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**Situating documentary film in a speculative future: an exploration
in multi species entanglements**

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**Situating documentary film in a speculative future:
an exploration in multispecies entanglements**

Iram Ghufuran

31 March 2022

A thesis submitted in partial fulfilment of the requirements of the University of Westminster
for the degree of Doctor of Philosophy

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Travelling – it leaves you speechless, then turns you into a storyteller.

Ibn Battuta

List of Contents

Abstract.....	iii
Author’s declaration.....	iv
Acknowledgements.....	v
List of figures.....	ix
Accompanying material.....	x
Prologue.....	xi
Introduction.....	1
0.1 Research background.....	2
0.2 Research components.....	7
0.3 Circumscribing the research area.....	10
0.4 Original contribution to knowledge.....	10
0.5 A minor practice and networks of affect.....	11
0.6 Structure of the written dissertation.....	12
Chapter 1. Yiwu: A journey from West Heavens to Miracle City.....	15
1.1 Introduction: A room in Chang Chun.....	16
1.2 How does Asia mean?.....	17
1.3 The Yiwu Project.....	20
1.4 Yiwu, Miracle City.....	21
1.5 On the nature of things.....	25
1.6 On companion seals and dolls we love.....	37
Chapter 2. Contextual Review: Futures in documentary film.....	40
2.1 Introduction.....	41
2.2 A World’s Fair in Yiwu.....	41
2.3 Futures thinking: a conceptual overview.....	43
2.4 Documentary film and futures.....	48
2.5 Marco futures, scientific ‘speculations’.....	54
2.6 Contingent futures in <i>The War Game</i> and <i>Dr. Strangelove</i>	55
2.7 The documentary impulse.....	57

Chapter 3. Research methodology: Speculative fictioning in <i>A Terrible Beauty</i>	61
3.1 Introduction.....	62
3.2 The many fictions of documentary.....	62
3.3 Thinking with Lucy and Blue.....	65
i Becoming Lucy.....	65
ii Emergence of Blue.....	68
3.4 Speculative Fictioning: A conceptual journey.....	71
i A speculative impulse.....	71
ii A practice of fictioning.....	78
3.5 Worlding a future into being.....	79
i Cohabiting theory and practice.....	79
ii The naming of <i>A Terrible Beauty</i>	81
iii Locations in <i>A Terrible Beauty</i>	81
iv Cinematic techniques: static shot and long take.....	83
v Science fiction tropes: filming an everyday futurity.....	86
vi The object looks back: mannequins, dolls and androids.....	89
3.6 Spinning a yarn: rendering research as fiction.....	93
 Chapter 4. Relational Proximities: Companion Copies in Everyday Life.....	 97
4.1 Introduction: Conversation with a nonhuman.....	98
4.2 Being human with.....	100
4.3 Nonhuman as a Companion.....	106
4.4 A turn from “Companion Species” to Companion Copies.....	107
4.5 The animism of the Companion.....	113
 Conclusion.....	 119
Appendix: Voiceover script for <i>A Terrible Beauty</i>	125
Bibliography.....	134
Filmography.....	163

Abstract

This practice-based research is a formal experiment in situating documentary film in an immanent future and, by doing so, puts forward propositions on what it means to be human in an entangled multispecies world.

The research consists of *A Terrible Beauty*, a feature length documentary, and this dissertation. The film was largely shot in Yiwu, home to one of the largest wholesale markets in the world and an important node in the New Silk Road. Set in the world of anthropomorphic goods and objects, including dolls, mannequins and androids, the film follows two time-travellers as they confront questions of time, mortality and what it means to be human in the Anthropocene. The dissertation describes the practice methodology that I developed in the course of the research and reflects on the propositions that the film offers for the future.

The research poses the question of how documentary film practice may be situated in a quotidian future and what the value of such a future orientation may be. At the methodological level, I suggest that there are extremely productive overlaps between science fiction and documentary film, and the dissertation reflects on the conceptual journey and experimental routes that I took to arrive at the idea of “speculative fictioning” as a method for documentary practice. The research is in conversation with – and also contributes to – critical concepts from science and technology studies. In particular, I draw on the work of Donna Haraway and extend her insights on human-animal relationalities (“companion species”) to the world of anthropomorphic objects and develop the idea of “companion copies” as a way of rethinking human-nonhuman interactions. If to be human has always entailed *being human with* other species, I ask what would it mean to discover our humanity with our companion copies such as robots and androids?

The research serves as an invitation to think about how an ontological regard for things may allow us to cultivate a better regard for fellow humans as well.

Author's declaration

I declare that all the material contained in this thesis is my own work.

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List of figures

Fig 1.1 : Lucy in our room in Chang Chun. Production still.

Fig 1.2 : Wall mural depicting an anonymous Yiwunese trader. Research still.

Fig 1.3 : The interior of an artificial flower market, Yiwu. Production Still.

Fig 1.4 : Mannequins at work. Research Still.

Fig 2.1 : Entrance of Futian Market, District 1, Gate number 7. Production Still.

Fig 3.1 : Lucy's head mounted on my hand. Research Still.

Fig 3.2 : Wang Xinlu and Lucy in Futian Market. Research Still.

Fig 3.3 : Lucy observing the worker as he waits. Production Still.

Fig 3.4 : Architectural design, Futian Market, District 1, Gate number 7. Research Still

Fig 3.5 : Flower making, one petal at a time. Yiwu. Production Still.

Fig 3.6 : A language training session of the android. Ex Robot 2019. Production Still.

Fig 3.6 : Lucy and Blue in Binwang Park. Production Still.

Fig 4.1 : Lucy and Blue in Binwang Park, Yiwu. Production Still.

Fig 4.2 : Wang Xinlu at an artificial flower market, Yiwu. Research Still.

Fig 4.3 : Blue with an unmade doll. Research Still.

Accompanying material

A Terrible Beauty [HD, colour, 52 minutes]

Link: <https://vimeo.com/689403504>

Password: ig-atb2022

An MP4 file of the film can be accessed from the library of University of Westminster.

Prologue

About forty years ago, when I was a little girl, I came to live with my maternal grandparents in their large colonial era house in Lucknow. This three storey structure with multiple independent units, housed several families including a few of my aunts and some distant relatives. The building was called Hajra Mansion after my grandmother Hajra Begum who was named after Hajar, wife of Ibrahim and mother of Ismail. According to multiple Islamic sources, Ibrahim was commanded by God to leave Hajar and her infant son in the barren desert of present day Mecca. When her small supply of water and food ran out, a thirsty and distraught Hajar ran around, up one hill and then another, in search of help and water, even as Ismail lay on the ground. She eventually discovered Zamzam, the spring of holy water that gushed forth where Ismail had scratched the earth with his heels. The discovery of this source of water eventually led Ibrahim to rebuild the Kaaba and over time Mecca became an important site of pilgrimage.

Multiple times in a year, my grandmother would recount the story of Hajar and the venerated *Aab e Zamzam*.¹ In her deep, husky voice, and impeccable Urdu, she would bring Hajar to life. I would listen and watch her inhabit this ancient story – completely mesmerized by my grandmother’s transformation. Her eyes would well up with tears, her voice would shake and there were times when it seemed as if she was transposed to the desolate wilderness of Mecca. And somewhere under the hot sun, there was me – warm sand slipping beneath my feet; I could see Hajar, who by now had my grandmother’s wrinkled face and kind eyes, running barefoot on the hot ground from one hillock to another looking for help. My throat feels dry and parched, I let out a wail and in those brief moments of storytelling, I become the abandoned infant and she Hajar – the one who migrated.

Relatives and friends who visited Mecca would often bring back some *Aab e Zamzam* and, for as long as I can remember, there would always be a bottle of the holy water in our refrigerator – a tradition I continued. I believed *Aab e Zamzam* to be a magic elixir, the mere presence of which in the house would keep illness at bay. In the summer of 2021, when the second wave of Covid-19 devastated my family and country, I realised that my bottle of

¹ The phrase literally translates to ‘water of zamzam’ in Urdu and Persian.

Zamzam was missing, possibly the result of multiple house moves in recent years. My good luck charm, panacea of all ills had been lost – for the time being.

Hajra Mansion had been home to many people and things that had been forgotten, abandoned or left behind with promises that they would be retrieved in a near future. Older relations came for short visits and stayed on for years. Many loved ones moved across cities and countries, leaving behind bits and pieces of an earlier life in our home. The multiple storage rooms in the house contained innumerable suitcases and bags along with large teakwood boxes filled with all kinds of things – clothes, crockery, brassware, photo albums and toys to name a few. Sometimes they were labelled with shipping addresses in distant cities like Karachi, Hyderabad, London, Jeddah and Delhi. The storage rooms were my playground and the old, forsaken objects my playmates.

Everything in Hajra Mansion came before my time – except our landline telephone and the black & white television. I would often ask my grandmother what was the oldest thing in the house and she would always say: it is you. In the early years of our living together, her answer would set me off in a fit of gleeful laughter, but as I grew older I stopped asking her the question. I came to cherish the objects, which seemed to have no utilitarian, aesthetic or personal value for anyone but they were my companions and they shaped my soul. My grandmother would often playfully tell me that after she was gone, I was to be the custodian of Hajra Mansion and all its belongings, memories, people and *djinn*s.² The promise of an imminent responsibility for the entire household provided me with strange comfort. Even as a five year old, I was ready to lead the motley crew of Hajra Mansion.

The principal *djinn* of Hajra Mansion occupied the darkest, deepest storage room tucked away under a staircase on the first floor of the house. A thick wooden door with a large rusted iron lock shaped like a fish stood between me and the imagined treasures it safeguarded. When I was old enough to go exploring around the building, I remember my grandmother taking me aside and in the familiar husky voice whispering: you are to never disturb the *djinn* of this room. It was enough to scare me, growing up as I was amidst stories of ghosts, vampires, *bhoot*, *betal*, *chudail*, *saya*, *dayan*, *ruh* and other such beings who made the house creak and

² Supernatural creatures in Islamic mythology and theology with an ability to possess humans.

tremble in the night, but as I grew older it added some mystique to an otherwise sedate life in the provincial Lucknow of the 1980s.

After my grandmother's untimely demise, my aunts gave away a lot of things that had not been claimed in decades. My grandmother's secret storage room was also opened. The key had been easily located and the lock turned – smooth as butter – as if it had recently been used. The room was surprisingly clean, rather insignificant and had one trunk with things that didn't seem special either – it had some old clothes in a cloth bag, letters, scrap books, Urdu novels from the 1930s and a doll. The clothes went to the orphanage, the books to a library, an aunt took the letters and I walked off with the scrapbooks and the doll. I had recognized her immediately – delicate, hand crafted in raw silk and satin, gorgeously dressed in a traditional brocade *gharara* – this doll was the sole survivor of my benign grandmother's rage more than twenty years before I was born.

This cautionary tale is about my aunt, *khalajan* – one of my mother's five sisters – an avid reader and storyteller, connoisseur of poetry and music, collector of dolls and photographs who once, long ago, failed in her higher secondary exams. The day when the final results were announced had begun on a bad note when at breakfast my grandfather confiscated my aunt's radio for the same reasons that today's parents confiscate phones and tablets. Then she dropped ink on her school uniform and during the lunch hour someone stole her library copy of Bram Stoker's *Dracula*. Things got progressively worse and complete doom descended by late afternoon when the exam results were handed out. A dejected *khalajan* didn't realise that worse awaited her at home. When my grandmother heard the news, she blamed the dolls for my aunt's poor performance in the examinations.

A small pile of wood and coal was made in the middle of the inner courtyard, an array of dolls from my aunt's collection were added to this pyre and it is said that my grandmother set fire to it without batting an eyelid, even as *khalajan* and the rest of the siblings watched in horror. Clearly one of the dolls survived this inferno and found its way to the secret storage room – where it stayed for the next few decades. I must have been about 7 or 8 years old when I first learnt about this event, and I was certain that the tale had been embellished by my aunts. I found it hard to fathom that my mild mannered grandmother could ever hurt someone – let alone her own daughter. But as I grew older, I did realise that my beloved Hajar, woman of the Zamzam, carried within her a smouldering anger that slowly eroded her will to live. The weight

of her sadness increased as she aged and it is possible that only the *djinn* knew the contours of her sorrow.

The burning of the dolls was a cruel rite of passage for my aunt who at the age of 17 had a disproportionate attachment to her childhood dolls. Many attempts had been made to reason with her, and she not only refused to part ways with them, but also continued her elaborate pretend play with the dolls. *Khalajan* knew that one way or the other, they would be taken from her but the suddenness and brutality of the event was unexpected. Once, I asked her: were you sad when they set fire to your dolls? She replied: I still am. The dolls were my aunt's friends and confidants. They were the first audiences for the numerous poems and stories she wrote as a child and teenager.

Some years after the bonfire of her dolls she was married and she moved to live in a bigger house in a smaller city. The household was very extensive, her husband a considerate but busy man, and this provided *khalajan* with the perfect *mise en scene* to slowly retreat into placid solitude, watching her new family's daily dramas unfold from behind the cover of the latest paperback. We received weekly letters from her – all addressed to my grandmother, detailing her life in the scenic hill town, but since she lost her primary audience, she stopped making poems and stories.

Most of my memories of Hajra Mansion are based on my own experiences but many are borrowed. Some key events are so well grafted onto my psyche that even though I never witnessed them, I feel as if I was there. I clothe and colour the facts with ease and abandon. The essence of the story remains the same, just the manner of its telling changes.

Khalajan's doll became part of my menagerie of found and retrieved objects but I lost her at some point in my life – much like the bottle of *Aab e Zamzam*. Every time, I visit Hajra Mansion, I see my grandmother in the inner courtyard, sitting on a low stool, throwing the dolls into the flames. The air is so thick with smoke that no one can see the regret in her eyes. I take a step forward, tuck a strand of grey hair behind her ear, kiss a wrinkled cheek, and taste moist salt on my dry lips.

Introduction

*“He wrote, I’ve been around the world several times,
and now only banality still interests me.”*

Sans Soleil (Marker, 1983)

0.1 Research background

In a time when everything competes to be spectacular and vies for our attention, there is something strangely compelling about Chris Marker's invocation of the idea of banality, and underlying its wry and discomfiting tone is a question of profound significance: What does it mean to approach the seemingly ordinary with a sense of philosophical wonderment? This is a sentiment that has served as my informal credo in the past few years as I worked on my practice-based research project.

My project is situated in Yiwu, a city in eastern China which is home to the largest wholesale market in the world for small commodities. Popularly known as the 'Christmas Capital' of China, Yiwu manufactures nearly two-thirds of the world's Christmas goods.³ The city primarily sells items of everyday use including hardware tools, consumer electronics, jewellery, toys, stationery and homeware. It attracts traders from all parts of the world, particularly the global South, and these merchants often live in Yiwu on long-term visas, establishing tightknit communities as well as transnational networks. My early interviews with trading company executives and itinerant merchants showed me that, while the products sold in Yiwu may be the most ordinary, the market pressure to innovate and to create the latest designs and trends transformed Yiwu into a space of the future where the today of Yiwu becomes the tomorrow of Kano, Bogota or Bombay.

Given the size and scale of the market it was tempting to depict it in a spectacular manner, but after spending a long time in the factories, markets and streets of Yiwu, what struck me was the fact that it was the ordinary that was the least banal, and in the humdrum of the everyday, one could hear the prophetic cadence of a not too distant future.

If certain forms of science fiction have popularized an image of the future in the form of flying cars and lifelike androids, Yiwu offers low cost options of such futures. For a few dollars you can purchase a flying fairy made of plastic, silicon breasts or a bouquet of plastic flowers which glow in the dark. You are also as likely to share a space with mannequins and small robots as you are with traders, factory workers and shopkeepers. I was mesmerized by

³ This aspect of Yiwu is the subject of Mladen Kovacevic's documentary *Merry Christmas, Yiwu* (2020).

the deluge of phytomorphic⁴ and anthropomorphic objects in the city. These things simultaneously produced an uncanny image of living and natural entities even as they occupied the space of trite commonplace goods. Further, the surfeit of plastic that characterizes these goods was representative of exactly the kind of human consumption that has culminated in the ecological crisis of our times. In that sense Yiwu signposts many of the contradictions and paradoxes of our time, and it is the coming together of these multiple contexts that attracted me to Yiwu as a space from which to think the world and the contemporary human condition.

As I describe in detail later (Chapter 1), I was conscious early on that my research could not be about Yiwu seen through an ethnographic lens, and there was something about the confluence of travel, people, objects, stories, hopes and fears that demanded a different story. Beneath the accounts of the hustle and bustle of its market, I could perceive in Yiwu the unfolding of a quotidian future that required a philosophical account. These questions began to converge for me around the seemingly age-old question of *what does it mean to be human?*

There is clearly no single answer to the question and indeed both the question and the answer depend on the context in which the question is posed. If asked, my grandmother, Hajra Begum, would say that to be human is to be the foremost creation of God, attributing species superiority to the human. If the question were posed to a Homeric hero, it would have been indistinguishable from the question of what it means to be mortal since it was the sole prerogative of gods to be immortal. The same question raised by Kafka, through his character Gregor Samsa, once human, now insect, acquires a very different existential texture as it would not be mortality but modern alienation that propels the query. If, for Kafka, animals were a ‘debased’ form of human life, by contrast, in the *Jataka Tales*,⁵ humans learn from animals to be compassionate towards the nonhuman and thereby form a better understanding what it means to be human. And finally, if we turn to science fiction, one of the great chroniclers of the question for our times, it would entail an engagement with the blurring of the boundaries that distinguished human from machines – like those of consciousness, empathy and language among others.

⁴ A word I am using to describe artificial botanical forms such as flowers, fruits, foliage and plants.

