ten locations during this time. We could afford only 30 minutes per location, then 15 minutes to relocate. In this problematic situation, an aspect of design thinking came into play, namely that I was forced to function at an instinctual level, due to the extreme time restraints. Throughout my career directing hundreds of commercials I had experimented with numerous techniques, and had built up "a repertoire of experiences that helped [me develop] an intuition of what will work in the problematic situation" (Dorst 2010, p. 133). This mirrors the tenets of pragmatism, in which a belief system is only granted relevancy through demonstration of its real-world application. Over many years of filmmaking, I gradually learnt which directing methods yielded the best results, allowing me to shoot a complex sequence under severe time restraints, whereby "every

connected series of experiments constitutes a single collective experiment" (Peirce 1905, p. 172). A boxer might train for twenty years repeating the same exercises, but when facing an opponent in the ring, he's not conscious of the split-second decisions he's making – he's running purely on instinct. Similarly, a film director must instinctively make hundreds of judgements per day based on years of training.

Production journal:

Tonight was intense! We needed to shoot a heap of scenes in the one night, in which Rada gets drunk and does lots of crazy stuff. We only had 30 minutes to shoot at each location, so every spot was chosen due to its available lighting. At one point we had her turn up at an outdoor fish and chip shop, and steal someone's drinks. A passing security guard walks past and stops her in her tracks, but she just hits him repeatedly with her handbag.



Figure 63: Scene from *Pop-Up* at Scotty's Fish and Chips making use of natural light on location.

Production journal (continued):

Then later on, we had some amazing luck with the wildlife. For one of the final moments Clara had to lie down, drunk, in the carpark by the beach. I took some inspiration from the Tarkovsky film "Stalker" – in which a guy is lying in a puddle, and a dog comes along and nudges him awake. I wanted a dog to nudge Rada awake, but this wasn't really possible without a trained movie dog, so a friend's daughter had her dog on a lead, and we put some snacks on the ground next to Clara's head. The girl walked the dog over, and he ate the snacks, nudging Clara awake. Hopefully it looks ok.



Figure 64: Dog scene in Pop-Up.

Production Journal (continued):

But the best bit was the seagull display. The moment I yelled "action", Clara walked across the frame in a wide shot, and lay down on the bitumen. As soon as she lay down, a flock of seagulls approached, drawn to the big light. They circled, swooped, and looked amazing.



Figure 66: Scene from *Pop-Up* in which seagulls emerged with perfect timing.

This moment in time captured on camera, but never to be repeated in the real world, mirrors the phenomenological description of photography by Blake Stimson, in which he describes the moment of taking a photo.

In the dancelike exchange between the movement of the subject and the movement of the photographer's shutter finger or in the exchange of looks between subject, photographer, and beholder, a constellation of forces all line up to a decisively momentary point or punctum that floods over with a universal meaning for photography – the meaning of simple human recognition (Stimson 2008, p. 114).

Here Stimson exemplifies hermeneutic phenomenology by extracting meaning from the lived experience – his moment-by-moment description of an exchange between subject and photographer, and the derivation of this "simple human recognition" as its essence. The meaning derived from such moments during *Pop-Up*'s production need not align with the ethereal nature of Stimson's deduction. In the case of the swooping seagulls, any shoot is likely to capture some happy accidents. With perhaps 500 set-ups in total, chances are that at least one will result in something unexpected yet pleasant. The meaning is closer to the phrase typically associated with Woody Allen, that "eighty percent of success is showing up" (Weintraub 2008).

Production Journal (continued):

We managed to get a heap done in a small amount of time. It's going to look great when cut together. It's pretty funny though, because in the script itself there was almost no detail provided. I had simply written: "Rada wanders around town. Her sense of time is distorted. She's walking one moment, stealing a bite of a stranger's pizza the next, drinking water from a tap the next, then walking again, carrying her shoes." But rather than stick to this, I was pragmatic with the locations. I found a heap of spots with plenty of available lighting, then drew them all on a map. I then drew a line between ones that would be easy to get to one after the other. When something was too far out of the way, it was scrapped. And since one of the locations turned out to be a cinema foyer, we substituted the pizza for popcorn.

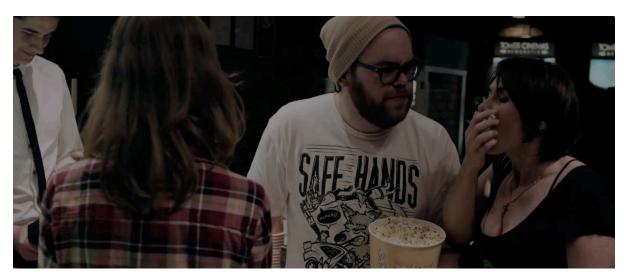


Figure 67: Popcorn scene from Pop-Up. Popcorn replaced pizza due to the available location.

Production Journal (continued):

Soon, I'd traced a line through a map of Newcastle, and had marked about 10 well-lit locations in a row. We would spend 5 hours filming them, allocating just 30 minutes per location. Luckily it all ran like clockwork, and the results are good.

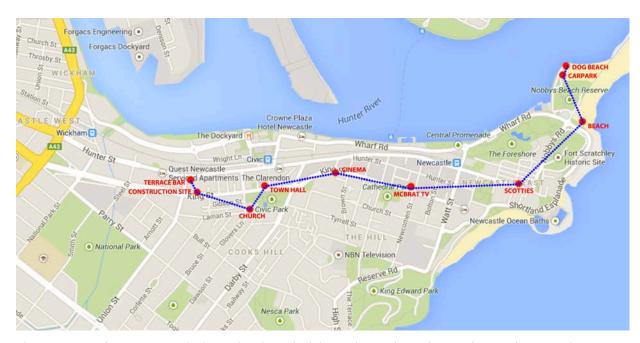


Figure 68: Map from *Pop-Up* Block 6 – shooting schedule. Each stopping point was for 30 minutes, and selected due to available light and proximity.

Production Journal (continued):

Clara plays a great drunk. The shots of her sculling the vodka then smashing the bottle look awesome. And when she's right at the end of the journey, she looks completely off her face.



Figure 69: Scene from *Pop-Up* in which Rada is drunk.

Without permission to shoot, the threat of council interference loomed. Fortunately, the officers didn't seem to work at night, so we faced no resistance during these scenes. This was not the case, however, during the shooting of the film's crucial collision scene, which connects all three narratives, during which we were asked to leave.

Production journal:

Today we filmed the big collision scene, which is the central event linking all three stories. I was under the impression that we didn't need permission to film in public, as we were only using a handheld camera and no lights, but evidently the online source of this info was inaccurate. At around 10am, the council kicked us out. We weren't doing anything wrong whatsoever, except for filming without permission that we didn't think we'd need. The council guy then said that if he caught us filming again in public without permission I'd receive a fine. He didn't say how much, but I can imagine it'd be more than a parking ticket. So we kept filming anyway, albeit in stealth mode in other locations. I wish I could find something positive about this experience, but nope. It is nothing but a huge disruption. Filmmaking is stressful enough as is without this happening.

In contrast to the scenes filmed in Newcastle, where we were constantly looking over our shoulders, the entirety of the shoot in Romania was uninterrupted. The local council welcomed our production, as they understood its value as a potential boost to the economy, and to attract potential tourism dollars. They even gave us free accommodation in a museum dedicated to their most famous poet.

With a production that lasted two years, \$50,000 was not going to last for its entirety. By the final stages of shooting, I was down to my last few dollars.

Production journal – January 17, 2015:

We start Block 8 tomorrow – pick-up shots. I have only \$200 to last 6 days of shooting, so this will be extremely tight. But serendipity strikes again. I bumped into an old friend, who's now working at a sushi joint. She said they throw out heaps of sushi every day. So I was like, "Don't throw it out! I'll feed my crew with it!" So now we have catering sorted.

Jan 18

Today we start shooting "Block 8". This will be the most minimally-crewed block of all. I'll have one assistant with me at all times. And that's it. Tonight we're shoot the only remaining complete scene – the flashback of Clara as a toddler, and her mother telling her that her birthmark is a gift from God. It's an important moment, because it creates the justification for her not having surgery to fix it. It goes together with the shot of her devotion in the Orthodox church in Sebes, which is also seen in flashback.



Figure 70: Rada as a child – scene from *Pop-Up* shot during the later stages of production.

Production Journal: Jan 22

I have \$4 left in my account. My helper Naomi was my hand double for May Grehan (Yana), which required red nail polish. Then tomorrow she'll be Clara's hand double,

which requires the removal of the nail polish. So I need to buy nail polish remover. I can't even afford that, because I might need the \$4 to buy bread. Hopefully I can find someone who has nail polish remover.

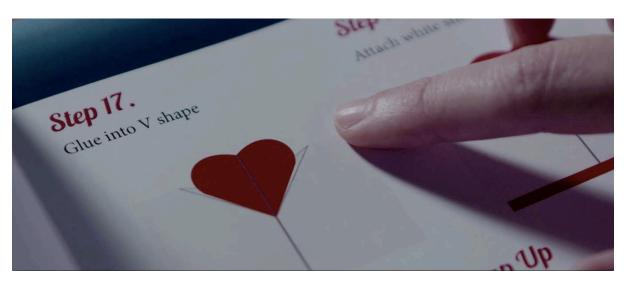


Figure 71: *Pop-Up* pick-up shot using Clara Voda's hand double.