⁵ Stories about the previous births of Gautama Buddha in both human and animal form.

Being human has always been less an empirical fact than a normative condition and historically, the privilege of being human has been unequally distributed on the basis of the colour, race, ethnicity, caste, gender, sexuality and political beliefs of actual humans (Bourke, 2013). The category of the human, far from being universal, is in fact a shape shifting entity and diverse cultural, religious, spiritual and philosophical traditions have evolved different kinds of boundaries that separate the realm of the human from the nonhuman (Bourke, 2013). While Western modernity draws a much sharper line between the two, there are other traditions with more porous boundaries that allow humans to metamorphose into animals, plants and things. While this ‘great divide’ has existed from antiquity, it is only from European enlightenment onwards that the category of the human even finds a relatively stable home in the language of autonomous personhood. While being of relatively recent provenance, the divide of human from nonhuman nonetheless established itself as a powerful narrative that placed the human at the centre of all things and as the measure of all value. The primacy accorded to the human came at a devastating cost as nature was desacralized to become a resource to be exploited, animals were no longer proximate beings but only a source of food, labour or entertainment and objects became commodities valued primarily for their monetary worth. At a global level the marriage of modernity and human progress bulldozed through forests, rivers and mountains to create a monumental crisis of sustainability and has earned for itself an apocalyptic moniker in the contemporary term Anthropocene. Belated though it may be, there is finally some acknowledgment of the hazards of an anthropocentric perspective that privileged the human at the top of the food chain.⁶ This self-questioning comes at a time when there is a renewed charge to the question of what it means to be human spurred by two primary lines of interrogation.

Firstly, there is a re-examination of many of the assumptions of the claims to the uniqueness of humans (such as language, reason, emotion and capacity for empathy) with studies from neurology, cognitive science and anthropology showing that these supposedly unique traits can be found in other species in either the same manner or with approximations of similar complexity.⁷ Whether it is the capacity of forests to think, elephants to grieve or

⁶ For an introduction to the debates within post humanism see Wolfe (2010); Braidotti (2013); Thomson & Wamberg (2022).

⁷ Examples of this may be found in the work of Kohn (2013); King (2014); Bekoff & Pierce (2018).

mice to have empathy, scholars have exposed the claim of human exceptionalism as hollow self-conceit. The story of humanity presented as a truthful biography of the world turns out to be the memoirs of an unreliable narrator.

The second crisis is a more immanent one and does not involve other species, but is instead the outcome of the developments of machines and technologies that have sought to replicate ‘exclusive’ human functions of care, cognition and creation. This is a domain that stretches from techno-biological reconfigurations of corporeal experience to the realm of artificial intelligence. From A.I. to virtual social networks and technologically assisted reproduction, there is a blurring of the line between human, animal and machine (or what is termed the “cybernetic triangle” (Pettman, 2011). Science has potentially made it possible for individual organs to be ‘grown’, for machines to understand and replicate human speech, and for sentient creatures to be cloned. It is not surprising that the question of what it means to be human has become one of the most perplexing questions of our time, prompting extreme moves at two ends of the spectrum – those who desire to safeguard the idea of the human and those who seek to abolish it altogether.

Rather than being forced into a false binary of defending the idea of the human against a hostile takeover, or nihilistically celebrating ‘the end’ of the human, my research inhabits the question of what it means to be human in the spirit of an exploration and adventure which is best undertaken with travel companions. In the case of my PhD film, *A Terrible Beauty*, the duo of Lucy and Blue, lead characters in the film, act as my travel guides. The very idea of a pair or a duo, rather than an individual, shifts us from the realm of the undivided or the in-dividual into the domain of the multiple or multiplied. *A Terrible Beauty* looks at anthropomorphic objects as copies that multiply the human.⁸ As a species, human beings have simultaneously sought to assert their singularity even as they restlessly experimented with reproducing themselves through copies. From cave paintings to photography, and from puppets and dolls to advanced robots, the human emerges as a figure of paradoxical desires – the desire to safeguard their uniqueness coupled with an impulse

⁸ Interestingly the etymological history of the word copy can be traced to the Latin word *Copia* (abundance) which is also the root of the word copious and copulate. While the word copy now designates something that is inferior on the scale of originality or authenticity, its etymological history betrays a fundamental ambivalence that exists at the heart of the human condition.

to create copies of themselves. These copies have served as replacements and safe zones from which humans have speculated on the outer edges of their own being.

World mythology is replete with interspecies couplings – humans becoming plants, people and objects being possessed by spirits – and the secular form of these speculative peregrinations materialises most acutely in science fiction, which strives to understand the nature and place of the human in a cosmos filled with the possibilities of other worlds, providing us with blueprints of the imagination to deal with the possibility that we have to cohabit the world with species, objects and technological forms other than what is already known to us (Schneider, 2009). All science fiction of the future is also social science fact of today, and my attraction to the realms of speculative and science fiction stems from their instinct not to escape from reality, but to inhabit it with imaginative resources that allow us to arrive where we started, as if for the first time.

Ridley Scott's *Blade Runner* (1982) is a perfect example of a cinematic thinking of these questions. Deckard, the replicant hunter played by Harrison Ford, is certain of his humanity at the start of the film, and his expertise in fact lies in his ability to distinguish humans from replicants (bioengineered humanoids) on the basis of their capacity to empathize. But this certainty begins to be cast in doubt when Deckard meets Rachel, a sophisticated replicant seemingly capable of emotion and empathy. He concludes that she is a replicant who believes that she is human because she has been implanted with false memories that serve as her emotional unconscious. In the director's cut of the film, the ending is ambivalent about Deckard – was he also a replicant? Rather than this being a source of anxiety, the film leaves us with the proposition that Deckard, in coming to question his own humanity, had expanded rather than shrunk the possibilities of being human.

If the capacity to think, to feel and to possess moral agency are not exclusive properties of the human but nonetheless remain traits valued by humans, we could recast the question of being human as a relational form of labour shared by a multiverse of entities and objects. This shared labour in turn produces a range of “multispecies entanglements” (Haraway, 2016) involving affective and agonistic intimacies. As I propose through this dissertation, to be human is to be human *with*, and we can forge our humanity not just through acts of exclusion but through intimate activities and exchanges with other entities. A number of questions arise: What kind of labours do these anthropomorphic entities

perform? Do they enlarge the possibilities of what it means to be human? Is it merely about acknowledging the possibility of their humanity, and what ethical and political consequences arise out of such a recognition? Does such a recognition allow us to engage with other humans differently? How does it recalibrate our relationship and our responsibility to entities whose sentience it is not for us to prejudge but for us to discover? This approach does not call on us to abandon the question of what it means to be human, but to recast it, this time with a little help from our nonhuman companions.

0.2 Research Components

My practice-based research project follows **two inter-related lines of enquiry**: firstly a substantive philosophical exploration into posthuman futures, and secondly, a formal experiment using speculative fictioning as a methodology in documentary film to address the substantive concern. In Chapter 1, I discuss how my core philosophical questions arose from my encounter with the everyday futurity of Yiwu, while in Chapter 3, I reflect on the imperatives behind developing a practice of speculative fictioning. Some of the core questions animating my research are:

- How may the site of an ordinary market create an account of everyday and immanent futures?
- How can documentary film situate itself in, and speak to such futures?
- How can speculative fictioning as a method be embedded within an observational documentary film?
- What conceptual propositions may a speculative documentary advance about posthuman futures?

In terms of **research methods**, in the early stages of my work I conducted in-depth interviews and conversations with people in China to better understand the context of Yiwu within a global trade network. My engagement with reports and secondary literature helped me to develop a knowledge base of factual information and concepts which would eventually inform my research design. I subsequently included observational filming, experimenting with

tableaux and performance, sound recording, photography, script writing and mind mapping as my research tools in order to refine my philosophical concepts and formulate a methodology to achieve my research goals. Conceptually, I veered towards fictioning as a process because I found it to be very productive as “intervention in, and augmentation of, existing reality” (O’ Sullivan & Burrows, 2019, p. 2). I also drew inspiration from Donna Haraway and Saidiya Hartman’s ideas of "speculative fabulation" (2011) and "critical fabulation" (2008, p.11) respectively, to eventually develop speculative fictioning as a research methodology.

The history of documentary film practice has partly been defined by internal conventions of how truth claims are made, and while formal experiments push the boundaries of the form that these claims can take, they nonetheless differ from fiction through what Carl Plantinga characterizes as their “assertive stance” (2005, p.107) to truth. The specific challenge for me was to formally ground speculative fictioning within documentary film practice. Fictioning can potentially come into conflict with documentary claims, and in this regard the speculative approach was important to work through these tensions. Hartman deploys speculation as a way of filling in gaps that exist in historical archives and narratives and where it becomes impossible to assert any absolute idea of truth. I approached documentary’s relationship to the future in a similar vein; the future may be apprehended not through an irrefutable truth claim but through a gesture of speculation. Speculative fictioning, I suggest, provides us a unique vantage point from which to explore the multispecies entanglements of Yiwu and to examine questions of futurity.

My **primary research material** includes digital video and sound recorded during an 8-week filming schedule in the summer of 2019 in Yiwu, Panjin and Hengdian. The spaces I filmed in include factories that produce artificial flowers, dolls, mannequins and androids and I discuss them in further detail in Chapter 3. This audio-visual material forms a substantial component of my film *A Terrible Beauty*. The voiceover narration for the film has been written as a science fiction story – developed over 2019-21 in tandem with the filming and the editing process. As part of my research process, I also conducted detailed interviews with factory owners, workers, international traders and many other itinerant inhabitants of Yiwu. While these interviews don’t form a part of the film, they contributed in shaping my understanding of Yiwu and its world of mimetic objects.

The secondary research includes my work in Yiwu over the years and consists of interviews and informal conversations with artists, filmmakers and intellectuals in China. Other materials include information from trade magazines and market reports. In Chapter 2, I also provide an overview of the conceptual universe that I draw from including art, cinema, literature and theoretical texts. While the focus of my research is mainly on anthropomorphic objects, it was important to highlight the scale and importance of the phytomorphic forms in Yiwu as they were instrumental in shaping the idea of Miracle City in *A Terrible Beauty*. The film forges a continuum between artificial flowers and androids in an attempt to capture the escalating sense of the strangeness of our contemporary time. While most people are comfortable with fake flowers, or dolls as toys for children, their unease begins to increase as we move towards the more ambivalent world of mannequins and A.I. androids. In my project I see these various kindred forms on a continuum with their difference being of degree rather than of kind.

The **research outcomes** comprise this written dissertation and my film – *A Terrible Beauty*. The two documents are companion pieces but each exists as an independent text as well. *A Terrible Beauty*, while being an experiment in film practice, is a philosophical enquiry and my dissertation, while illuminating the practice, also provides the reader with theoretical frameworks that inform the practice and the philosophical insights that one can glean from it. Many processes and practices fell by the wayside in the course of making *A Terrible Beauty*. I value each failure as it finally helped me to arrive at the form that the film is in today. As a finished work, *A Terrible Beauty* is a single channel, 52 minute film recounted by an unidentified narrator who tells the story of Lucy and Blue – intrepid time travellers to Yiwu, rendered as the fictitious Miracle City. While Lucy takes the form of a mannequin and Blue is a person, the film does not make a conscious effort to identify them as either. In the course of their mission in Miracle City, these time travelling companions encounter the universe of “Forever” goods such as forever flowers and forever children, companions and persons. The voiceover tells the audience of their journey and encounters with these intriguing forms, culminating in a finale that destabilizes taxonomic certainties.

Apart from working with a mannequin as a character, the film was shot in many spaces populated with anthropomorphic entities, and the camera often witnesses their making. Lucy the mannequin was not just my prime protagonist but also the only company I had in my apartment in Yiwu, and through my proximity to Lucy and others, I found

myself constantly returning to the question of the boundary that separated them from me. Even if I was aware of their status as nonhuman entities, I still had to contend with an uncanny claim that their presence seemed to make of me. While contemporary political narratives are populated with stories involving both the euphoric potential and perils of a future which humans will share with varied entities from self-driven cars to care-giving robots, many of these debates are framed by policy imperatives rather than any ontological or ethical concerns. In my film and dissertation I try to locate these concerns experientially and narratively, and to create a much more localized version of the future as a way of recasting the question of what it means to be human.

0.3 Circumscribing the research area

Through the course of my research process, I have been acutely aware that a project situated in the manufacturing landscape of China would have to be alert to two vital concerns: the first major issue is of the current ecological crises; the second pertains to the condition of labour in the capitalist mode of production. The two issues are intertwined and in *A Terrible Beauty*, I allude to some of these concerns. The film dwells on the multiple shades of complexity inherent within a manufacturing landscape. The ecological question manifests itself through the material nature of the objects created in the fictional Miracle City, and these “Forever” goods serve as a constant reminder of our complicity in the production of the current planetary crises. While I wanted to engage at length with the political and ethical consequences of our extractive relationship with the planet as well as with other humans and nonhumans, it would have expanded the scope of this dissertation to unwieldy proportions. I hope to build on my research and carry forward some of these concerns in subsequent work.

0.4 Original contribution to knowledge

I see my original contribution to knowledge mirroring the twin aims of my research project – the conceptual and the formal. My conceptual contribution arose from the specific experience of working with Lucy, a mannequin as one of the central characters in my film. Living with and learning to care for the inanimate object allowed me to develop the idea of

“companion copies” which is simultaneously an affective and philosophical category that will hopefully prove to be a useful contribution to the field of posthumanities and I will elaborate on the concept in Chapter 4. At a formal level, I develop and theorise speculative fictioning as a method and illustrate how it lends itself to creatively situating documentary film in a speculative future. I will discuss my contribution in detail in the Conclusion.

0.5 A minor practice and networks of affect

Before I proceed further with this dissertation, I would like to reflect on the nature of the practice during the research process. Mainstream film has largely been nested within the ‘industrial’ logic of cinema with some exceptions offering alternate ecologies. Documentary spans a range of production economies – from the more professional industry (catering to television and screens) to big budget films with international support within funding and film festival circuits. While I have traversed this terrain in the past, *A Terrible Beauty* has by no means been planned or executed in that way. I place my filmmaking practice less within the ‘industrial’ logic of cinema and describe it as a domestic craft (along with my knitting, crochet, doll-making, pickling and cooking). I have literally cooked this film and cooked a world, working out of various homes and domestic spaces that I created in the last 5 years across two continents. My everyday creative and mundane practices of living informed the intellectual bent of the project. Being human has been a reflection with plants and birds that come to rest on my balcony, along with worry dolls crafted in the first few months of the pandemic as gifts for loved ones. If I had to bring my practice into conversation with a theoretical framework, I would use ‘minor practice’ to describe the process of this research. It is with this project that finally the film has come home to me.

To describe my practice as a minor practice is to place it within a political and ethical understanding of other minor practices. Deleuze and Guattari (1985) used the term “minor literature” in their reading of Kafka to characterize forms of writing which struggle against dominant linguistic practices and whose search for a voice brings new meanings into being. In addition to the fact that the idea of the minor brings together formal and political concerns, what I find attractive about it is its orientation to a futurity. For Deleuze and Guattari, these practices resist the present because they create concepts for “a new earth, a new people” (1994, p.99). Kafka’s literary experiments, for them, were written

without a standard notion of ‘the people’, there were no readymade audiences and in some ways the writing itself had to body forth a people into being. Inspiring as it is, it is also a little daunting to imagine such a burden upon oneself, but suffice it for now to say that the intersection of form, politics and the future in ‘minor traditions’ is something that I believe is productive for future-oriented documentary to engage with.

There are many affective communities and affective labour that underwrite a film – even if it is in the ‘minor’ tradition. My initial foray into China and my continued engagement with seeing the world from the vantage point of Yiwu was sustained by friendships and solidarities which are simultaneously personal, intellectual and political. These relationships and networks spread across multiple countries also constitute for me an extension of the domestic. In her reflections on the role played by Europeans in the anti-colonial movement, Leela Gandhi (2006) turns our attention away from the usual sites of postcolonial politics and asks us to look instead at friendship as an affective relationship that emerges not from the classical conceptions of community such as race, linguistic identity or nationalism but instead emerges from a non-community based on fraternal affection. Gandhi makes a compelling case for the political importance of unlikely friendships that enabled the forging of a new language of anticolonial solidarity.

Even as the world in the last two years of the pandemic seems to have come closer by a collective anxiety about an uncertain future, it is simultaneously divided sharply on the lines of nations and definitions of friend/ enemy, insider/ outsider. In such times it has been the local and transnational friendships and solidarities that engender minor practices. While they may not mitigate anxieties about the future, they have certainly made its speculation and anticipation much less lonely.

0.6 Structure of the written dissertation

In Chapter 1 of the dissertation, I provide a background for my research with a focus on Yiwu, the site of the majority of my filming. While the range of Yiwu goods is vast, the focus of *A Terrible Beauty* is on phytomorphic and anthropomorphic forms such as flowers, dolls, mannequins and service androids. This chapter traces my intellectual and artistic journey through the city and how the nature of the space pushed me to move beyond

traditional ethnographic positions. I found the allegorical approach to be more generative for thinking through the contemporary human condition. This chapter focusses on three key aspects: it provides a spatial account of Yiwu and its place in the world; it then examines the materiality of plastic in relation to the products in Yiwu markets; and finally it focusses on the anthropomorphic objects so common in Yiwu. The quotidian and yet uncanny nature of these objects raises philosophical questions about the place of the copy in our lives, and the chapter stages a conversation between the coexistence of humans and their copies and the dilemma of authenticity. I trace this question by examining literature that has engaged with an older history of anthropomorphic replicas including puppets, dolls and mannequins.