Jan 24

Made it! My flatmate had nail polish remover. Somehow it all came together, despite having a mere \$200 to spread out over the week.

Tonight, I learnt a valuable lesson. Luckily I didn't learn it the hard way. At 8:30pm, with leading lady Clara being driven from Sydney by her husband for reshoots on the bridge, I realised I'd left the microphones at uni. So I scrambled around, calling everyone in Newcastle who's involved in film production — most of whom are my mates. Finally Allen Brady answered. He was like, "Yeah man, I'm having a few drinks, but come get the keys to my apartment and grab the mics." What a legend. In the end, we only started 45 minutes later than planned. My cast and crew were sympathetic — I think they realised I'd been pushing myself all week.

So the lesson: you're never in this alone. You require a support network. You need people who've got your back. And that'll only happen if you're nice. In a nutshell – be nice to people, because one day you might need the keys to their apartment.

Through a combination of nature, nurture and intention, I have managed to acquire a reasonably agreeable nature, which has clearly been helpful during the filmmaking process. Agreeability is a form of pragmatism; being a curmudgeon is hardly conducive to relationship building, and much of a filmmaker's success is dependent upon finding enthusiastic collaborators.

Block 8 was not to be the last. For the next eight months, I would conduct sporadic shoots, mostly involving close-ups and cutaways which were required for continuity reasons. After a total of 50 shoot days, spread out over ten blocks of shooting in a 24-month period, in four cities on two continents, *Pop-Up* was finally 100% "in the can" in on August 7, 2015, just eight weeks before its first public screening on October 4, 2015.

Shooting a feature film, especially one with an ultra-low budget, demands that the filmmaker remains flexible. Rather than resisting against an unforeseen event, you simply find a way to incorporate it into the film. Francois Truffaut (1954, p. 7) said it best in 'A Certain Tendency of the French Cinema': "The artist cannot always dominate his work. He must be, sometimes, God and, sometimes, his creature."

Editing

Designers are often faced with challenges or problems, which cannot be exhaustively analyzed in advance to the point that the designer can lay out a clear-cut plan for how to solve them (Dalsgaard 2014, p. 145).

While most feature film productions have both a director and an editor, or even a team of editors, I edited *Pop-Up* myself. Due to time and budget restrictions, I was unable to shoot numerous takes of any given shot, and as a result, this low shoot ratio streamlined the editing process. While an editor on a large budget production might need to sit through 20 takes of each shot, we averaged around four takes per shot. Sometimes, due to the focus problem, only one take was useable. In extreme cases, there were no useable takes of a shot. In the worst cases, every angle of a certain line of dialogue was completely unusable, so a re-shoot was required. As Robert Rodriguez said, "You have to become almost obsessed to get it done" (cited in Industry Central 1995). The edit took place using a Mac Pro at the University of Newcastle. Ill-equipped to handle

terabytes of data using uncompressed 4K or 5K footage in the RedRaw format, the edit was a constant technical battle. I estimate that the total duration of the edit was increased by three months due to insufficient processing power. With no other options, and no on-campus technical support available with a professional level of post-production expertise, I persevered and researched how to best configure the system. The edit eventually took around 18 months.

Production journal:

The edit's pretty much done now. The very first edit came in at about 124 minutes. It's now down to 94 minutes. This means I've basically chopped out a quarter of the film. I'm way happier with it now – it's heaps more snappy, and not bogged down with scenes that go nowhere. Despite my meticulous assessment of the script, in which I searched for scenes to chop, somehow I ended up shooting a heap of stuff that didn't make the final cut. I guess that's just part of the filmmaking process.

Poet Paul Valéry said that "a poem is never finished, only abandoned" (Enterline & Shukraft 2012, p. 7). Likewise, a movie is completed at the point where the director concedes that nothing else can be fixed, and that he'll just need to live with his mistakes, and hopefully not make them again next time. The editing process is often about making the most of imperfect footage – an opportunity to fix mistakes resulting from the urgency of on-set decision making. My production diary recorded on the day of the YouTube proposal video shoot is a good example of this.

Production journal:

I was really underprepared for the proposal video today. We had next to nothing planned in advance. I wanted the dancers to be pretty hopeless, so the video wouldn't be too polished. Yep, definitely achieved that. Heaps of the people I had contacted, and who'd agreed to show up, just did a total no-show. So I was forced to recruit as many crew members as possible. It'd be fun to point out the multiple times the same crew members have appeared as extras in multiple scenes. When we got to the location, which was an elevated section of King Edward Park overlooking the ocean, I really had no idea what I was doing. Somehow we got it filmed, but there was no video split, so I couldn't see anything anyone was filming. Maybe it's better that way so it doesn't look like I was directing it. It needs to look a bit lame – like Neil made it. And Neil's meant to be a bit dodgy.



Figure 72: The proposal video scene within *Pop-Up* intentionally shot and edited poorly.

I later reassessed the footage in the edit suite.

Production Journal:

I was right. The dancers are really half-arsed, the camerawork is too wide, and the song's too slow. So I'm going to have to make the edit super-cheesy with heaps of lame wipes and colour effects. Maybe I'll speed the whole thing up too. I'll have to just muck around with it and hopefully salvage it. But the good thing is that it's meant to suck.

The first edit of *Pop-Up* was completed on March 6, 2015, and went for two hours and four minutes. While relieved to have assembled it, my friend and fellow filmmaker Evan Olman – the actor who played Richie in the sequences shot in Romania – was instrumental in helping me carve it into a final product. His fresh eyes were akin to a surrogate audience, giving me an objective insight into the film's effectiveness that my years of sustained focus had blunted. Despite reading through the screenplay countless times over half a decade, declaring that every scene on paper was necessary to tell the story, the first cut revealed the truth, that about a quarter of the film could be discarded. Reluctant at first to agree with Evan's blunt assessment, I eventually conceded, and became determined to trim the film to its tightest version possible. This process proved difficult. In my mind, the film had been reduced to mere pixels and sound waves after years of production; I was incapable of having an emotional response to it. Given that a film is designed for an audience, I needed to study the reactions of others to gauge its

effectiveness. After the first public screening on October 4, 2015, I concluded I could still remove an additional eight minutes of screen time. The final edit came to 90 minutes and forty seconds, including three minutes of end credits. By removing a total of 37 minutes of footage, the equivalent of 12 shoot days worth of work, the film was able to find its central story, and deliver the emotional reaction intended in an audience. Christian Metz (1974, p. 101) discusses this communication between the filmmaker and the audience:

To "speak" a language is to use it, but to "speak" cinematographic language is to a certain extent to invent it. The speakers of ordinary language constitute a group of users; film-makers are a group of creators. On the other hand, movie spectators in turn constitute a group of users. That is why the semiotics of the cinema must frequently consider things from the point of view of the spectator rather than of the film-maker.

Editing, more than any other aspect of the filmmaking process, is bricolage; the whole is constructed from the pieces at hand. Sometimes the pieces are good, as was the case with the sequences of *Pop-Up* filmed in Romania. And in other cases, they are a disappointment and/or redundant, as was the 37 minutes worth of scenes that were removed between the first and final edits. Fortunately, the finished edit proved that the available elements were "good enough"; the completed product has screened in 12 countries at 18 film festivals and has secured international distribution.

Sound Mixing

The process of self-financing and producing a microbudget feature film has provided valuable lessons in personnel management. As mentioned earlier, the most crucial of these is to not commit to working with people too early, as they may turn out to be unsuitable. Another lesson is that filmmaking can seem appealing at first, then quickly lose its lustre, as demonstrated by the two people remaining from 30 TAFE students who had initially volunteered to help record and mix the post-production sound.

After speaking at an event in Newcastle about local media production, I struck up a conversation with the evening's sound mixers. They turned out to be TAFE students in their final year of a diploma in sound mixing for music and film. They put me in touch

with their supervisor, with whom I met the following week. He offered to integrate the sound design requirements of *Pop-Up* into their syllabus. The initial 30 students' interest waned quickly. Within a fortnight most had dropped out, leaving six students. After another week it was down to four, then three. Finally, I was left with two students, who remained dedicated to the task, and who threw themselves into the role with utmost professionalism.

While a studio film might have a multi-million dollar sound budget, a government-funded Australian film might still have a budget of \$250,000 for a feature film's sound design. By the time we were at the sound mixing stage, I had spent every dollar I had raised, and since I was working on the movie full-time, the only money I was making was used for rent and groceries. While the shoot was a microbudget production; post-production was no-budget.

Aaron and Mike, the two remaining TAFE students, worked many long hours over a period of four months. Their roles were to record and mix the ADR – Additional Dialogue Replacement, and the foley – synch effects such as footsteps and rustling clothes.



Figure 73: Eugene Gilfedder records ADR at the Hunter TAFE.

I wanted to create a world-class film, so I expected my collaborators to rise to the occasion. In this case, it required foley and ADR to be indistinguishable from a live recording. Foley is time consuming due to the detail required; rustling clothes are seldom noticed consciously when watching a film, but their absence is felt immediately. The luxury of foley, however, is that it need not be frame-accurate at all times. Provided it is in synch with the action, and sits well within the context of the environment, it can suffice.