Chapter 2 serves as a contextual review of the literature and films that act as a conceptual background to my own work. The chapter focusses on cultural forms of future making and poses questions about the relationship between documentary film and speculative futures. I begin by locating Yiwu within an older tradition of the world's fair as a space where visions of futures attain a specific public form. In contrast to the monumental nature of world exhibitions, I claim that Yiwu presents us with a not-too-distant, and a relatively quotidian image of the future in the form of banal everyday objects whose affective value can only be appreciated by shifting our focus from their monetary value to other "frames of value" (Jain, 2002, pp. 33-70). The second segment of the literature review examines the question of futures thinking. Here, I locate the endeavour of Future Studies within their intellectual and political genealogy. In contrast to traditions of futures thinking which are located within the realm of predictive science, I introduce how speculative fiction offers us images of the future which are not foreclosed but are instead multiple and open-ended. I finally turn my attention to the relationship of documentary cinema to futures and I discuss a set of films that explicitly orient documentary practice into a speculative realm. I locate my own practice within this tradition.

In Chapter 3, I describe the process of my practice-based research and the development of my methodology which I term speculative fictioning. Beginning with a discussion on the vexed history of speculation within the philosophical tradition, I move to a discussion of the various terminologies that have come to describe speculative practices and indicate my own preference for the term speculative fictioning. Using the process of filming with Lucy and Blue – mannequin and person – I contemplate how I put fictioning into practice, and I focus on the ways that the use of a mannequin as a central character

both informed the core questions in the research even as they posed specific formal challenges of representation within documentary. I then move into discussion of specific film choices that I made to blur the lines between documentary and speculative fiction. These include filming everyday life and infrastructure as though one were working with the infrastructure of a science fiction film, working in the artificial flowers market in a manner that treated these flowers with an ontological regard, and the aesthetic and conceptual choices involved in filming an everyday futurity. Finally, I discuss what it means to use a point of view of anthropomorphic objects, and how fictioning techniques enabled me to extend the speculative possibilities of documentary film.

My final chapter poses the question of how we may inhabit a world filled with replicas and copies of ourselves, and I suggest that just as the idea of a “companion species” (Haraway, 2007) is a challenging way of rethinking our relationship to other species, we need to expand the idea of the companion species to companion *copies* as a way of articulating the relational proximity that we have to anthropomorphic objects. In this chapter I develop the idea that to be human has always entailed to be human *with* – and that the conceptual difference between persons, objects, animals and things is far more tenuous than it appears to be. I draw on Donna Haraway’s productive invocation of “companionship” (2007) and ask what it may mean to think of the companionship of non-sentient objects. I finally turn to animism as a productive tradition to revisit in order to help us make sense of the politics of companionship for the future.

In the Conclusion, I map out linkages between the core concepts of my research which form the basis of my contribution to knowledge. I also outline a few possible directions that the research may take in the future.

Chapter 1

Yiwu: A journey from West Heavens to Miracle City

“Plastic plummeted us into a collective dream, a heritage of magic we thought was dead, coming to life in perplexed new forms...”

Parachute (Hume, 2014)

1.1 Introduction: A room in Chang Chun

While in Yiwu, I lived in a small run-down apartment building in Chang Chun, an area very close to Futian Market, the primary wholesale market of the city. It was one of the few residential communities where I could lease an affordable house for the duration of my research trip. Chang Chun area is partly a commercial zone and is a major hub for trade in semi-precious stones, plastic beads and imitation jewellery. Being in close proximity to Futian Market, this area is popular with internal immigrants from all over China – such as translators, accountants, sales and marketing staff, and people employed in the hospitality industry such as cooks, waiters and sex workers. My apartment comprised a small bedroom with an attached bathroom and kitchenette. It was decorated in white and gold, and smelt of fresh plastic, almost an exact replica of the apartment I had rented on one of my earlier trips to Yiwu in 2015. A set of bay windows offered a view of the residential building opposite mine and of the street and market below.



Fig 1.1 : Lucy in our room in Chang Chun. Production still.

The working day began early in Yiwu with markets opening by 8:00 am. The evenings were dedicated to leisure and entertainment activities and these kept the street rather lively well into the night. On most days, I would leave the house early to maximise on my research and filming time and in fact, for the first couple of weeks, I made serious attempts to spend as little time as possible in this super-sized Barbie doll house. I struggled with claustrophobia and longed for other smells and textures – of wood, granite, leather, metal et al. All I had was plastic

and its many iterations – polyester, polyfill, PVC and polypropylene. I also had Lucy, my mannequin. On most nights before drifting into sleep I would look at her, watching me with her plastic eyes, her bald head reflecting the glow from the street lamp just outside my window. The illuminating halo gave Lucy an ethereal charisma and with time I drew comfort from her watchful presence. She became my good luck charm on all work and leisure travels within and outside Yiwu. Her inert but consistent presence fed my imagination and I looked forward to the evenings of quiet communion with my mannequin. Some of my imaginary conversations with Lucy found their way into the script of *A Terrible Beauty*, others helped formulate critical thoughts on human-nonhuman relations. It is in this room, with Lucy as my constant companion, that I developed my film practice and the overarching conceptual framework of the project. I will now present a brief subjective account of Yiwu which will help contextualise my research. I will subsequently discuss the nature of the objects that I encountered in the markets and factories, with a special focus on phytomorphic and anthropomorphic forms, as well as the intellectual and cinematic traditions which informed my understanding of dolls, mannequins and androids.

1.2 How does Asia mean?

I will begin the account of my travel to Yiwu with the story of another journey, made many centuries ago by travellers perhaps no different from me. *Journey to the West*, a 16th century Chinese novel written by Wu Cheng'en,⁹ recounts the myth of Sun Wukong or Monkey King and his adventure filled journey to West Heavens – present day India – as a disciple of a Buddhist monk. Born from a magical rock, Monkey King is a trickster deity, gifted with numerous supernatural powers including the ability to transform himself into 72 different forms – including plants, animals and objects which he used to protect the monk and other travelling companions. The monk and his small coterie of followers, including Monkey King, travelled through modern day China, Uzbekistan, Afghanistan, Pakistan to reach the land of the Buddha, and their story is a journey of self-discovery through an encounter with difference. *Journey to the West* is an allegorical tale of the monk Xuan Zang¹⁰ of the Tang Dynasty (602-664 CE) who had travelled to India in search of sacred Buddhist scripture. This pre-modern text

⁹ I have referred to the English translation by Arthur Waley, published as *Monkey* (2016).

¹⁰ Popularly known by his Romanized name Xuanzang. His work, *The Great Tang Records on the Western Regions* provides the most detailed account of 7th century Central and South Asia.

describes the Indian subcontinent as ‘the West’ and it is to this West that the traveller and seeker Xuan Zang turns in search of spiritual knowledge and wisdom.

In contemporary philosophical thought, it is inconceivable to imagine that “the West” could be anything other than Europe and North America. Western modernity has been the overarching narrative that has framed global experience, and colonialism placed Europe as the origin and source of a universal modernity against which various countries measure their own modernity. The tale of Monkey King and his journey to West Heavens served as a reminder in my research journey of the importance of conceptually thinking through creative, intellectual and spiritual connections across civilisations and cultures which are not necessarily mediated by ‘the West’, but can at the same time converse confidently with Western thought. For the purpose of my research inquiry, I have accordingly drawn from Indian mythology as well as science and technology studies, from lyric thought and critical theory. When it comes to the pursuit of knowledge, the Monkey King taught me that one should travel far and wide, and be playful rather than puritanical in one’s philosophical odysseys, and with each attempt expand the notion of what constitutes knowledge.

The quest for an Asian perspective has important antecedents in the political and cultural sphere,¹¹ and in recent times, this has manifested itself in initiatives such as the Inter-Asia Cultural Studies Society¹² which for two decades has interrogated the question of “How does Asia mean?” (Ge, 2000). The emphasis on the question of *how*, rather than *what* does Asia mean is a self-conscious one. It alerts us to an approach that does not take for granted the pre-existence of either a geographical or cultural entity called Asia and instead invites us to think about specific circumstances in which people found it necessary to inquire into the meaning of Asia and Asianness. By this account, Asia emerges not as a singular, finished entity but as a contingent framework of meaning-making which invents and reinvents the idea of Asia through every instance of its deployment. In my research journey the question of *how*

¹¹ One of the most significant gatherings of Asian leaders took place on the eve of decolonisation, with India hosting the *Asian Relations Conference* in March-April 1947. Eight years later multiple Asian and African countries met in the famous *Bandung Conference* to articulate a political vision emerging specifically from newly decolonised countries. There were similarly numerous attempts to develop a specifically Asian perspective during the colonial period. For an overview of these see Duara (1997); Bharucha (2009); Mishra (2012); Aydin (2019).

¹² For further information on Inter-Asia Cultural Studies Society, see <http://culturalstudies.asia/about-us/>

further developed as a question of how we think *with* things as distinct from how we think *about* things.¹³

Coming as both China and India did from a history of imperial and colonial subjugation, they fashioned for themselves overlapping but distinct visions of political transformations in the second half of the 20th century. In the Indian context the project of the nation claimed the space of the new, placing its hopes on the postcolonial citizen as the harbinger of a new kind of political subject, unmarked by traditional ideas of inequality including those of gender, caste and religion (Dhareshwar, Niranjana & Sudhir, 1993). For China, the utopian manifested itself in a collective plunge into a state-driven modernization willed on by factories and production (eventually laying the foundations of its emergence as the global production superpower). Both India and China's socialist dreams would mutate in the era of liberalization and globalization with "shiny" (Josephs, 2017) new aspirations making a home for themselves amidst the ruins of socialist utopia. If the first five decades of these two nations were narrated in terms of underdevelopment, then by the end of the 20th century, the economic and industrial growth of these two Asian giants heralded their emergence as leading global players. This period also coincided with growing ecological concerns around the world (often characterized as the Anthropocene) and both countries have struggled with balancing their development models with urgent ecological imperatives. For my research project it was crucial that I understood the distinct route to modernity for India and China in a comparative manner, and could situate their contemporary connections against a longer history of socio-cultural ties.

In the past two decades, all across towns and cities in India, we have witnessed the emergence of thousands of small shops – referred to as China Bazaars. These are generally packed with low-cost household goods, of relatively decent quality, and have made a vast number of commodities available to the middle and lower income group families. In that sense, Chinese manufacturing is a significant part of both the material as well as imaginative landscape of contemporary urban India. In the course of my own work I had become fascinated with low cost toys from China, and I eventually discovered that almost all of these affordable goods were predominantly routed through one city, Yiwu. By the late 20th century, Yiwu had emerged as the primary hub for a large number of traders from across the world, and what was

¹³ In my writing I have used the terms 'thing' and 'object' interchangeably, but I am aware of the philosophical distinction and will briefly refer to the theoretical framework for thinking with 'things' in Chapter 1 of this dissertation. For a discussion on the social life of things, see Appadurai (1988).

particularly conspicuous and of interest to me were the large number of traders from India who either regularly passed through the city or had actually settled down in Yiwu.

It is pertinent to locate these developments in the context of the rather fraught relationship between India and China after the 1962 war. Marked by mutual mistrust and aggression, Indo-Chinese relationships, in most contemporary geopolitical accounts, are signalled through antagonistic accounts of conflict and occasional outbursts of low intensity militaristic conflict. But we should remember that this history is a relatively short one and it is important to bear in mind the older history of travel, exchange of ideas and trade which has existed in a civilizational sense much before the advent of modern nation states. And while this older history has been overshadowed by nation-state-centric narratives it has not been entirely displaced: a city like Yiwu is evidence that these networks that lie at a subterranean level nonetheless persist even today (Marsden, 2017). As I lived and travelled through China on multiple occasions, I often returned to the question of “How does Asia mean?” and its relevance to our times. I am convinced that there can be no singular, abstract answer, and it is only through the process of travel that questions unfold and make sense.

1.3 The Yiwu Project

I made two trips to Yiwu in 2014 and 2015 as part of a film research residency supported by West Heavens,¹⁴ an integrated cross-cultural exchange programme between China and India. Based in Shanghai, the West Heavens initiative has close ties to the Inter-Asia Cultural Studies Society and Asia Art Archive,¹⁵ and aims to foster greater intellectual and creative collaborations between the two countries. The West Heavens programme was envisaged as one that would raise pivotal questions about the contemporary world from the perspective of the global South. It was premised on the conviction that despite their geographical proximity, and in contrast with a fecund history of civilizational interaction, the modern histories of these two countries had been marked by a paucity of dialogue, caused primarily by the troubled political relationship between them. The programme, with support from leading intellectuals from India and China, stressed the need to reactivate intellectual and cultural ties, and believed that a perspective produced through such dialogue would provide a very unique vantage point into our contemporary world. Towards this end, West Heavens

¹⁴ For more information about West Heavens, see <https://westheavens.net/en/aboutusenc>

¹⁵ For more information about Asia Art Archive, see <https://aaa.org.hk/en/about>

launched *The Yiwu Project* in 2014 and invited filmmakers¹⁶ from India to respond to the socio-cultural developments in Yiwu brought about by the long-term stay of foreign traders – particularly those from the Indian subcontinent. My proposed aim at that point was to use audio-visual tools for a preliminary investigation into the social fabric of Yiwu. If Buddhism brought the shape-shifting Monkey King to India centuries ago, it was a curiosity about the shape-shifting nature of contemporary modernity and its uncertain futures that took me to Yiwu.

My initial trips were meant to explore Yiwu, to create and develop networks and build a repository of audio-visual research material. As part of *The Yiwu Project* I made two trips to Yiwu and spent approximately three and a half months in the city and travelling elsewhere in China. This culminated in a solo exhibition, *Rehearsal For A Film* (2015)¹⁷ which constituted videos, photographs, text and object installation. The show took its title from a twenty-minute video reflecting on the process of ‘making’ of objects, images and identity within the small scale logic of Yiwu. The experience and learnings from this initial work formed the basis of my PhD proposal to the University of Westminster. This was followed by another trip in 2019 for two months when I did the substantive filming for my doctoral film, *A Terrible Beauty*.

1.4 Yiwu, Miracle City

Yiwu is a county-level city under the jurisdiction of Jinhua in Zhejiang province along the east coast in China. While Yiwu is much smaller than metropolitan Tier 1 centres like Beijing, Shanghai or Shenzhen, and of less importance than the Tier 2 cities like Hangzhou, Wuhan and Chang Sha, at Tier 3, it is seen as a city of potentially robust economic growth. About two hours from Shanghai by train, Yiwu is globally the largest wholesale market for small commodities (Josephs, 2017) and it has come to play a crucial role in the last couple of decades in “globalization from below” (Mathews, Ribeiro, & Vega, 2012). Yiwu is a critical nodal point for transnational trade, but at first glance one is likely to be underwhelmed by the city, just as I was. Unlike Beijing which oozes history and wears its impressive infrastructure rather promiscuously or Shanghai whose spectacular architecture is designed to awe, Yiwu is

¹⁶ My research proposal for *The Yiwu Project* was in collaboration with Aman Sethi, writer and journalist.

¹⁷ The exhibition was on view at India Week between 5-8 October, 2015 at FRISE Kunstlerhaus Altona, Hamburg.

relatively inconspicuous and resembles any average mid-size city with little to offer by way of uniqueness. This held true of course till I reached Futian Market. Having just visited a few wholesale markets in Delhi before my departure for China, the size of the market in Yiwu was an awe-inducing experience. There seemed to be something here that did not fit in with my sense of the present. It seemed as if Futian had emerged from a future.¹⁸ I was enthralled by the place and intuited relatively early that the real challenge of Yiwu was not just how to represent it, but also how to inhabit it as a space from which one could think the world and pose questions of the human condition. The unofficial moniker “Miracle City” (coined by the business community in Yiwu) seemed to fit and it is the name that I adopted in *A Terrible Beauty* for the fictive city to which Lucy and Blue travel.



Fig 1.2 : Wall mural depicting an anonymous Yiwunese trader. Research still.

Yiwu has a long-standing culture of trade dating back many centuries when Yiwunese merchants would carry sugar chunks and other small commodities in bamboo baskets, and travel across the rural areas, exchanging them for chicken feathers. These served as cheap fertilizer for agricultural land and were also used to make dusters. ‘Sugar candy for chicken feathers’ was a trading *mantra* for Yiwu, and multiple statues and murals dot the cityscape with images of a quintessential Yiwu merchant with bamboo baskets hung on a pole. The roots of the contemporary market in Yiwu are more recent and can be traced to Deng Xiaoping’s economic reform of 1978. Yiwu became one of the first free markets, beginning with makeshift

¹⁸ I will discuss Yiwu in relation to questions of futurity in Chapter 2.

stalls set up in 1982 by the local government of the Zhejiang province. The entrepreneurship of Yiwunese businessmen has been seen as critical in Yiwu's transformation. However locals do not use the term entrepreneurship but instead use "Yiwu spirit" to explain the success of Yiwu. "Yiwu spirit is described with 12 Chinese words: qin geng hao xue, gang zheng yong wei, cheng xin bao rong, meaning diligent and studious, upright and brave, integrity and tolerance" (Chen, 2011 cited in Rui, 2018, p. 27).