ADR, on the other hand, demands absolute perfection, or the audience will pick up on it instantly. The camera on which we had shot the Newcastle sequences, the Red Scarlet X, delivers a high quality 4K digital image, but its cooling fan is very noisy. Without a proper de-noising sheath, the resultant audio signal sounds like someone drying their hair a few steps away from the microphone. We did not have the correct sheath, so the majority of our location recordings were unusable in their raw form. I was able to procure some de-noising software, which helped significantly, but in more intimate scenes, where the camera was close to the actors and therefore the microphone, the dialogue was unusable and required dubbing.

Production Journal

The ADR process involves each actor repeating 2-second excerpts of every line around 10 times, synched with the performance which made the final cut. When their dubbed version perfectly matches the original version, they move on to the next segment. For a lead actor, the process might require a full 8-hour day to complete all of their scenes. For a small part, it might only take a few minutes. But across the entire film, the process took weeks.

SEPT 22

It's the final days of mixing. And at this exact moment, there are jackhammers literally right beneath my suite. I have Lara in here helping me. We have to raise our voices to speak over it. That's how loud it is. It's been going all day. All I can do is laugh.

Working towards a really tight deadline is a blessing and a curse. But mostly it's a blessing. There's a sense of urgency about it that forces the job to get done. The most challenging part of it is that no-one is being paid, so I can't expect anyone to work as hard as me. The TAFE guys have been doing a great job, but they can't do many

hours/day due to restricted suite access, and the need to travel a fair distance to get to the campus.

This exeges is could have included the word "serendipity" in the title, such was its role through production. The sound mix was no exception. At the precise moment when I needed to meet someone to help out full-time, I received help from UK-based filmmaker Richard Millington. He and I had previously worked together in London on a proof-of-concept video for a factual TV series called *The Canal Boat Cook*. Just two months before *Pop-Up*'s first screening in October, Richard moved to Newcastle. Unable to find work due to Visa restrictions, he was looking for voluntary work in the film industry. We settled into a routine, in which I'd spend seven days a week recording and mixing Pop-Up's 5.1 surround sound mix, and Richard would help out on average for five of those days. Without his help on the final stretch, I would not have met the deadline. Microbudget filmmaking demands that the filmmaker makes use of whichever elements are at their disposal. In the case of personnel, this is no different. Having worked with Richard previously, and having formed a solid bond through shared values favouring relationship building and long-term filmmaking goals, he was later able to be "at my disposal" during a crucial time during *Pop-Up*'s post-production. The use of facilities at the New York Film Academy, TAFE, and the University of Newcastle, all of which I was able to access without monetary outlay, further supports my hypothesis that bricolage is a crucial element in the design of a microbudget feature film production.

Music

Playing guitar for 29 years allowed my style to gradually evolve into a unique sound. Despite my cultural heritage being Anglo-Saxon, I was drawn to playing finger-picked acoustic on a classical guitar, combining jazz, blues, Spanish and even metal techniques. The closest approximation of the resulting sound might be the music of Macedonian guitarist Vlatko Stefanovski. I considered this style to be particularly cinematic, so I made the decision early in the production of *Pop-Up* to utilise my own playing in the motion picture soundtrack.



Figure 74: Recording the original soundtrack at the University of Newcastle.

I felt, however, that such music was incongruous with a sunny beach setting, as it connotes Central Europe. My solution was a combination of pragmatism and bricolage. I decided to write myself into the script as a busker, introducing the style of music diegetically as my character "Hamish" busks on a bridge.



Figure 75: The author (right) as "Hamish" in *Pop-Up*.

Most of the subsequent instances of my finger-picked guitar soundtrack were non-diegetic, as the music would play over scenes to provoke a certain mood. But by introducing a context for this style, it felt connected to the action throughout. This decision was a form of bricolage, as my own musical ability was one of the elements at my disposal. And by adjusting my story to accommodate a style of music, it can also be classified as pragmatism.

The tone of the film was set by the dialogue, cinematography, locations, and performances, but also largely by the music. I had considered using no music, such as in *4 Months, 3 Weeks and 2 Days*, but I concluded that such a desolate mood was not appropriate; I wanted *Pop-Up* to be emotionally evocative, and to build to a stirring crescendo just before the end credits. The first two stories – about Mick and Rada – primarily use finger-picked guitar, then the third story – Neil's – incorporates electronic music, all of which I composed. I felt that the tonal shift of the story from straight drama to dramatic comedy, necessitated an accompanying tonal shift in the music. Certain scenes were augmented by public domain classical recordings, such as during the "Metamorphology" play, and Rada's flashback to the mountains of Romania.

The finger-picked guitar was recorded during a single session, by producer Rob Taylor, who was also undertaking a PhD at the University of Newcastle at the time. We recorded the guitar in the University of Newcastle's ICT studio. The session was made up of four takes, each around 10 to 15 minutes in duration. The music was largely improvised around several pre-written motifs.

During the third story of the film's triptych structure, in which Neil directs a play then decides to kill the critic, I opted to include electronic music. Much of this was written on my laptop during my weekly trips to Sydney to teach film production at the New York Film Academy. As this music was produced by the layering of multiple tracks, the tracks were able to be spread around the 5.1 surround sound map, giving the score a greater sense of depth.

The score also incorporated music I had written previously under the Mischief Engine moniker, in collaboration with Berlin-based DJ/producer Chi-Thien Nguyen, aka Chopstick. I later remixed one of the tracks, "My Oh My", to play during the film's

final montage, just prior to the end credits. For this remix, I wrote four harmonising violin tracks, which were performed by a high-school student multiple times to produce an orchestral effect, then again mixed in 5.1 surround sound.

Using multiple styles and sources of music that I could create or access freely, supports my argument that pragmatism and bricolage are useful practices in creating a microbudget feature film. It was pragmatic to avoid music that would require an outlay of licence fees, and it was bricolage to use the music I already had at my disposal, in addition to the music I knew I was able to compose myself.

The Completed Film and its Exhibition

Pop-Up's World Premiere took place at the TCL Chinese Theatre on Hollywood Boulevard, Los Angeles, screening in the official competition of the 2016 Dances With Films festival.



Figure 76: *Pop-Up*'s cast and crew attend the world premiere at the Chinese Theatre, Hollywood Boulevard, Los Angeles.

The festival awarded the film a Jury Prize, resulting in the opportunity to take meetings in Hollywood. By December 2016 I had secured top-level representation as a writer/director, leading to the opportunity to direct my new screenplay in 2018 with a \$2,000,000 budget.

Pop-Up has screened in 18 festivals, in the US, UK, Canada, Australia, Romania, Germany, Spain, Cambodia, India, The Phillipines, and Barbados.



Figure 77: Selected laurels from film festivals at which *Pop-Up* has screened.

Through Los Angeles-based sales agent Oration Films, *Pop-Up* has now sold to Chinese distributor Lemon Tree Media, and to US distributor Freestyle Media.

SUMMARY

My hypothesis is that the most successful ultra-low budget features are those in which the filmmaker balances creativity and compromise, finding inspiration in the constraints. In attempting to prove this in my research, I have aimed to answer three primary questions:

- 1. What have been the driving motivations of filmmakers involved in microbudget feature film production?
- 2. What are the inherent challenges in the microbudget feature filmmaking process?
- 3. From the perspective of a filmmaker, how can an understanding of pragmatism and bricolage be developed and applied to the process of writing and directing a feature film on an ultra-low budget?

Each of these questions has been answered in the manner indicated below:

Filmmakers who create microbudget features are motivated by the desire to enter the film industry, but are conscious of their outsider status, and are therefore unable to access the personnel, financing, and equipment necessary to produce a film on a larger budget. They are forced to be resourceful, and combine their natural determination with creativity to create a work of sufficient quality to be selected by the field. Aronofski, Smith and Linklater were all motivated to have a career as feature filmmakers, rather than merely to make a single film. Having now written and directed several multimillion dollar films each, their drive to succeed and their flexibility in working with available resources has been rewarded by acclaim, financial rewards, and creative independence. By not letting their lack of resources deter them, but instead absorbing this constraint into their project design, they created outstanding works of both aesthetic and commercial acclaim. Similarly, my production of *Pop-Up* was created through a combination of willpower, single-mindedness, and determination, abetted by flexibility. Despite a dearth of funds, I was able to complete *Pop-Up* at a level of professionalism that has seen it invited to numerous international festivals, secure international distribution, win several awards, and launch my career in Hollywood.

The microbudget feature filmmaking process faces numerous challenges. Whereas a fully financed production employs professional crew members in every role, a microbudget production must rely on unpaid interns, who are usually film students or recent film school graduates. While their desire to participate in a full-scale feature film production translates into enthusiasm, their lack of professional experience can have major technical implications, as noted by *Pop-Up*'s numerous out-of-focus shots necessitating complex and time-consuming re-shoots. Additionally, by skipping the "selection by the field", personalities that would never have risen in the ranks of professional industry were able to gain a high level position within the crew, resulting in personality clashes, and causing unnecessary tension on set. Other challenges were overcome with the use of pragmatism and bricolage; by rewriting the script to accommodate the means, the film was produced within the boundaries of available resources, ensuring that locations, props, and sets were practical, and perfectly suited to the script. Despite the potential pitfalls, my case studies all demonstrat that a filmmaker

with \$60,000 or less can create a stunning work of cinema, through a combination of resourcefulness and tenacity.