Yiwu has many wholesale markets specializing in furniture, clothes, home appliances, timber, and construction materials. However, the most famous market in Yiwu is the Yiwu International Trade City, also known as China Commodity City (CCC) or more popularly as Futian Market – which is also how I refer to it. Spread over several kilometres, Futian Market is divided into five districts that hold a total of 70,000 shops selling 1.7 million different types of small commodities (Marsden, 2016, p.24). With 'new items'¹⁹ being introduced to the market every day, Futian is replete with prints of a new "silk route" map promising a great future of vibrant exchange of commodities across Europe and Asia (Frankopan, 2016). As China forges ahead with its "One Belt, One Road" strategy, the frequency of trains between Yiwu and capitals of Europe has increased and the city often makes it to the Western press as "Santa's workshop" and the "Christmas capital of the world" (Wainright, 2014). It is however important to bear in mind that a bulk of the Yiwunese transnational trade is plied via ships between China and countries of Africa and other parts of Asia. It is the emerging leadership of China in the Global South and the South-South fraternities of cities like Yiwu that calls for a nuanced understanding of transnational petty commodity trade. Ships sailing from the ports of China carry a range of low-cost items of everyday use such as toothbrushes, pencils, shoes, socks, tools, clotheslines, raincoats and tarpaulins et cetera that eventually make it to homes in villages, towns and cities of the global South. Despite its nondescript exterior, there is probably a part of Yiwu in almost every city and town in the world.

Yiwu is a fragment of the global cosmos that reflects the highly accelerated contemporaneity of our times. It offers an intriguing vantage point from which to observe the world in all its ebbs and flows. The shop-booths in Yiwu seem to be catalogues for futures, the traders are time travellers moving between their diverse presents and Yiwu. The allure of its innovative, bright, and colourful objects that set trends across the world makes traders visit

¹⁹ A self-explanatory term commonly used by traders in the markets of Yiwu as they search for 'new' products and designs.

Yiwu time and again. China is keen to establish Yiwu as a “multicultural city” (Roxburgh, 2017), which is hospitable to trade and people. It is regarded as one of the most foreigner-friendly cities in China and one can encounter people from all over the world in its streets and markets. Yiwu boasts of numerous language learning schools, packed to capacity providing lessons in Mandarin, Arabic, English, French, Turkish etc., and many traders also work as translators.

A small ‘foreign enclave’ reminiscent of Amitav Ghosh’s 19th-century Fanqui Town²⁰ has slowly come up near Futian Market. Spread over 5-6 kilometres around the market, this area hosts a majority of itinerant traders from the MENA region (Middle East and North Africa), Indian subcontinent, Central and South-east Asia. Restaurants and hotels with names like Cairo, Erbil, Delhi Durbar, Istanbul, Khorasan and Bosphorous dot the landscape. The first Arab cuisine restaurant in Yiwu, Al Maeda, set up by a few enterprising Egyptians in the 1990s, became a fulcrum for traders from all over the global South. At a 10-minute walk from my flat in Chang Chun, Al Maeda was a regular haunt for me. My first meal in the restaurant on the 2019 trip was a lavish *iftaar* for USD 15. It is here that I heard first-hand accounts of war in Syria and life in the refugee camps of Lebanon. Today the area around the restaurant is officially called the “Exotic Street” (Belguidoum & Pliez, 2015, p. 4) while informally it remains Maeda and can easily be described as the heart of the foreign enclave of Yiwu. Due to the strong Arab and Muslim presence in Yiwu, the city also attracts Hui and Uyghur Muslims from other parts of China. Perhaps it is correct to say that the foreign enclave has become “a condensed form of activity in Yiwu, a microcosm where wholesalers and new migrants interact (although they are present throughout the city)” (Belguidoum & Pliez, 2015, p. 8).

Very close to Futian Market lies India Street. Lined with grocery stores and restaurants selling Indian cuisine, along with offices of transport and shipping companies, the area is an important meeting point for businessmen from other countries of South Asia. Here, I met some of my most important sources who helped with arranging contacts and factory visits and eventually became my friends. Easy access to Maeda and India Street and the presence of a substantial number of traders conversant in English, Hindi and Urdu helped me get a nuanced understanding of the trading mechanisms within Yiwu – both formal and informal. These

²⁰ The site of the narrative in Amitav Ghosh’s novel *River of Smoke* (2012), Fanqui Town, also known as The Thirteen Factories (Saap Sam Hong) was a small strip of land used by foreigners to trade with the local Chinese in Guangzhou in the 1830s.

cosmopolitan encounters in Yiwu through a diversity in language, food, dress and habit perhaps challenge the ‘homogenous modernity’²¹ of China, even as the country emerges as the largest trader of ‘object-based homogeneity’ in the world; after all it will be the same Star of Bethlehem that will shine in Kigali, Bangalore and London during Christmas.

1.5 On the nature of things

From the very beginning of my research in Yiwu, I was certain that the city presents us with an everyday futurity, which was as ubiquitous as the objects in which it trades. Yet, these immanent futures rendered the everyday banal into an uncanny spectacular. Could I detect in these markets the abiding presence of Monkey King’s power of metamorphosis? Would I find amidst these objects, a spiritual descendant of the shape shifting simian? Did I unconsciously place this burden on Lucy?

One of the striking features of the markets in Yiwu was the surfeit of plastic objects that one encounters. This aroused my concern and my curiosity about the materiality of plastic and its place in the ordinary world. I wondered where these objects go, what economies do they serve, and what affordances do they provide? While I was acutely aware of the astounding levels of ecological hazard posed by plastic, I was equally cognizant of how valuable it was to ordinary aspirations and desires. These colourful items, destined for speedy obsolescence, posed difficult questions for me as a consumer and as a researcher. These objects, as transient as life, will probably never be placed in a museum of valuable artefacts.²² They will never be passed down generationally or treasured as family heirlooms, and one may ask what then is their value? In her work on the circulation of cheap bazaar images and the embodiment of value, Kajri Jain suggests that it might be useful to deploy an understanding of multiple “frames of value” (Jain, 2002, pp. 33-70). In calendar art, for instance, there is the aesthetic frame –

²¹ Zygmunt Bauman posited the idea of “liquid modernity” (2000) as a way of understanding the perennial flux and movement of change, and central to his idea was the contrast of liquid’s ability to adapt against the relative inflexibility of solids. The philosopher Daniel Little (2014) adapts Bauman’s metaphor of liquid and argues that the concept of liquid society has many affinities to the idea of plasticity as a conceptual trope to think about space and time.

²² For a provocative take on the role of plastic in contemporary life, see this report on *The Plastic Museum*, <https://archive.is/ZeU26>. For a poetic rumination on the transformation of plastic into ubiquitous objects of everyday use, watch *Song of Styrene* (Resnais, 1959).

between fine art and commercial art; the monetary frame – low cost and expensive; and finally there is the ethical frame – this is the affective register where pictures of gods take religious, cult and ritual value. The ethical frame interrupts the known circuits of high and low, original and copy, cheap and expensive and introduces a libidinal excess that cannot be contained by known frames of reference which tend to treat the object as a static one. Instead, by focusing on the question of circulation, Jain invites us to think of these cheap reproductions as modes of value that form “themselves as fleeting constellations between the image, other bodies or objects, and the quality, rhythm and intensity of time at a given moment” (Jain, 2002, pp. 33-70). Chinese goods similarly traverse multiple frames of value. Is Yiwu then not just a factory of plastic aspirations but also its greatest archive?



Fig 1.3 : The interior of an artificial flower market, Yiwu. Production Still.

These low-cost goods have always been described in pejorative ways, both in terms of quality but also their promotion of kitschy commodity culture with no possible inherent value. The question of value is always a tricky one as it is determined not only by the logic of the exchange value but also in terms of their utility value as far as the end-user is concerned. A toothbrush that cost INR 20.00 or USD 00.27 can still be immensely valuable as a replacement of bamboo and bristles. It were as if the value of these goods was being denied to them just because they were made of plastic and were low-cost. When one imagines for example historical objects excavated from earlier civilisations, it is very likely that a terracotta vase uncovered from the ruins of the Indus Valley civilisation was not necessarily a high-end object, and it instead served very ordinary purposes but yet it is extremely valuable today as evidence

of a civilisation and their form of life. Looking at the objects that existed in Yiwu, I began looking at them from a forensic perspective to ask the question of how a future generation may look back upon these objects to make sense of, and to reconstruct the story of the world and of various forms of life in the 21st century.²³

Of all the items I encountered in Yiwu, the most intriguing were the plethora of phytomorphic and anthropomorphic objects, lifelike replicas of natural things such as flowers, plants and people and these objects became the primary focus of my doctoral investigation. I was struck by the ubiquity of these objects and images, and the uncanny affect²⁴ they produced which questioned my own certainty about what was real and what was not, and who was and wasn't human. As I filmed in Yiwu, I was also acutely aware of how the camera's unique gaze with its ability to zoom in on specific details produced a heightened sense of this uncanniness, and I started seeing the larger landscape of manufacturing and trade through the prism of an uncanny canvas. This allowed me to move away from a descriptive curiosity framed by the dominant narratives of Yiwu as the 'Christmas capital of the world' and the plastic factory of global trade. I asked myself what was it about Yiwu that created a space for me to see these objects differently?

My initial hypothesis was that it was perhaps a question of scale and that one does not encounter mannequins or dolls anywhere else at the scale that one does in Yiwu. And while scale certainly contributed to the uniqueness of the images that I was encountering, I realised that it was not just scale, but also their omnipresence that was responsible for enabling a shift in my perspective. The commonplace blending of humans, anthropomorphic objects and artificial flora in Futian Market rendered their coexistence ordinary rather than fantastic; with time I began to look at these objects not with bewilderment, but an almost affectionate familiarity. While I was accustomed to seeing mannequins used in shop windows to display clothes and other accessories, in Yiwu it was the mannequin itself which was the commodity on sale. I saw literally thousands of mannequins spread across the markets in a way that made them an integral part of the landscape, occupying space with humans. Sharing a home with Lucy further amplified my feelings of familiarity with the anthropomorphic forms of Yiwu.

²³ For an indication on how matter may mutate in the future to create new forms of fossils see *Future Fossils, Plastic Stone*. Archived at <https://archive.md/pxljb>

²⁴ The idea of the "uncanny" (unheimlich or eerie) was developed by Sigmund Freud. Central to this theory was Freud's reading of E. T. A. Hoffman's gothic tale *The Sandman* (1816) about a man's obsession with a lifelike doll.

My small apartment became a place where we staged numerous tableaux of our imaginary encounters. When I gained confidence in Lucy's ability to perform, I staged several *mise en scenes* with her – some of which I used in *A Terrible Beauty* but most did not make it into the final version of the film.²⁵

After repeated trips through the market and the streets of Yiwu, it was not just the shopkeepers and traders who had begun to look familiar to me but equally mannequins and dolls. These objects that I saw on my regular walk through the city beckoned me to pause, acknowledge their presence, take photographs with them, chat with their owners, share a tea and snack and move on. If on the one hand Yiwu was an extremely hospitable space for an outsider like myself, I began to wonder whether I could extend the concept of cosmopolitanism to one of coexistence with the artificial flowers and dolls that preceded my presence in the city – a cosmopolitanism not only between human beings from different cultures, but between human beings and their replicas. If we are fated not to live in a pristine state of naturalness, what would it mean to cultivate an ethos of a “multispecies coexistence”? Would it enable, as Anna Tsing has suggested, the possibilities of thinking of a third nature?²⁶ I take the liberty to interpret Tsing's “third nature” (2015) to include a moment in which one becomes aware of the lively activities of all beings. Could one extend her insight to ask how traditional ideas of agency and action would have to be reimagined to include the agency of objects and things?

This question became particularly acute when I encountered markets replete with seven dollar vaginas, factories experimenting with sophisticating the linguistic skills of dolls to make them better companions and moulds that give birth to the most expressive mannequins. This enigmatic world – populated with fake nail extensions, hair wigs, breast enhancers, sex dolls, mannequins, artificial plants, flowers and fruit – opens up serious questions of how particular

²⁵ For instance, I filmed many sequences of Lucy in a mannequin warehouse where she meets her own tribe, and I speculate adopts a leadership role. I imagined the conversation she would have with the rest of the mannequins: Was Lucy a story teller like me, weaving narratives about the world outside the warehouse?

²⁶ Anna Tsing characterizes the term ‘first nature’ as a reference to the established forms of relationships within ecology and ‘second nature’ as the transformations brought about by capitalism to the environment. And finally, she uses the term ‘third nature’ to account for things that survive and emerge despite the assault of capitalism. Underlying her articulation of a ‘third nature’ is the need to think beyond a single teleological idea of an inevitable future.

forms of life intersect with and derive from the “culture of the copy” (Schwartz, 1996).²⁷ One strand of scholarship that is of immense importance to me is work that explores the nature of mimesis especially in the domain of things (Benjamin, 2008; Taussig, 1992). Schwartz’s work raises questions about the dilemma of authenticity in our lives dominated by copies. Writing about the proliferation of the copy in modernity he asks, “How expertly do the economic and aesthetic forces of our culture of the copy converge to drive originals out of sight even as we demand of our own lives visible proofs of authenticity?” (p. 212). Schwartz’s account of doubles was largely within the realm of mannequins, puppets and dolls, and while he had a prescient sense of the problem, it is unlikely that he would have been able to imagine the velocity of developments that would take place in the next twenty years with the development of artificial intelligence and robotic technology.

From the earliest times of human cave dwellers carving images of their own likeness onto rocks and cave walls to the most sophisticated robots and androids of our times, capable of replicating human speech, motion and even intelligence, the history of humanity has been characterised by a preoccupation with anthropomorphic objects and representations that allowed humans to ponder, and to make sense of themselves. Almost every civilisation shows evidence of a routine presence of dolls, puppets and other artificial beings which served a variety of functions – from the most sacred rituals to the most commonplace entertainment. Many of these objects, like their counterparts in narrative such as fairy tales and myth stories, performed an important function as carriers of messages that perhaps needed an outlet, especially if they dealt with difficult questions of personal and social relations both in the domain of public as well as private life. Difficult questions pertaining to social roles, gender identity, aggression and violence, good and evil, were narrativized through the bodies of these objects, and in that sense these objects do not merely represent social worlds or social reality, they actively participate in the making of such worlds. In that sense these objects are not things that one thinks about, rather they are things that one thinks with. From statues and dolls to mannequins and puppets, humans and their uncanny doubles have journeyed together since time immemorial to figure out what distinguishes the one from the other. If the distinction between matter and spirit rested on the distinction between the inanimate and the animate,

²⁷ I was reminded of a display of flower pots containing real natural flowers residing alongside their plastic counterparts in a remote Buddhist Monastery in Bhutan, and of the paper flowers that I burnt as offering during Qingming (ancestor festival) on a mountain in Hunan. Yiwu made me revisit these encounters not through the prism of the real and fake but through the vantage point of coexistence and cohabitation.

objects such as statues and puppets have always thrown this distinction into disarray. I turn now to a set of scholars who have raised interesting provocations about the nature of anthropomorphic objects.

Kenneth Gross, an important chronicler of these human replicas, suggests that there is a fundamental tension that underlies the relationship of humans to their inanimate copies. While seemingly devoid of an animating human spirit, objects such as statues are perplexing because of their form and function. Citing the example of post-revolutionary moments when large crowds of political actors violently tear down the statues of former leaders and politicians, Gross suggests that what we are witnessing is more than just an overthrow of a symbol of power: we are also witnessing an act that ascribes and grants power to these inanimate entities. It was as if the dethroning of a king, a coup against a military dictator or even a non-violent regime change was incomplete without the desecration of its double. When Rene Descartes confidently asserted “I think, therefore I am”, he put into place a tradition of thought that pitted mind against body, and spirit over matter. But even as Descartes represents the certitude of humans’ experience of themselves, Gross provides us with a fascinating vignette from Descartes life. The renowned philosopher allegedly travelled with a lifelike doll Francine, named after his dead daughter, and on one such sea trip, the doll horrified the sailors enough for them to throw it overboard, much to the distress of Descartes. This, for Gross is a reminder of the fact that the question of mind and matter, animate and inanimate is not as fixed as it seems. He posits that the fantasy of an inanimate version of ourselves coming to life is so consistently present in human history that it cannot be treated as a metaphor any longer, and needs to be understood instead as an essential labour of life. If life is contrasted with its other – death – then we have to constantly work at figuring out what the difference between the two is: what is living and what is dead? Can there be instances where something seems alive but is dead, and others where something seems dead but is alive? In Shakespeare’s play, *The Winter’s Tale* (1623), Hermione lives as an inert statue that comes to life only at the end of the play, while in Carlo Collodi’s *Pinocchio* (1883), Geppetto desires to transform a wooden puppet into a living, breathing boy. I sometimes wondered if Lucy would one day blink her eyes, if for nothing else but just to close them to the world that she is forced to view all the time.

Gross terms the life affirming/ life denying labour as an “instinctual mode of work” (1992, p.8) which allows us to make sense of philosophical and affective conundrums in the world. A child playing with a toy, he says, is an image of such work, and central to this equation

between the living and non-living thing is imagination. Consider the mixed impressions that emerge when one watches a child playing with toys; when one observes the whim and ruthlessness, the conviction and improvisational skill (and perhaps the occasional despair) with which a child can weave a narrative of human life around those toys. I felt a child-like enthusiasm working with Lucy and filming with other dolls and androids, wondering about my own “instinctual mode of work”.



Fig 1.4 : Mannequins at work. Research Still.

If seeing the image of mannequins had earlier brought out a different kind of liveness for me, then working with and conversing with Lucy produced yet another kind of affective intimacy which helped me understand better the discourse on the ‘thing in itself’.²⁸ In many ways Lucy belongs to the ethos of Futian Market. For me she was and still is absolutely singular and yet at the same time she is also representative of all objects in Yiwu and in the world. Lucy is homogenous as a form, perfect in her everyday banality, and unreal in her representation of the human body. As an object in a display window she is just that – a mannequin – but outside the imperative of her destiny as a shop mannequin, Lucy becomes a different thing. What was this ‘thing’ that Lucy was becoming? My effort to understand her as a subject of my research and filming led me to Marquard Smith’s work on dolls in which he examines the erotic contours

²⁸ Critical theorist Bill Brown developed *Thing Theory* (2001) deriving largely from the writings of Martin Heidegger (2001). *Thing Theory* is understood and interpreted in many ways and like all intellectual propositions, it has its blind spots. Despite this, I have found it to be particularly useful in articulating my understanding of objects and things. However, a through engagement with the philosophical nuances of the ‘thing’ is beyond the scope of my research.

of relations between men and inanimate forms such as statues, dolls, automata and artificial body-parts to understand "heterosexuality and its discontents" (2014, p.11). Smith provides a provocative reading of the erotic doll as a modern fetish, tracing the genealogy and ontology of the anthropomorphic form in modernity. Traversing through art history, visual culture and gender and sexuality studies, he develops a framework to understand "the love of and for the artificial" (2014, p.10). While the nature of my relationship with Lucy was not erotic, it had an affective charge that rendered her more than just an inert object.²⁹

Building on Smith's reading of Bill Brown, I would like to say that my film gives Lucy a context to assert herself as a thing. For Brown, things are "what is excessive in objects, as what exceeds their mere materialization as objects or their mere utilization as objects – their force as a sensuous presence or as a metaphysical presence, the magic by which objects become values, fetishes, idols, and totems" (2001, p. 5). He alerts us to the need to attend not to the "biography of things... but the ontology *in* things" by which he implies "the historical ontology congealed within objects" (2006, p. 183). We don't just think about objects, we also think with them. While, we are aware of this from the scholarship of anthropologists and philosophers, but what does it mean to be with these things as a filmmaker, to film with them?³⁰ Working with Lucy as a protagonist necessarily entailed working with Lucy as an object, as an image and as a thing all at the same time. As with flesh and blood people, so too with plastic persons, life is always complex and her status as an object, image and thing were often at loggerheads with each other. By their very nature, mannequins refuse to dissolve into the blur of generic goods and their expressive faces and eyes invited me to look at them again and again and sometimes even exchange a knowing glance. It is this dual nature – as prosaic holder of wigs, headscarves and clothes; and as objects of semblance, simulation, and fantasy (Smith, 2013, p.9) – that has marked my attraction to mannequins. Filming with a mannequin also becomes a life-affirming labour of imagination. I often wondered about the similarities between my relationship to Lucy and the relationship that puppeteers have to puppets.

If statues occupy the cusp between life and death, puppets inhabit the space between reality, dreams and fantasy. Puppets reminds us of our powers of animation and our ability to

²⁹ Jane Bennet draws our attention to the vibrant agency underlying seemingly inert matter such as dust and rubble (2010).

³⁰ Some important cinematic texts that informed my thoughts in this regard are *Junkopia* (Marker, 1981); *Superstar: The Karen Carpenter Story* (Haynes, 1987); *Gudia* (Ghosh, 1997); *Plastic Bag* (Bahrani, 2010); *Silicone Soul* (Gilbert, 2018)

transform the world of everyday ordinary objects into living things. Terming puppets as ambassador or pilgrim to human beings from the world of things, Kenneth Gross posits that the dramatic life of puppets is linked more to “the shapes of dreams and fantasy, the poetry of the unconscious, than to any realistic drama of human life. That is part of its uncanniness, that its motions and shapes have the look of things we often turn away from or put off or bury” (2011, p. 2) Gross describes this coming together of the world of ordinary objects and the theatre of puppets through the work of playwright Dennis Silk who imagined a “thing theatre” (2011, p. 29) where ordinary objects assume the central role of actors with the capacity to narrate, emote and participate in the making of stories. Dennis Silk gives us an example of a story in which a group of Japanese peasants erect a shrine to an umbrella. This story beautifully captures the possibilities of objects being divine gifts, capable of miracles that transform the ordinary into the sacred and the mundane into the magical (2008, p.73). For Silk, every object has a hidden life, and the revelation of its secrets and wisdom relies on our capacity to be attuned to the tempo and pulse of things.

Working with Lucy as a central character in the film and traversing a landscape of anthropomorphic objects and entities, I often thought of them as collectively participating in a drama of epic proportions, even if they all have small roles to play. For argument’s sake, let’s imagine a play called the Anthropocene. How could we even begin to imagine a play of this nature without involving a whole host of beings and entities other than humans, and possibly other than the natural? To assume that a play of this nature would once again have as its central protagonist the figure of the human would be to reduce the possibilities of “thing theatre” into a theatre of the absurd. My film *A Terrible Beauty* lays bare the fact that a narrative about the human condition cannot be produced without the nonhuman as co-protagonists; how such a narrative may be produced within documentary is the central question discussed in Chapter 3 (and the dissertation).

Another scholar who provides us with poignant insights into these anthropomorphic objects is Victoria Nelson (2003). She raises the stakes of what is involved by arguing that many of these objects perform a spiritual role especially in cultures in which the onset of modernity has meant a secularisation of religious experience resulting in a ‘disenchantment’ of the world. Nelson argues that the quest for transcendental self-knowledge had earlier entailed an upward movement towards a higher realm of consciousness not available in ordinary life, but with the depletion of the domain of transcendental experience in the form of spiritual

knowledge, what we see is a turn downwards (into popular modes including the grotesque, horror and science fiction) as a kind of subterranean entry into mystical questions of human existence. Nelson says this is best captured in a well-known aphorism of Jorge Luis Borges, “metaphysics is a branch of fantastic literature” (2003, p.9), and the technologies described in science fiction including spaceships, time machines etc., are, for her, not merely symbols of human progress or teleological technologies moving in a single direction forward to the future. Instead she sees them as metaphysical and narrative devices “that gives us as rationalists permission to journey to the transcendental otherworld” (p.21). In that sense, Nelson explicitly constructs a counterintuitive theory of fantastic literature and science fiction as a genre that allows us to access the oldest and most primordial bewilderments by pretending that they arise from an unknown future. She identifies a few writers, principally Franz Kafka and Bruno Schulz as 20th-century exemplars of mystical writers who use the narrative device of the grotesque to raise fundamental questions about what it means to be human. This is particularly significant since what defines the grotesque in many instances is the breach of the boundary between the human and its other, whether in the form of the insect in Kafka, or the puppet in Schulz.

Citing the example of Schulz’s well-known work, *The Street of Crocodiles*,³¹ a “phantasmagoric cosmos” (p.71) of mannequins and puppets, Nelson says that this is a world in which spirit is not privileged over matter, rather it is the force that is equally distributed across all forms of objects. The central protagonist is someone who is obsessed with the union of spirit and matter, and this obsession manifests itself in the form of dressmaker mannequins who possess a life and spirit of their own. According to Nelson, for Schulz “what we mistake for objective reality – that is, the empirical world of the senses – is always trembling on the point of disintegration” (p. 71). This world is made of paper-thin reality, and I feel that there is indeed a deeply ethical impulse underlying the thinning of reality. Nelson says that one can learn from Schulz the integral question of what it may be to care for the world in its totality, not confined by narrow human self-interest but open to the possibility of treating objects as having the capacity to feel. This question of what it may mean to feel the pain of another is rendered all the more poignant and significant if you consider Schulz’s untimely death during the German occupation of Poland in World War II, when he was shot down by a Nazi officer on the streets of Drohobych, his home town. If the Holocaust, with its horrifying tales of human

³¹ The work inspired the Brothers Quay to make the stop-motion animation titled *Street of Crocodiles* (1986)

fat being converted into soap or hair into wigs, was a story of humans being converted into things, Schulz's enigmatic tales asking us to care for things might well be a plea for humans to also treat each other with more concern and regard.

Two other scholars who extend these concerns into the contemporary domain are Adam Geczy (2017) and Anthony Ferguson (2010). While Geczy looks at the cultural history of dolls and mannequins, Ferguson focusses on sex dolls in particular. Both locate the relevance of these histories in the context of the highly technologized body of the contemporary, in which the lines between the biological and the technological are absolutely blurred. Geczy maps out a longer history of the interest in mechanised bodies and draws parallels between debates in the 18th century around the body as a machine and contemporary debates about the line between humans and machines. He also traces the history of the deployment of dolls and mannequins in art and fashion as the story of the desire of humans to overcome the limitations of their bodies to become more perfect copies of themselves. Geczy writes that the first fashion models were dolls and in fact fashion begins with a series of "inhuman objects that precede the human subject" (p. 90). The earliest 20th-century models became more "object-like", an armature for the designer, akin to frames for a painting. This culminates in the ultimate and impossible figure of desire in the form of the most successful doll in the history of toys, namely Mattel's Barbie doll which was initially sold as a fashion doll for adults. The plasticity of the Barbie universe is well deployed by Todd Haynes in his cult film *Superstar: The Karen Carpenter Story* (1987), a speculative reconstruction of the life and tragedy of the popstar. While Haynes' film uses the figure of the doll as a metaphor to "lament the social destruction of a talented woman" (Metz, 2016, pp.1-2), Aqua's popular song *Barbie Girl* (1997) makes the doll's plasticity into a desirable commodity.

I'm a Barbie girl, in the Barbie world
Life in plastic, it's fantastic
You can brush my hair, undress me everywhere
Imagination, life is your creation

Geczy argues that there is a discernible shift that one sees after the 1980s and the "ideology of the fashion garment begins to dissolve in favour of the ideology of the body. With the malleable, alterable, perfectible body, one effectively wears a body, a relationship between

biology and technology”. He terms this shift as the emergence of a new paradigm, that of “natrifacial” (2017, p.90)

Ferguson also references the history of the Barbie doll to argue that the sexualising of technology has always being a part of the history of technology. He reveals that the Barbie doll is in fact tied to the history of the first ever sex doll that was marketed widely, a 11.5-inch plastic figurine known as Bild Lilli. Mattel had bought the rights to the Lilli dolls and reinvented them as Barbie. For Ferguson, the sex doll is a particularly interesting object to think through ideas of the human as it seems to impinge on one of the most venerated realms of human experience – sexual intimacy. If reproduction has been seen as the prerequisite of biological survival, love and sexual intimacy have been identified as the source of our emotional survival. Within this matrix, dolls are seen as an abomination as they invent sexuality without the need of a human partner. Ferguson argues that there is a central tension within the history of technology – on the one hand it is seen to be distinct from the natural and the biological, and at the same time the history of technology cannot be written without an account of the ways in which dolls have been sexualised. Ferguson sees the most recent manifestation of this in the form of androidism or the technosexual (the desire to cohabit with or an attraction to an artificial partner), and the rise of numerous popular films and shows that explore the possibilities of human-machine intimacies³² are testament to the enormous transformations that are taking place in the domain of techno-mediated desire.

Understandably, these developments are a cause of anxiety for a number of people and, by and large, these new kinds of desires are pathologized as oddities and ‘unnatural’ obsessions which go against the grain of the order of nature. We live in a time in which there is an obsessive concern about what is organic and natural in every domain of our life from the food that we eat to who or what will be the workforce of tomorrow. In popular accounts, one often finds a desire tinged with nostalgia for a time when things were simpler, more ‘natural’ and less technological. Tracing the genealogy of the anthropomorphic object in the history of human culture provides us with a useful reminder that there was perhaps never a time in which we had unmediated access to the realm of the natural, and it becomes important to remind ourselves of Dominic Pettman’s wise recommendation that one must always ask new questions

³² See the filmography for a list of films and TV shows that explore the domain of human-machine intimacy.

of old technologies, even as one must ask old questions of new technologies. It is in the mimetic, malleable, ubiquitous ecology of Yiwu that these worlds meet and intersect.

1.6 On companion seals and dolls we love

Let me turn finally to a different site, cinema, where many of the questions I encountered in Yiwu have found resonances. There is by now a plethora of fiction and documentary films, as well as television programmes, which are hinged on understanding what it means to be human in a time when advanced artificial intelligence aspires to a home in a quasi-human body.³³ Of these I will briefly discuss two films in this segment that directly speak to my core questions and concerns.

Phie Ambo's remarkable documentary *Mechanical Love* (2007) brings us face to face with an imminent future that demands an articulation of "what we will choose to define as humanness in the future" (Blassnigg, 2010, pp. 73-74). While *Mechanical Love* does not push any formal boundaries as a film, using traditional interviews and simple sequences, it succeeds in drawing the viewer into the emotional life of its protagonists. The film explores the intersection of technology and affect using two parallel narratives. The first story tracks Professor Hiroshi Ishiguro, the director of the Intelligent Robotics Laboratory at Osaka University, Japan and his experiments with robots, and geminoids³⁴ in particular. The second storyline follows the introduction of Paro, a therapeutic robot designed like a baby seal in several retirement homes across Europe.

In *Mechanical Love*, we see Ishiguro and his team create a tele-operated geminoid crafted in Ishiguro's image, a 'twin' of sorts connected to the scientist via the Internet. The climax of the film is a staged experimental encounter between Ishiguro's geminoid and his young daughter. Meanwhile in Germany, an old lady becomes particularly attached to her Paro and the film enquires into the socio-affective adjustments that she makes in order to keep the robot in her life. Paro, a designated class 2 medical device in the United States of America, in

³³ It will be useful to bear in mind the increasing popularity of Sophia, a sex doll, and Samantha, a celebrity robot.

³⁴ Hiroshi Ishiguro has developed the geminoid – an android that is designed to look like a specific human. For instance, the model Geminoid H1 is a tele-operated android that can replicate the voice and head movement of Ishiguro.

its early iteration was designed as a cat but that form was rejected because people had had real experiences of cats, and while they were familiar with seals, they hadn't actually had a relationship with one! The shape and form of the seal found relatively high acceptance among the elderly residents. "When I developed the android" Ishiguro reflects in the film, "the question was what is human likeness; when I developed the geminoid, the question was what is *sonzai kan* – the human presence?" (Ambo, 2007). It is in the service android factory, where I filmed a substantial segment of *A Terrible Beauty*, that I felt an acute 'human presence', much more amplified than that I felt with Lucy. The dolls-in-the-making posed tough questions including how I would represent them; will I allow them to look back at me, the filmmaker, and at you, the audience? How plastic will I make them look or how human? I will address these issues and other related ones in Chapter 3.

Mechanical Love anticipates the future of other texts, notably *Black Mirror* (2011- 19), the iconic series created by Charlie Brooker. If the future comprises humanoids, androids, and geminoids cohabiting the world with humans, then we foresee it in Ishiguro's lab. One could say that episodes from *Black Mirror* such as "*Be Right Back*" (2013) are the realization of Ishiguro's experiments. This episode takes us into the life of Martha, the central character of the episode who is grieving the untimely demise of her partner Ash in a tragic accident. She learns about an A.I. service that can use Ash's social media profile information to create a virtual personality. Martha subscribes to the service and inputs Ash's chats, emails, and other information to help create a personality for the A.I. She also uploads photos, video and sound to help enhance the A.I.'s personality which she initially encounters only as a voice. She soon upgrades the A.I. to a robotic body that she brings home. The robot looks and sounds like Ash and carries his mediated social memory. It is responsive to all her commands and seems to be without any imperfections – and perhaps that is what leaves Martha dissatisfied. A less than human machine could not replace Ash, and Martha puts the robot away in the attic, attempting to live a life independent of the A.I.'s support. The episode ends with Martha and Ash's daughter talking to the robot in the attic on what seems like a rare and special occasion, even as Martha stands by the staircase listening to their conversation. The ambivalent end seems to suggest that the robot while not entirely human, is not entirely machine either, and still has a part to play, even if a diminished one, in the lives of Martha and her daughter.

My research and experience of filming at the service android lab confirmed my hypothesis that the contours of our relationships with androids will not remain restricted to the

realm of a mediated experience. The boundary has been breached irrevocably and, as I discuss in Chapter 4, it is time to find new ways of negotiating the terms of that relationship. Whether it is the empathy test in Ridley Scott's *Bladerunner* (1982), the plastic artificiality of intimacy in *Be Right Back* (2013), or the memory of pain in *Westworld* (2016), the question of what is needed to be human or what it means to strive for *sonzai kan* is less a question of absolute certainty than one that only makes sense in a relational context.

In her book, *On Imagination* (2017), Mary Ruefle asks:

Is a plastic fish a fish?

I don't like artificial flowers, but when they look real, I fall in love with them.

All these things live in the same house, the house of the head, and in the house of the head trouble is real.

But when I talk to my dolls, it goes away.

In the markets and streets of Yiwu, I encountered strangers, I made new friends, I also saw plastic fish and smelled the different fragrances of plastic flowers. When I was lonely or found work difficult, Lucy provided me with companionship and all these things lived in the house of my head. Perhaps my film and this dissertation are my way of making sense of the new neighbourhood of my mind that Yiwu had opened out.

Chapter 2

Contextual Review: Futures in documentary film

"It's against reason," said Filby.

"What reason?" said the Time Traveller.

The Time Machine (Wells, 1895)

2.1 Introduction

In the previous chapter, I have referred to the relationship between the spatial logic of Yiwu and a sense of futurity that it evokes. Yiwu spurred me to think about the manifold ways in which the future has been regarded as a domain of enquiry in social theory as well as in film practice. In this chapter I provide a conceptual overview of various intellectual and artistic strands that serve as the foundation of my own thought. I begin with an overview of the overlap of spatial and temporal logic of the “World’s Fair” as a way of understanding Yiwu (Jones, 2017). I then examine the intellectual and theoretical genealogy of Future Studies³⁵ and proceed to look at how this has been configured in the realm of documentary cinema. Using the example of two films, *The War Game* (Watkins, 1966) and *Dr. Strangelove* (Kubrick, 1964), I compare the different impulses that underlie documentary and fiction cinema as the backdrop upon which I locate my own practice.