An understanding of pragmatism and bricolage can aid the production of a feature film on an ultra-low budget. By applying these modes of thinking from the earliest conception of the story, during principal photography, and through to the completion of post-production, cinematic production values are never out of reach. Instead, the story is shaped to exist directly within the confines of the available means, encouraging the filmmaker to find personal stories that resonate with their own worldview. I have demonstrated that by adhering to these principles it is possible to film a movie on a \$50K budget on two continents, with hundreds of extras, in 80 locations, shot on 4K Red cameras, and mixed in full 5.1 surround sound. The resulting film's jury prize at a leading US film festival, its acceptance into 18 international festivals in 12 countries, and its director's subsequent offer to write and direct a Hollywood movie, demonstrates that pragmatism and bricolage are proven production strategies. Subsequent recognition by Hollywood industry insiders serves as evidence of my selection by the field.

A filmmaker need not be limited by budget to create a feature film that achieves international success. From this exeges is and my creative work, others can gain the knowledge of proven production methods for microbudget feature films. In applying the strategies of both pragmatism and bricolage from the earliest moments of writing, the film will be created within the restraints of the budget, making use of available elements. And while my extensive experience as a director of TV commercials has aided my ability to create a professional product, emerging filmmakers too can apply this approach as they embark upon the film production journey; the tacit knowledge that I have herein transformed into explicit knowledge can be applied directly to their own ideas. And while they are likely to make numerous mistakes – I am still learning every day myself – they can avoid unnecessary pitfalls. Whether such lessons are personnelbased, such as the avoidance of poor actors or disruptive crew members, or aesthetic, such as covering a white wall with print-outs of cats then writing the cats into the story, each lesson can assist in the goal of creating an imperfect yet satisfactory feature film. And over time, by dedicating time and energy to learning a highly complex, timeconsuming, and endlessly challenging art form, tomorrow's filmmakers can celebrate their successes at festivals around the world.

A systematic approach to problem solving akin to design thinking can spur the filmmaker to find solutions. Pragmatism and bricolage, while mostly regarded in philosophical terms, may be understood as practical real-world approaches for problem solving on a low budget creative project, in which the limited scope and means are aligned perfectly. While pragmatism and bricolage have individually been discussed in various forms for generations, their designation as two key principles underlying successful microbudget feature filmmaking is a new concept. Through producing my creative work and writing this exegesis, I have thought more deeply about the process of filmmaking, and reflected on the elements I had taken for granted. While reading *Rebel* without a Crew: Or How a 23-Year-Old Filmmaker With \$7,000 Became a Hollywood Player (Rodriguez 1995) had introduced me to pragmatism and bricolage under different names, it is only through the writing of this exeges is that I have begun to understand their wider value. In addition to writing a budget-conscious screenplay incorporating available resources, I now see pragmatism and bricolage as a philosophy that permeates the entire filmmaking process. From curating friends' amusing remarks, to being influenced by multiple artists spanning various fields, to adapting a character's core motivation in a ten-minute sequence, to using the post-production facilities of three separate educational institutions, this philosophy is a way of thinking that begins during the earliest genesis of an idea, and ends only when the final product has been mastered for distribution.

At a time when US film studios are prioritising comic book adaptations with budgets exceeding a hundred million dollars, and making a feature-length movie that secures international distribution seems insurmountable to outsiders, I have proven a viable path for aspiring filmmakers. In developing these concepts, clearly articulating my methodologies and practices, and exposing them to sustained and rigorous academic enquiry, I have begun to fill a gap in the academic literature on film and design, in both theory and practice. My research on the occurrence and implementation of pragmatism and bricolage, when applied formally to making a feature film, has been tested in the dissemination of the film *Pop-Up* and the completion of my PhD.

The main argument presented in this exeges is is to prove that pragmatism and bricolage are viable foundations for microbudget feature film production. This proposition is

supported by evidence of practitioners, including myself, successfully incorporating pragmatism and bricolage into their design practice. The international recognition of this work within the filmmaking field validates this argument, and is further supported by the opportunities now being presented to me in my chosen field.

The theoretical implications of this research are primarily associated with the fields of design and film studies. Additionally the philosophical studies of pragmatism and bricolage can now be broadened to include film production. By looking into specific creative decisions made by directors within the framework of bricolage and pragmatism, this study helps to fill a gap in the academic domain – an insider's view of the microbudget feature filmmaking process. This exegesis has subsequently transformed the process from tacit into explicit. The primary implication of this theory is that an academic investigation of film need not look exclusively at the finished product. By applying principles of design thinking to filmmaking, the thought processes inherent in the production of a film can enter the academic conversation on a wider scale. Given that a completed two-hour film generally requires hundreds of individuals working over several years to produce, each of whom has a story to tell, this is a relatively untapped field to explore.