2.2 A World’s Fair in Yiwu

Though Futian Market is not strictly designed as a trade fair or an exposition in a classical sense of the term, one can see in it a continuum with the visual and temporal logic of World’s Fairs and Exhibitions that were prevalent in the 19th and 20th century.³⁶ Writing in his diary on 25 July 1851, after a trip to the Great Exhibition of the Works of Industry of All Nations in London, Charles Dickens describes his experience as one of exhaustion caused by an excess of sights and things (Hetherington, 2007, p.19). The Great Exhibition³⁷ was of course one of the first industrial expositions intended to showcase the technological marvels of colonialism and industrial capitalism. The main driving force for the event was to enable Great

³⁵ For a representative sample of scholarship on the future see, Jameson (2005); Salazar et al., (2017); Bryant & Knight (2019).

³⁶ The Great Exhibition of 1851 was the predecessor of many spectacular exhibitions and expositions that followed and has been seen by scholars as a nascent example of a “society of the spectacle” (Debord, 1995).

³⁷ Also referred to as the Great Exhibition and the Crystal Palace Exhibition, the event took place in Hyde Park, London from 1 May to 15 October 1851. Over 6 million people are reported to have visited the exhibition. Central to the visual and spatial experience of the exhibition was the Crystal Palace – a structure fabricated entirely from iron and plate glass (a product introduced in the 1830s) – constructed specially for the exhibition. The Crystal Palace introduced a new logic of mass delight – utilizing display to evoke an experience of the “technological sublime” (Larkin, 2008).

Britain to stake a claim as the industrial leader of the world and to showcase its own technology. For Nick Montfort (2017), World's Fairs and Expositions provide important vantage points from which to see how visions of futures attain a specific public form. The spatializing of time is orchestrated through reviews of the latest technologies, newly discovered materials and hitherto unseen goods and objects, all of which come together to produce an untimely experience where one is literally witnessing the future to come. These spectacular exhibitions assembled the latest technologies, commodities and designs and were meant to dazzle the public with visions of the future.



Fig 2.1 : Entrance of Futian Market, District 1, Gate number 7. Production Still.

The aesthetic logic of Yiwu's plastic universe bears close resemblances to the idea of the World's Fair as a place that bodies forth a future time to come. But if the World's Fairs depended on a spectacular vision of an imminent future to come, Yiwu stages an ordinary arrangement of immanent futures that may have already arrived. Unlike these fairs and exhibitions which were temporary events held sporadically across decades, Futian market is a permanent market that operates almost 365 days a year, so if it unfolds the future, it does so in a perpetual manner. In a different register, Yiwu, while presenting us with immanent futures, renders the banal spectacular. The colourful plastic items destined for speedy obsolescence pose interesting questions for us to think of in terms of the future that they herald.

2.3 Futures thinking: a conceptual overview

From remote stars to tea leaves and animal entrails, the human impulse to predict and control the future oscillates between the most distant and the proximate, and between the sublime and the ordinary.³⁸ However, it is unlikely, going by the volume of scholarly output, that we have hitherto encountered anything close to the level of interest in the future that we see today. This is not to deny the existence of a wide range of practices and knowledge forms that were explicitly concerned with the future (particularly in the realm of the sacred) and the continuing presence of seers, prophets and astrologers is evidence of our deep-rooted need to be able to anticipate and manage futures. Subsequently, science fiction taught us that an obsession with futures is often symptomatic of anxieties and crises of the present. It is therefore understandable that the contemporary conjunction of ecological and political uncertainties precipitates a fair amount of thinking about futures.³⁹

In her book *The Future of the World* (2018), Jenny Andersson argues that the period after World War II is when we see ‘the future’ emerging as a fundamental political problem.⁴⁰ For Andersson, the philosopher who exemplifies the urgency in the post-war thought about the future is Hannah Arendt. In the aftermath of the war, Arendt felt that humanity had lost its connection to the future, and that this loss had transformed the conditions of human existence.⁴¹ The scale of human destruction in World War II and the use of the atom bomb had revealed how tenuous the compact of rationality had been, and how humanity was willing to exercise

³⁸ There exist remarkably rich traditions of thinking about ‘time’ outside of Western modernity that predominantly sees the flow of time in a teleological manner. Numerous non-Western cultures have a more cyclical understanding of time and this consequently informs their imagination of the relationship between past, present and future. Consider for instance within the Hindi language, the word *Kal* implies that which is not the present and refers both to yesterday as well as tomorrow. So, while the present *Aaj* is relatively clear, what can be a lot more confounding is the past and future. See Kaul (2021) for a survey of pre-modern traditions of thinking about time in South Asia.

³⁹ Within the worlds of art, literary and social movements there were similarly heightened periods when manifestos of futurism were written and upheavals of artistic and political thought prophesized. From Marinetti’s *Manifesto of Futurism* (1909) to other avant-garde proclamations (Rainey et al. 2009), the idea of an aesthetic avant-garde has often been indistinguishable from a claim to the future. Gabriel Rockhill for instance claims, “The aesthetic conception of the avant-garde... is oriented towards the future and founded on the artistic anticipation of a world in which politics would be transformed into a total life program...The avant-garde is here understood as the attempt to invent tangible forms and material figures for a life to come” (2004, p.66)

⁴⁰ Figures such as Alvin Toffler, the journalist and writer who appears fleetingly in this book, stand out here, and both Toffler’s *Future Shock* (1984) and John Naisbitt’s *Megatrends* (1984) popularized concepts such as “weak trends” and “unforeseens” that have since become staples of a kind of future research with strong links to the consultancy community in business and management studies.

⁴¹ Andersson focusses on Arendt’s 1961 book *Between Past and Future* (2006) to make her case.

the potential of total annihilation. For the first time in history, apocalypse had “moved from the sphere of heavenly threat” (2018, p. 32) to something which human beings could bring onto themselves thereby resulting in a desacralization of the future. With the defeat of Fascism, the idea of the future emerged as the new ideological battleground, propelling a Cold War race for the future. One of the markers of the Cold War rivalry between USA and USSR was the space race with most accounts of space exploration being underlined by a euphoric belief in technology prevailing over the unknown.

Arendt had a more pessimistic view and she saw the exploration of space not as an optimistic search for a new frontier, but a desperate act, an escape from the real world in which human beings could not bear to face their destructive nature. For Arendt therefore, to turn to the future was to return to a more sacred and mysterious image of time, and to restore a sense of hierarchy in the universe, where the future was not subsumed under the certitude of scientific knowledge. This period saw the emergence of a complex assemblage, variously called futurism, futurology, futures studies, prognostics, or future research, and these strands were composed of profoundly different claims about how to know and change the future, and through that future, the world. For Andersson, one of the consequences of the emergence of an industry of future thinking was the epistemological transformation of the future from a moral and philosophical category to an object of social sciences. The predominance of mathematicians and engineers engaged in predictive sciences in the pursuit of a reliable account of the future could all be seen as disciplinary attempts at “taming chance” through expertise (Hacking, 1990).⁴² The significance of Andersson’s historical survey lies in the manner in which she locates the variety of knowledge claims upon the world as an aspect of what she calls the “malleability of the world” (2016, p. 6). This metaphor of malleability was a particularly rich one as I navigated through the world of plastic anthropomorphic forms in the markets of Yiwu and helped me in the world-making of *A Terrible Beauty*. It also encouraged me to approach the future as a malleable force rather than a fixed one.

If we turn away from the post-war writers and their haunted claims of apocalyptic destruction in the aftermath of war, and attempt a similar survey of contemporary concerns and thinking one cannot help but hear kindred echoes of planetary destruction as the result of acute

⁴² Ian Hacking’s book, *The Taming of Chance* (1990) demonstrates the emergence of probability as a science which will lessen our reliance on deterministic accounts such as luck and chance.

ecological crises.⁴³ Within political thought as well as in aesthetic theory and practice, there is an inherent paradox and limitation between the future as an unthinkable category and one that constantly needs to be brought within the domain of the thinkable. In the face of the immense uncertainty produced by the political and environmental transformations that we have witnessed in the first two decades of the 21st century, it is understandable that there has been a rise in engagement in the question of the futures in a range of socio-cultural practices and academic disciplines. While ideas of the future have been a subject of enquiry in multiple disciplines such as physical sciences, social sciences, architecture, design, literature and cinema, what we are beginning to see is an emergence of a separate academic field of enquiry called “Futures Studies” (Slaughter, 1996). The use of the plural “futures” rather than the singular “future” is itself indicative of a need for the study of futures to be “open, pluralistic and emphasize a diversity of perspectives” (Sardar, 2010, p. 182). Ziauddin Sardar’s approach is constructive as it allows us to move beyond singular, grand narratives of the future.

Rosenberg and Harding (2005), describing the contemporary as a “boom time for the future” (p.3), contend that we are witnessing an over-determination of future imaginations, some pervasive, some fugitive, but all haunting their presents. This acceleration is paradoxically accompanied by an obsolescence producing what they refer to as “nostalgia for futures that we have already lost” (p.3). I read their formulation of the problem as symptomatic of one key difference between the 20th and the 21st century. The 20th century which saw two world wars, the emergence of postcolonial countries and eventually the end of communism was a century where historical claims from the past made perpetual claims on the present. At the start of the 21st century, we also find ourselves simultaneously in the noose-like grip of a potentially catastrophic future. The clichéd image that we have of the doomsday prophet is the fervent, poster-holding zealot declaring the “end is near”.⁴⁴ But if in the 20th century the doomsday prophet was a lonely Cassandra banished to street corners, in the 21st century, the small-scale industry of hopelessness has become a monumental enterprise. The insurance industry, hedge funds and risk management companies are all the financial beneficiaries of

⁴³ While the term “anthropocene” is used to describe a diverse configuration of phenomena and thought pertaining to our current age, the term itself has not been free of contestation. If a gloomy universalism characterizes one strand of thinkers engaging with the anthropocene, there are equally others who argue for a more localized geopolitical engagement with the term. My project, even if located within the shadows of the anthropocene, does not explicitly deal with these discursive debates, but instead attempts to cast a sideward glance at it from the perspective of practice. For a useful overview of some of the different positions see Haraway (2015); Ellis (2018); Grusin (2015); Purdy (2018); Tsing et al (2017).

⁴⁴ See a range of posters on the internet: <https://archive.is/OyfxI>. Archived on 1 January 2022.

guaranteed crisis, and it appears that speculation is indeed the primary skill set of survival and prosperity in advanced capitalism.

It is against the grain of such monumental futures that it may be productive to take a cue from seers who refused the universal knowledge of the stars in favour of the wisdom of tea leaves, and ask what an immanent view of the future looks like. Futian Market with its multitude of goods and commodities is the forebearer of futures that will reach the retail markets across the world many months later. The bouquet of Valentine roses to be sold on the streets of Mumbai in February is already on display in Yiwu in May of the previous year. Plastic, the vilified material of global destruction, in the markets of Yiwu simultaneously gives shape to an archive of ordinary aspirations and futures. How do we make sense of this paradox? How can we be cognizant of ecological concerns even as we are mindful of the fact that for a majority of the population in the world, low costs goods are the only affordable form of consumption available?

I take a cue from Anna Tsing, who while being acutely aware of the precarious ecological conditions of life, nonetheless holds out for “contingent” futures and possibilities. Tsing (2015), like Arendt, begins her enquiry in the aftermath of Hiroshima, but where Arendt turned towards the transcendental potential of the future, Tsing argues for a more immanent approach. When Hiroshima was destroyed by the atomic bomb in 1945, Tsing says, the first living thing to emerge from the blasted landscape was a Matsutake mushroom. The Matsutake wild mushroom becomes for Tsing a literal and metaphorical example of coexistence and collaborative survival in the aftermath of environmental damage. We are, Tsing claims, surrounded by “patchiness”, or a “mosaic of open-ended assemblages of entangled ways of life, with each opening further into a mosaic of temporal rhythms and spatial arcs” (Tsing, 2015, p.4). She argues that only an appreciation of the current precarity as an earth-wide condition allows us to notice this – the situation of our world. Tsing’s idea of how things “coalesce” (2015, p. viii) envisages a future where diverse people, ecology, objects and contingent phenomena come together and impact each other.

Another useful concept is that of the “shifting present” from Marc Augé’s writing on the future (2014). Augé does not see the future as a “time to come” but as a time of “conjunction” (p.1). He examines two main modalities of our relation to the future. The first one makes the future a successor to the past and the second one makes it a birth, an inauguration

of something new and it is this bipolarity that characterizes our relation to the future.⁴⁵ In the streets of Yiwu, these ideas translate into a space where a variety of languages and ethnicities brush against plastic flowers and stateless mannequins, in a common pursuit of a better future.

From the perspective of a film practitioner, in contrast to the idea of the future as a predictive science, I find appealing the idea of “future making” (Montfort, 2017) as a productive act, different from predicting and anticipating. Montfort’s emphasis on making returns us to the etymological roots of the word poetics which also referred to an ‘act of making’ – in the case of poetics, specifically to the role of language in making worlds. For Montfort the question is not about the actual possibilities of these various futures that are sought to be made, but whether the process of making them is itself revealing of different facets of life. Utopias and their invention of alternatives to the present are not necessarily perfect or even better versions of the present and many of them offer a bleak image of the future, but for Montfort what is more productive is the question of how we see the perspective from which this future has been imagined, and how the specific manner in which the future is presented provides us an insightful understanding of our present. In my research, I explore how this idea of future making can be located within a speculative impulse in documentary cinema.⁴⁶

All acts of future making are necessarily speculative in nature but where some are upfront about their speculative nature, others deny their own fictive quality via the garb of the real or the scientific. Aimee Bahng (2018) stages a conversation between two such domains when she brings together the world of speculative finance with the world of speculative fiction. Using feminist science studies to bear upon her reading of speculative fiction from the margins, Bahng demonstrates how a plural idea of the future may be reclaimed from singular dominant ones like those written by financial institutions and speculative global capital. In 1992 Francis Fukuyama advanced an audacious premise in his book *The End of History and the Last Man* (2012). Written in the aftermath of the Cold War and the collapse of communism in Eastern Europe, Fukuyama’s argument was an example of how ideas of the future are narratively

⁴⁵ Augé maps out the spectrum of fears of the future that inform political and institutional choices as well as fuel individual anxieties and uncertainties. These fears range from financial precarity, demographic changes in the world, ecological challenges and the depletion of natural resources resulting in greater inequities that everyone collectively faces. One of the questions that Augé raises is on the adequacy of existing narratives to deal with this change in scale.

⁴⁶ I will discuss speculation as a concept in detail in the next chapter.

foreclosed,⁴⁷ while Bahng's project in contrast, uses speculative fiction to deny the possibility of such foreclosures.

My preferred line of enquiry proceeds from a similar premise – how may the world of the real and the speculative be brought into a productive tension as a documentary practice so as to engender documentary films not only with a backward looking impulse to bear witness to history, but also projecting ahead in time just as speculative fiction does? I turn now to a specific aspect of this debate between the documentary film and its relationship to the future. Is the filmmaker a contemporary shaman who can see the future, and present it in its various facets? What sort of knowledge will such an approach advance?

2.4 Documentary film and futures

We can never completely know how images know and think, but what we can be sure of is that they do. As with mythology, philosophy and science, to think with cinema is to think the world from all its constitutive components – facts, mysteries, epiphanies, theories and most of all, stories. If research is traditionally cast in the language of knowledge and cinema in the language of affect, I think of image making practices as border crossings that allow us to produce affective concepts that move us by their philosophy as much as their poetry. A significant concern in my dissertation is the question of how cinema in general, and documentary films in particular, can contribute to thinking about questions of futurity and the human condition. In this regard, it would be useful to briefly lay out the overlap between speculative futures and the emergence of a cinematic imagination.⁴⁸

The 19th century witnessed a diverse range of experiments in utopian thought – both in fiction as well as in social theory. These speculative exercises were primarily place-making experiments since the idea of utopia was essentially a spatial one. But towards the end of the

⁴⁷ Fukuyama suggested that Western liberal democracies were the final form of sociocultural evolution and that the end of the Cold War and the triumph of Western liberalism signalled the end of competing visions of the future.

⁴⁸ There exists a rich body of work in contemporary art (including lens-based moving image work) that engages with ideas of futurity. However, I am restricting the scope of my research to single channel films that identify as 'documentary'. For an interesting collection on contemporary art and time, see Groom (2013).

19th century there was a rise in a new kind of speculative fiction⁴⁹ which imagined utopia not only in spatial but also in temporal terms as well. Edward Bellamy's novel *Looking Backward: 2000-1887* (1888) tells the story of a man who lived in the year 1887 and wakes up more than a century later into a socialist utopia.⁵⁰ Following the success of Bellamy's novel, less than a decade later the pioneering English science fiction writer H.G. Wells wrote his landmark work *The Time Machine* (1895)⁵¹ which popularized the concept of “time travel”. Both Bellamy and Wells inaugurated a new way of thinking about time travel, which was the result neither of a mystical nor a supernatural phenomenon; it was instead the result of technology.⁵² If utopia had hitherto entailed a visit to a different place, these novels were not about a utopian place but about a echronia (a better future), where a visit to a utopian future entailed travelling not to a different place but to a different time. But if Bellamy provided the blueprint for a perfect egalitarian future, Wells imagined a dystopic future as the logical culmination of class inequalities in the late 19th century (Williams, 2007). Incidentally Wells himself did not use the term science fiction preferring instead “fantasias of possibility” (Johnston, 2011, p. 1).

Unbeknownst to its author, the very year that *The Time Machine* came out, another kind of time machine was being demonstrated, with the Lumière brothers unveiling their cinematograph in March 1895. This invention of time travel would very rapidly be taken up by mavericks such as the stage magician George Méliès, who had been experimenting with the creation of visual worlds using innovative editing and stop motion. It would only be a matter of a few years before Méliès embarked on his *A Trip To The Moon* (1902), a film based on an H.G. Wells novel *The First Men On The Moon* (1899). If in the early years of cinematic innovation and experimentation the presence of speculative themes such as time travel and space exploration owed a significant debt to science fiction pioneers such as Wells, then it

⁴⁹ The late 19th and early 20th-century also saw the rise of science fiction writing by women authors. Mary E. B. Lane's *Mizora* (1999), Elizabeth B. Corbett's *New Amazonia: A Foretaste of the Future* (2014), Rokeya S. Hossain's *Sultana's Dream* (1988) are among many novels which presented feminist utopias and have had a significant impact on my practice of 'future making'.

⁵⁰ This book was the third largest selling book of its time and was of vital influence on the intellectual and political life in the late 19th century. It resulted in the formation of Bellamyite clubs also known as nationalist clubs because of the negative association with the word socialism (Montfort, 2017; Robertson, 2018).

⁵¹ In *The Time Machine*, the protagonist merely referred to as the “time traveller” builds a machine that allows him to travel across time. The novel is the culmination of a utopian tendency in literature and social thought in the 19th century.

⁵² It is important to note that all these utopian imaginations of the future were rather limited by way of what they excluded in terms of gender, race, and ethnicity. My interest in them lies less in the actual content of their utopias and more in their putative value as forms of future thinking.

would only be appropriate that Wells himself would repay the debt. By 1905, H.G. Wells started using filmic narratives as metaphors for his own science fiction narratives.

Keith Williams, in his book *H. G. Wells, Modernity, and the Movies* (2007), argues that the transaction between the science fiction world of Wells and the emergence of cinema were linked by a shared interest in the transformation of temporal experience. Just as Wells mechanized the idea of time travel, Williams argues, cinema also technologized the idea of the miraculous. In both cases the subjection of time to technological control meant the invention of specifically cinematic conceptions of time including the future. Macdonald and Cousins claim that the cinema remains the closest one can come to time travel. The authors make this observation in relation to the experience of watching the footage shot by the Lumière brothers and the seemingly natural presence of those who were on the screen, even though we are aware that everyone seen on the screen is already dead. Macdonald and Cousins do not really extend their insight into a discussion of documentary cinema in the rest of their book, but even in their invocation of documentary cinema as a ‘time machine’, it is primarily a machine that looks back into the past rather than forward into the future.

Hollywood and popular science fiction on the other hand have not shied away from ambitiously projecting into unknown futures – whether relatively proximate or absolutely distant. In his review of the popular Hollywood film *Back To The Future* (1985), critic Richard Schickel encapsulated many of the philosophical dimensions of our fascination with time travel in a compact sentence of folk wisdom stating “time travel is the thinking person's UFO, an improbability that nevertheless resonates with mysterious and sometimes marvellous possibilities” (quoted in Nahin, 2001, p. xvii). The fascination with time travel narratives is primarily rooted in the speculative ability to see the future, and while we often focus on the question of the future, as practitioners interested in image making it is equally important to ask what it may mean to ‘see’ the future from the perspective of the forms of seeing that documentary practices enable.

Within documentary practice there exists a range of films that deal with questions of the future.⁵³ While not comparable in size to the large corpus of work within popular narrative

⁵³ Here I would like to acknowledge my intellectual debt to Chris Marker. His films, particularly *La Jetée* (1962) and *Level 5* (1997), have nurtured my experimental instincts. I doubt if I would have made *A Terrible Beauty* in the way that it exists today had it not been for the inspiration provided by Marker's oeuvre.

cinema or science fiction literature, there is nonetheless an encouraging trend towards a more creative and critical engagement with futures thinking. I would go so far as to say that speculations on the future are way too intriguing to be left to any one particular practice or form, and it is crucial that documentary filmmakers push their practice into a thinking of – and with – futures. Documentary films have always been responsive to some of the most pressing concerns of the day, and in many ways the political and ethical impulse of documentary films has been characterized precisely by their ability to be responsive. While the tradition of documentary films exploring futures may not be as vibrant as documentaries about the past and the present, there are films – particularly those located in environmental debates - which have productively used speculative modalities to explore futures.

A useful starting point in surveying the range of approaches is to enumerate the taxonomic diversity within future-oriented documentary practices. “Documentary Futurisms”, a term coined by Cinema Politica to describe “The Next 150’ project,⁵⁴ is one of the first terms to envision the creation of a new film genre called documentary futurism. The organizers of the event were inspired by Afrofuturism, Arab futurism, Indigenous futurism, speculative fiction and non-fiction.⁵⁵ The works created under the rubric of documentary futurism deploy filmmaking approaches and contexts associated with documentary in order to imagine, speculate on and represent a “Canada of the future”. Cara Mertes,⁵⁶ associated with the Sundance Institute, promotes the development a new form of documentary termed as “docu-fu” or documentaries about the future.⁵⁷ She claims that docu-fu would be “modelling future scenarios in order to better predict and affect the outcome... It could be the human race’s time capsule to future civilizations” (Mertes, 2017). I will now discuss a few documentary films that have attempted to present their audience with varied maps of the future.

Michael Madsen’s provocative documentary, *The Visit: An Alien Encounter* (2015) envisages a future scenario where the earth is visited by aliens. The film relies on well-known

⁵⁴ *Cinema Politica* is a not-for-profit network committed to supporting alternative, independent, and radical political film and video. The deadline for submissions was 30 September 2017. My thesis does not reflect any developments on the *Cinema Politica* project after this date.

⁵⁵ Multiple ‘futurisms’ arose in the global cultural sphere as a response to the experience of imperialism, colonialism, racism and other forms of socio-political domination. They aim to de-centre hegemonic narratives, create a space for their specific traditions, value systems and experiences which had so far been denied a place in Western modernity and concomitantly the future.

⁵⁶ Cara Mertes served as the director of the Sundance Institute Documentary Film Program and Fund (2008-13).

⁵⁷ Whether any films eventually got produced under the docu-fu rubric is unclear and perhaps it is not the most significant issue.

documentary tropes of ‘expert interviews’ and ‘talking heads’ and explores the question of what it may actually mean to communicate with alien forms, assuming that they do finally arrive on Earth. The film has been described as a “speculative documentary” by film critics⁵⁸ and the same term has also been applied to research-based television programmes.⁵⁹ Like Madsen’s film, these programmes are based on scientific speculations and resemble ‘what-if’ scenarios of an epochal, end-of-the-world variety but they reveal something paradoxical at the heart of speculative documentary practices – the issue of the truth claim. While science fiction does not have the burden of asserting a truth claim, even if some of its representation is based on scientific fact, it appears as if documentary practices based on science-led research do appear to make an assertion of truth claims even if their representations are not based on established *fact* but on a scientific *probability*.

“Speculative documentary” has also been described as a “counter strategy to documentary taxidermy” by Bellinck and Dienderen. Responding to the tendency of documentary images to be beholden to a positivist paradigm, the authors see their practice as being based on “conjecture rather than knowledge” (2019, p.9) and posit documentary as a transformative agent. Citing media scholar Fatimah Rony’s idea of taxidermy, Bellinck and Dienderen accuse documentary cinema of a similar taxidermic impulse, relying on the production of abject images that freeze political possibilities rather than create new ones. It also risks converting image making into a clichéd exercise that reproduces “stereotypes and established values that are part of a cultural hegemony” (2019, p.2). They contend that a speculative approach has the potential of moving beyond a positivist framework of thinking and image making. I have found their provocation to be useful in my own efforts at developing a form that is open to the future and avoiding a taxidermic gaze that anticipates and freezes time ahead of its unfolding. Other terms to describe films situated in speculative futures

⁵⁸ Published in *Moria: Science Fiction, Horror and Fantasy Film Review* on 2 October 2015

⁵⁹ Some of these include *Last Days on Earth* (2011), *Life After People* (2010), *Outbreak: Anatomy of a Plague* (2010), *Earth 2100* (2009), *Alien Planet* (2005) and *If We Had No Moon* (1999).

include “sci-fi documentary” (Yoshida, 2016),⁶⁰ and “ethno science fiction” (Sjöberg, 2017) and finally “speculative ethnographic” film (Salazar, 2015).

Sjöberg’s and Salazar’s approaches share many conceptual similarities. Sjöberg sees ethno science fiction as a method of change which can be applied “as a sounding board for communities to watch and reflect on their imagined scenarios about the future.” (Sjöberg, 2017, p.186). Inspired by Rouchean ethno-fictions, Sjöberg devised ethno science fiction as a methodology for the anthropological film and he has used the term to describe his work, *Call Me Back* (2017). Sjöberg envisages ethno science fiction as a creative genre of ethnographic film in which the informants express their imagined future through improvisation and other forms of applied theatre and artistic practice.

Juan F. Salazar advocates the possibility of documentary as a “resource of hope” (2015, p.15). Salazar’s perceptive documentary *Nightfall on GAiA* (2015) is a “speculative ethnographic” film set in Antarctica in the year 2043. A devastating planetary event leaves Xuě Noo, an astro-biologist, in a state of solitary confinement at GAiA International Antarctic Station, East Antarctica. Cut off from the rest of her colleagues and the world, Xuě Noo explores the AI database (artificial intelligence archive database) at the station to understand the events that led to the catastrophe. Salazar filmed *Nightfall on GAiA* on location from 2011-14. He mixes this footage with archival material on Antarctica and moves between the past and the present (of AD 2043). *Nightfall on GAiA* has a “near future orientation” (Markham, 2014, p. 12) and, according to Salazar, it allows us to explore potential trajectories for the preservation of Antarctica.

⁶⁰ Yoshida describes Mauro Herce’s *Dead Slow Ahead* (2015) as a sci-fi documentary. Shot aboard a freighter called Fair Lady, the film is a slow, rhythmic contemplation of the global movement of goods and commodities. The director and a sound technician travelled for two and a half months on a ship as it transported cargo to anonymous ports around the world. The sight of goods travelling on ships makes for extremely slow images, the landscape rarely changes and it is in sharp contrast with how we encounter goods and objects in the market, how we consume them and how the idea of the global flows of consumption is usually narrated. A small toy which comes from China and finds its way into our streets may have spent 90 days aboard a ship even if it is sometimes broken within an hour of its purchase. *Dead Slow Ahead* captures these temporal dissonances and it is intriguing that it is described as a science fiction documentary in that it does not resemble a lot of science fiction which concerns itself with exploring techno-social transformations, but is able to displace the viewer’s experience of time and space, by rendering the Fair Lady as a time machine.

The diverse attempts at taxonomic novelty in naming documentary's engagement with the future is indicative of the fact that this is a domain which is very much in formation,⁶¹ and while taxonomies are useful in the setting up of boundaries, there is a danger of subsuming open-ended processes and practices into fixed forms. This is a concern I will address in later chapters as well. However, it is important to bear in mind that the differences in terminology should not distract us from the larger aim that unites these approaches, namely a political potential of documentary "to act as a modality for rendering an anticipatory futuring of socio-ecological change" (Salazar, 2015, p.44).

2.5 Macro futures, scientific speculations

There are two fault-lines in cinematic speculation that particularly interest me: the first pertains to the question of scale and the second to the overall aims of the speculative approach. It appears that documentary speculations into the future have largely been about political and environmental futures at a macro level. Thus, we have films such as *Death of a President* (2006), *Virtual JFK: Vietnam If Kennedy Had Lived* (2008) and *2016: Obama's America* (2012), which use documentary cinema as a form of speculation to explore political potentials and failed possibilities. As is evident even from the few titles that I have cited, these films tend to address the political at a large-scale level, literally beginning with the top of the political order and rarely do we encounter speculative political fictions in the domain of the local or the quotidian. The situation is not very different when we move from political cinema to environmental films. Al Gore's *An Inconvenient Truth* (2006) should be commended for popularizing the question of climate change and bringing a difficult subject from the realm of policy into the living room of ordinary people. There have of course been innumerable similar examples of environmental films that either fit within a normative order or have a pedagogic impulse of raising consciousness. While this is an undeniably important aim at a time when we encounter climate change scepticism and denial, these films have been relatively straightforward in their representational aims.

⁶¹ There has recently been an emergence of courses within film departments reflecting on documentary and futures. For example, the School of Art Institute of Chicago offers a Future Documentary class on "the world building required to imagine and immerse ourselves and others in possible universes". For more information, see *Contemporary Issues in Design: Future Documentary*. <https://archive.is/fvZHw> (Archived on 22 February 2019)

Within the genre of the environmental documentary there are a smaller set of films that are closer to the form of the speculative documentary. Prominent examples include *The Future is Wild* (2002), *It Could Happen Tomorrow* (2006), *Aftermath: Population Zero* (2008), *Life After People* (2009-10), *Earth 2100*, (2009) and *The Age of Stupid* (2009). What all these films have in common is an emphasis on scientific and factual claims leading to foreseeable and predictable futures. They tend to be epochal in scale, emphasizing the planetary future as a universal time of destruction in need of urgent redemption. In this regard, these documentaries have a lot in common with disaster films from Hollywood that presume a single future which will be the same for everyone, grafting onto the world an equality guaranteed only by common destruction. But outside of these grand narratives, rarely do we ever encounter such a flattened future of equality, for futures are also unequal, and as the lessons of natural disaster teach us, risk is unequally distributed (Beck, 1992) and the world will always become a safer place for some and more dangerous for others (Rosengarten et al, 2017). These films offer urgent and creative speculations into discourse, but the seismic scale of events and personalities in these narratives places an emphasis on an uninhabitable future (as seen from the perspective of today). Many of them serve as urgent warnings, demanding from us fundamental transformation in our lifestyles, if we are to have a future at all. This is an undeniably important role that documentary cinema should play, but as we have seen from our discussion of the diverse strands that mark the idea of Future Studies, an equally important task is to imagine the possibilities of living – not just *in* the future, but *with* the future. While sharing the concerns of many of the films I have identified, I have also been intrigued by the challenge of creating accounts of habitable, even if significantly transformed futures. As I have indicated in my discussion of the plastic universe of Yiwu, if the future has already arrived, how are we to attune ourselves to the sub-seismic and mundane everyday shifts? What documentary practices enable us to provide more multifaceted accounts of these habitable futures?

2.6 Contingent futures in *The War Game* and *Dr. Strangelove*

In this segment I look to two films to compare and contrast how fiction and documentary address the question of the future differently. *The War Game* (1965) by Peter Watkins is widely regarded as a seminal anti-nuclear war documentary. Produced by the BBC, the film presents a cold war scenario where tensions and diplomatic impasses have escalated

to a nuclear stalemate between the West and Soviet Russia.⁶² The world is on the brink of a nuclear war and a national emergency is declared in Great Britain. *The War Game* takes us to the town of Rochester where, during the course of the film, a thermonuclear bomb explodes. The film provides the viewer with *vérité* newsreel-style images of the days preceding the nuclear attack, the attack itself and the days immediately after. The film utilizes various documentary techniques – the shaky handheld camera, an authoritative voiceover by a male narrator relaying information and facts like a newsreader – all of which combine to create a documentary effect that heightens a sense of reality, reminding the audience that what they are seeing is something true. The apocalyptic unfolding of events was deemed “too horrifying” by the BBC for the film to be telecast in Great Britain for many years (Shaw, 2006, pp. 1351-1384), and it was only allowed theatrical and festival screenings, prompting Watkins to resign from the BBC in protest.

Watkins set *The War Game* in the September of 1965, even as its broadcast had been planned for the sixth of August of the same year to coincide with the twentieth anniversary of the Hiroshima bombing. This play between the time of the film and time in the film produced an eerie untimely effect ensuring an immediate connection with its first audience. Watkins approaches the aftermath of a nuclear explosion with bold speculations based on detailed scientific research including information obtained from actual bombings, information from the Nevada Desert Nuclear tests of 1954, and insights provided by members of the Civil Defence, doctors and scientists. With its “terrifying” realism and “documentary authenticity” (Rosenthal & Corner, 2005, p.119), *The War Game* intended to take its viewers into a “very near and very specific immediate future” (Goldsmith, 2006).

The Cold War years witnessed a rise in speculative fiction themed around nuclear catastrophes, and arguably one of the most well-known is Stanley Kubrick’s political satire *Dr. Strangelove or How I Learned to Stop Worrying and Love the Bomb* (1964). A nuclear attack against the USSR initiated by an insane US army brigadier sparks off a political crisis that ends with failed attempts to call back a planeload of nuclear bombs. Eventually a Doomsday Machine triggers multiple atomic bomb explosions across the world. The film closes with a range of images of mushroom clouds from the nuclear explosions against the soundtrack of

⁶² For a historical account of the fears and anxieties of the bomb experienced during the Cold War, see *Bomb Scare: The History and Future of Nuclear Weapons* (Cirincione, 2008).

Vera Lynn singing “We'll Meet Again”.⁶³ *Dr. Strangelove*, initially envisaged as a thriller, “was at once austere didactic in its demonstration of (largely invented) military codes, security procedures and chains of command, and broadly farcical in its tone” (Hoberman, 2004). Despite the fact that *Dr. Strangelove* was a box-office success, the publicity department at Columbia Pictures was not sure of the political aims of the film and felt the need to clarify that it was certainly not ‘anti-U. S. military’.⁶⁴ The film was nominated for the Academy award and won the BAFTA for the Best British Film but unlike *The War Game*, its apocalyptic, imminent end of the world scenario elicited conversation and debate but not censorship.