This exegesis and creative work contribute to the field of design and filmmaking by combining both theory and practice – the production of a microbudget feature film from conception to completion on a budget of \$50,000 – and turning it into an international success, while tracking the process, reflecting upon it, and converting the success of the resulting film into a significant career opening in Hollywood. By comparing the challenges experienced by ultra-low budget filmmakers who have achieved international success to my own experiences, I have shed light on a pattern of creative thinking which has the potential to inspire fellow filmmakers and other creative practitioners. These understandings can enrich the practice of film production in both pedagogical and professional fields. The latter has been evidenced through application of my own findings.

An aspiring filmmaker may wish to create a movie about two people trapped in the International Space Station, though to create such a film with any level of realism might cost a hundred million dollars. Having raised \$50,000, they have two choices: abandon

the project altogether, or find a cheaper way of telling that story. And while a spectacular space opera may not be within reach of an ultra-low budget filmmaker, a poverty of means need not hamper a more modest concept. In many ways, it can force the filmmaker to invent novel solutions to problems. It can create an impetus to be a pragmatic bricoleur, to look inward to find a story's emotional core, and look outward to find available resources.

Making a feature film with a highly restricted budget has a particular set of challenges. To create a good film despite a lack of resources, the filmmaker must determine the essence of a scene and scale it back, and increase production values by seeking cinematic yet freely available locations and props. In finding a satisfactory balance, it is possible to create an ultra-low budget feature film of brilliance, beauty, or hilarity, as Aranofsky, Linklater, and Smith have done.

While single-mindedness, determination and hard work are essential in making a low-budget feature film, the chance of success can be enhanced by an informed and systematic approach. The research outcomes of my exegesis not only enabled me to understand the methods employed by other directors in the field of film, but also to draw on theories in the design field. This process has allowed me to approach my creative practice from a new angle; as a practitioner, I wish to improve my practice through an understanding of broader theories. It was, therefore, crucial to draw from the recognised fields of scholarly knowledge – both theories and methodologies – to elevate my tacit understandings of practice. My findings include insights from the "lived experience" of a film director – a reflective practitioner working in the field of film – the principles of which can translate into other fields of creative practice. By refining my creative process, I have identified "the actions that might effectively narrow the gap between what-is and what-ought-to-be" (Rittel & Webber 1973, p. 159), allowing me to make a better plan, and design a better outcome in my practice.

In testing my practice I have achieved international success, enabling me to reflect on and share the knowledge gained from this process – through both my exegesis and the film *Pop-Up*. The success and articulation of this approach can "inspire developments in other disciplines where the application of 'creative' or 'innovative' thought often takes place in a much more happenstance manner" (Dorst 2010, p. 137). In the process

of addressing my research questions in this exegesis, *Shoestring Theory*, and applying these ideas to my practice, I have developed a creative outcome, *Pop-Up*, a film that has been developed using the findings of my research. The success of *Pop-Up* is evidenced by its official selection in numerous festivals worldwide, in my subsequent representation by a Hollywood agency, and in my offers to direct further films.

These understandings can enrich the practice of film production in both pedagogical and professional fields. The latter has already been evidenced through application of my own findings. My new screenplay, *Don't Read This on a Plane*, was written in 2016 with the intention of filming it as a microbudget follow-up to *Pop-Up*, incorporating the tenets of pragmatism and bricolage. My agent has subsequently joined this project as Executive Producer, and at the time of writing is negotiating deals with established actors and investors. By implementing pragmatism and bricolage into a project at the earliest stage of development, and subsequently having it selected by the field, I have proven this strategy's efficacy as a wider design practice. The use of pragmatism and bricolage as useful tools in the production of other creative works demonstrates that "explicit theory, derived from and invented in particular situations of practice, can be generalized to other situations" (Schön 1995, p. 33).

This exegesis has outlined the symbiotic relationship between my research and practice. By recording and investigating the process in which one informed the other, I have become a better filmmaker. In future research, I may wish to identify additional innovators within the practice of filmmaking – both contemporary and historical. While the small number of case studies I have analysed provides a clear pattern of project design, the conclusions can be strengthened by a broader investigation within this field of inquiry which includes films outside the microbudget paradigm, as touched on during my paragraphs on Francis Ford Coppola's *The Godfather* (1972). Given that I intend to move directly into a new feature film project, I may also wish to develop additional autoethnographic papers. These may focus on the practical application of the findings within *Shoestring Theory*, and also develop and test new hypotheses. *Don't Read this on a Plane* will function as a testing board for the project design strategy outlined in this exegesis, and will also lend itself to new research questions.

While a typical feature film requires millions of dollars to produce, this creative work and its exegesis demonstrate that a lack of money need not prevent a filmmaker from achieving international success. The ultimate asset for a filmmaker is not money, but determination, and pragmatism and bricolage provide a method for focusing such drive. As *Pi* director Darren Aronofsky said in *The Guerilla Diaries* (1998, p. 19), "Anything to get it done."

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