These films stage two cinematic visions of futures that were similar in their calamitous prophecies. In hindsight, one could say that *Dr. Strangelove* should be read as the unofficial prequel to *The War Game*. While the former ends with a montage of nuclear explosions, the latter enters the eye of the storm and carries the story forward by depicting the aftermath of a nuclear attack. Given the similarity of the controversial terrain that both these films were traversing, what is it that accounts for the differential reception of these two films? It is my contention that it was the documentary impulse of *The War Game* that made it unpalatable for broadcast on primetime television, a medium perceived as more intimate and family oriented than narrative cinema. It also raises the question of how we think about the relationship between the documentary impulse and its speculations of the future as a specific political and social strategy.

2.7 The documentary impulse

In their account of the use of film and photography in diverse knowledge production enterprises in the 20th century, Gregg Mitman and Kelley Wilder (2016) contend that it is impossible to imagine the 20th century without the mediation of film and photography as the omnipresent technological witness of human experience. Whether it is anthropology, science, law or indeed any domain of human knowledge, the photographic image brought about a paradigm shift through its generation of new types of records, its transformation of interactions

⁶³ Made famous by Vera Lynn during the Second World War, this 1939 song was included in the package of music and programmes held in twenty underground radio stations of the BBC's Wartime Broadcasting Service (WTBS), designed to provide public information and morale boosting broadcasts for 100 days after a nuclear attack.

⁶⁴ The Columbia Pictures publicity department cited in *The Encyclopaedia of Stanley Kubrick: From Day of the Fight to Eyes Wide Shut* (Phillips & Hill, 2002).

among scientists and their subjects and the very construction and meaning of the archive. They argue that the emergence of the “documentary impulse” in the late 19th century combined “the power of science and industry with a particularly utopian (and often imperialistic) belief in the capacity of photography and film to visually capture the world, order it, and render it useful for future generations” (2016, p. 1).

The “documentary impulse” for them was a natural corollary of the popularity of the printing press in Europe. Images of maps, tables, architectural and other drawings – botanical, geographical and anatomical – “acquired a new scientific, that is an evidentiary, force” (Winston, 1993, pp. 37-38). From the moment of its birth, photography had a dual character – as a medium of artistic expression and as a powerful scientific tool – and Daguerre promoted his invention on both fronts (Sandler, 2002). It established its legitimacy through close association with key scientific ideas and practices such as objectivity, observation, archiving and experimentation. The photographic image promised an accurate, objective and reliable representation of the real. Accounts of photography were often ecstatic, describing it as mechanical and so indefatigable, indiscriminate and therefore objective. It was therefore understandable that photography and film would be grafted onto the very foundations of emerging human sciences (history, anthropology, archaeology, geography, art history), which were in search of scientific authority and legitimacy.

The history of cinema manifests a similar trajectory where the predominant use of the camera in the early history of cinema had little to do with what we now understand as narrative cinema. Describing the decade after the invention of cinema by the Lumière brothers as cinema's infatuation with reality, MacDonald and Cousins note that until as late as 1903, seventy-five per cent of films that were produced were actualities or recordings of actual events.⁶⁵ This idea of the image as the thing itself or the image as self-evident fact would soon give way to more complex and sophisticated ways of telling stories. The increased availability of silver nitrate film and developments in the art of editing resulted in the emergence of more structured narratives which would eventually displace the pleasure of the fact with the pleasure of fiction. But rather than seeing this as an act of displacement we could understand it better as an act of relocation - with the domain of the visual fact moving away from its domination of cinematic form in general to its allocation into the realm of documentary cinema.

⁶⁵ See Grainge et al (2007); Gunning (2006)

One of the effects of carving out a terrain called documentary was to draw a line between non-fiction and fiction cinema. A classic example can be seen in Jean Rouch's iteration of the binary when he says, "Cinema, art of the double, represents a transition from the real world to the world of the imaginary, while ethnography, the study of other peoples' systems of thought, involves a permanent criss-crossing from one conceptual universe to another, a form of acrobatic gymnastics, in which losing your footing is the least of the risks" (cited in Henley, 2010, p. 255). But this binary has been at worst absolutely false and at best absolutely fragile from the start. Merely because it is fiction does not mean that there are no substantive effects that arise as a result. Trinh T. Minh-ha goes a step further when she says that, "there is no such thing as documentary - whether the term designates a category of material, a genre, an approach or a set of techniques" (Minh-ha, 1993, p. 90). Following Sean Cubitt, one could argue for a 'documentary effect' produced more by the idea of documentary as a verb rather than documentary as a noun (Cubitt, 2005). In a similar vein, John Corner has called documentary an "unstable" category and believes that the term is safer to use as an adjective, than a noun (Corner, 2002, p. 258).

From its initial moorings in so called factual documentation, documentary film has productively mutated into several forms such as docudrama, mockumentary and docu-fiction amongst others. It found siblings in nonfiction and experimental film and flourished as a largely amorphous form even under the shadow of mainstream entertainment-driven film industries.⁶⁶ Within film practice and amongst scholars, there has been a persistent debate on what constitutes documentary, whether there are any essential properties that distinguish a documentary from other films and what would be the outer boundaries of documentary film.⁶⁷ Conflicts over the drawing of boundaries has never just been a matter of petty geography or turf control in the domain of creative practice and critical thought. Instead these debates constitute some of the sharpest divides, and often in these battles terms that had an extremely contingent beginning end up solidifying, and every once in a while fossilizing, what they sought to describe.⁶⁸ As with any other expressive medium, the inherent ontological instability of the medium pushes its own possibilities; the various forms that have emerged are a good

⁶⁶ The film industry in India, primarily based out of Mumbai is the largest film industry in terms of film production, with an annual output of 1,986 feature films in 2017. See <https://en.wikipedia.org/wiki/Bollywood>

⁶⁷ For a useful overview of primary writings on the history, nature and form of documentary see Stallabrass (2013)

⁶⁸ I will return to this debate in Chapter 3.

indication of the diversity of concerns, approaches and forms that collectively constitute documentary practice.

Within this debate a crucial question pertains to the relationship of documentary to time. There are a wealth of films, materials and debates on the relationship of documentary cinema to history, to memory and to the documented past. In contrast with the significant corpus of work on documentary film's relationship to the past and present, there is comparatively less work done on documentary's relationship to the future. An enquiry of this nature is of course crucially linked to many of the foundational questions associated with documentary debates, since it forces us to revisit many of the classical questions of documentary cinema including the question of realism, facticity, and authenticity. My practice-based research project builds on work and scholarship that focuses on future-oriented documentary practices and theory. In particular my project, following the work of Donna Haraway, steers the conversation towards science fiction and speculative fiction as methods by which documentary can engage the question of the future differently. In the following chapter I will discuss in detail the manner in which I have deployed these ideas in my film.

Chapter 3

Research methodology: Speculative fictioning in *A Terrible Beauty*

If I could have said it non-metaphorically, I would not have written all these words, this novel; and Genly Ai would never have sat down at my desk and used up my ink and typewriter ribbon in informing me, and you, rather solemnly, that the truth is a matter of the imagination.

The Left Hand of Darkness (Le Guin, 2002, p 17.7 / 481)

3.1 Introduction

My film *A Terrible Beauty* is the key outcome of my practice-based research in Yiwu. While my film exists as an independent work, this dissertation is an attempt at writing with the practice, contextualizing it and producing a discursive framework for my methodology and findings. While I have used a “bricolage” of methods (Gray & Malins, 2016, p. 74) in my research, in this chapter I will focus on a few that shaped my practice. One of my key research questions asks how documentary film may situate itself within the future, and in this chapter, I demonstrate how speculative fictioning enabled me to achieve this. Further, I provide a background for the conceptual underpinnings of speculative fictioning as a research methodology and how ideas of “fabulation” (Haraway, 2011; Hartman, 2008) have shaped my practice. My methodology relied on thinking and filming with anthropomorphic and phytomorphic objects, and utilizing different production sites such as factories and research laboratories as infrastructure to stage a quotidian futurity. The bringing together of the two protagonists Lucy and Blue laid the foundation for the core concept (“companion copies”) that the project develops which I will discuss in detail in Chapter 4.

3.2 The many fictions of documentary

In the previous chapter, I discussed the various ways in which representations, projections and imaginations of futures have intersected with documentary film practice. Many of these involve an interplay between conventional ideas of documentary and narrative fiction. Over the years, numerous terminologies such as docufiction, ethnofiction, docudrama, dramaturgy and mockumentary among others have been deployed by film practitioners and scholars to describe the multiple registers of this encounter. The existence of such a plethora of terms to describe this blending is indicative of the multifarious and open-ended nature of the terrain, which has in turn prompted film scholars to develop a taxonomical system to account for the differences between these approaches.⁶⁹ While taxonomical precision may help in demarcating and clarifying areas of practice, it is always a fraught endeavour that runs the

⁶⁹ Rhodes and Springer (2006) for instance try to make sense of this diversity through an algorithmic approach, dividing practice on the basis of the interaction between four vectors (documentary form, documentary content, fictional form, fictional content), to arrive at neat but simplistic categories. For example: documentary form + documentary content = documentary, fictional form + documentary content = docudrama.

risk of boxing practices into watertight compartments that impede rather than enable porosities within practice. Rather than being weighed down by a definitional precision of what one's practice is, I feel it might serve me better to wear these definitions a little lightly, using them as placeholders rather than permanent homes.⁷⁰

Let us acknowledge instead that the central concern underlying these definitional misadventures remains a pertinent one, namely what distinguishes documentary film from other cinematic forms – primarily narrative fiction? This is a productive line of inquiry as it allows us to think through the specific affordances and constraints of what it means to locate oneself within documentary practice. Paul Ward asserts that documentary “makes assertions or truth claims about the real world or people in that world” (2006, pp. 8), and while Lucy and Blue are fictitious characters, I nonetheless felt an affinity towards Ward's claim and I regard *A Terrible Beauty* to be advancing propositions about the real world. While experimenting with speculative fictioning as a methodology that was integral to my research, I have had to contend with the question of what makes my film a documentary and why it is not just a work of straightforward fiction?⁷¹ If the traditional fault line between documentary and fiction has existed on the grounds of reality, how exactly does this play out in documentary practices that self-consciously include fictive elements? To paraphrase Ilona Hongisto (2015), documentary, in contrast to fiction film, entails the continuation of the world beyond the frame of the film. Rather than subsume documentary within the logic of the representation of reality, Hongisto suggests that documentaries can be seen as experiments in the real that do not just represent the real but also have the capacity of shaping such reality. It may therefore be more productive, she suggests, to ask not what documentary is, but what it can do, and the three capacities of documentary that she charts out include imagination, fabulation and affection. All three emerge from an immanent logic of documentary practice (the recording, observation and witnessing of reality), but inherent in these practices are capacities to imagine, to fabulate and to create. For Hongisto, this approach takes us beyond the impasse of definitional impulses and unsettles

⁷⁰ Juhasz and Lebow usefully summarize this in *A Companion to Contemporary Documentary* (2015, p.1): we accept what has become a commonplace within the field of documentary studies: that documentary defies definition...Our anthology does not attempt to distinguish documentary from other types of film, or fetishize the search for its elusive origins, defining characteristics, or great auteurs. Rather, we dedicate this contribution to those documentaries, scholars, and artists who use its many forms out of a passionate commitment to and direct engagement with the lived world, just as we hope that this anthology's production and reception can be part of that particular documentary tradition.

⁷¹ I was asked this question at a preview screening (for a limited audience) of the rough cut of *A Terrible Beauty* in New Delhi in October 2021.

documentary film's idea of what lies inside and outside of the frame. The narrative, cinematic and aesthetic frame of documentary renders a world into being rather than taking the existence of such a world at face value. In this account, documentary practice emerges as a set of mediating practices which may rely on diverse logics ranging from realism to fabulation. It is in the terrain of experiments with hybrid forms (for instance between reality and fiction) that we see some of the most interesting innovations that redefine and recalibrate the relationship between documentary and reality. Ultimately, the point is not to accept reality unquestioningly, nor to nihilistically deny its possibilities; rather, as Roy Bhaskar suggests, it is to reclaim it as one does lost property.⁷² And having reclaimed it, what does one do with it? For Bhaskar, it should "be used, nurtured and valued in an ecologically sustainable and humane way for human emancipation, happiness and flourishing" (1991, p.144). What emerges in this formulation is less a formal question (what counts as real?), and more an ethical one (how may material from the real world be put to use in a responsible manner?). This question has been foremost on my mind, and in my project, and I have often pondered not just about how my practice contributes to knowledge, but also whether it can sincerely attempt to say something about the philosophical and ethical predicaments of being human in a posthuman world.

One can hear echoes of this debate in the domain of anthropology which has similarly been concerned with questions of representation, reality and the mediating role of the anthropologist as witness and writer. In an interesting text that brings together his field notes as well as drawings, Michael Taussig highlights the question of sincerity⁷³ by titling his book *I swear I saw this: Drawings in Fieldwork Notebooks, Namely My Own* (2011). It is simultaneously an earnest declaration of a truth claim ("I swear") even as the very form (drawings as opposed to photographs) renders it impossible to make claims of an absolute nature. No drawing, no matter how skilfully or sincerely done, can be a perfect reproduction of what was seen. Drawings are after all, perceptual reconstructions of a fact, an object or a phenomenon. Taussig's appeal to the truth can therefore be better understood as a testament to his perceptual authenticity and sincerity rather than some objective idea of a reality that can be forensically verified. In *A Terrible Beauty*, Yiwu serves as the context through which I developed some of my abstract conceptual questions, but the film itself is not about Yiwu or even China per se. And yet it is a fact that the people and spaces in which I shot the film

⁷² I draw from Tony Dowmunt's thesis *A Whited Sepulchre* (2009) to develop this argument.

⁷³ For an in-depth discussion on "sincerity" within documentary practice, see Dowmunt (2009)

continue, as Hongisto has argued, to exist after the frame of the film. What I have remained true to are the perceptual and conceptual insights that I gleaned from being in Yiwu and, in that sense, even though my film is set in an indeterminate space in the future, I can, like Taussig, assert I swear I saw this. And it is to my method of seeing and making visible that I now turn.

3.3 Thinking with Lucy and Blue

I had envisaged a plastic mannequin playing a principal character in my film relatively early on in the research process. That she would be called Lucy and would acquire Blue as a co-traveller were however developments that gradually emerged in the process of filming. *A Terrible Beauty* opens with Lucy and Blue, the two principal characters of the film, standing on the terrace of a high-rise building looking down at the city before them. The voiceover by an unidentified narrator establishes that they are time travellers and that it is through their perspective that the viewer will experience the cinematic narrative of *A Terrible Beauty*. Lucy comes in the recognizable form of a shop mannequin, while Blue is a person or a cyborg in Haraway's sense of the term, a "creature of social reality as well as a creature of fiction" (Haraway, 1996). Lucy and Blue may not be kin but they are certainly kindred in their ambivalent relationship to each other – they embody the conundrums of our contemporary era where machines strive to be more and more human-like even as human life has been radically altered by the technological. In this section, I reflect on how Lucy and Blue became the pivot around which the film is structured and through whom the central premise of *A Terrible Beauty* is expressed.

i. Becoming Lucy

While filming for an earlier work, *Rehearsal for a Film* (2015), I had spent considerable time in wholesale mannequin stores photographing all kinds of mannequins – from the basic plastic ones to the more elaborate, customized ones crafted in wood and cloth. I photographed them obsessively – as if the more closely I looked at them, the more likely they were to start talking back to me. Of course the mannequins never spoke but once I began studying my photographs, I realized that, in its photographic image, the mannequin had transcended its object-ness. A latent vitalism was bodied forth by its image and like Pris, the android in *Blade Runner* (1982), the mannequins had come to life by escaping the confines of the shop

window.⁷⁴ As an image seen outside of the display window, the photograph of the mannequin seemed to have a greater affective charge than the mannequin as an object. It was with this productive tension between the mannequin as an object in the display window, the mannequin as an object outside the display window and the mannequin as a digital image, that I started thinking of a film structured around a mannequin to capture the intimacy and friction between human-nonhuman, organic-synthetic.



Fig 3.1 : Lucy’s head mounted on my hand. Research Still.

The mannequin was the only ‘fiction’ that I had accounted for before I began the process of filming *A Terrible Beauty*. I bought Lucy from a wholesale mannequin supplier Xei Fu, an entrepreneur from An Hui province – one amongst a million Chinese migrants in Yiwu. Xei Fu and her husband own a company that supplies mannequins to businesses all over Asia and Eastern Europe. They have an eight-year-old daughter who lives with Xei Fu’s mother in a different province. Xei Fu’s shop was in Chang Chun, a short walk from my apartment. She eventually became a source for the many contacts I made in the mannequin trade – including with the owners of the factory where parts of *A Terrible Beauty* have been filmed. Xei Fu’s English and professional name is Lucy.

Lucy, the mannequin, was created in a small factory on the outskirts of Yiwu in 2018. She is a low-cost, plastic mannequin produced for the Asian market and was available on

⁷⁴ Cindy Sherman’s work with mannequins and dolls has been a source of inspiration for my work with Lucy.

amazon.co.in till January 2020. I had scouted the markets in Yiwu for a mannequin that would suit my production requirements – in terms of size and weight specifications. Lucy is relatively flat-chested and as close to being brown as I could find for under \$30. Lucy is also one of the few mannequins in the wholesale market who stood straight instead of striking up a pose with either her hands or legs. She is lightweight and relatively easy to assemble. I bought a stroller bag to carry Lucy around, but in situations where I couldn't carry the entire body, I took Lucy's head, my hand serving as a neck support for the mannequin. This coming together of my hand and Lucy's head brought her closer to the form of a puppet: it gave her more flexibility and expression. I began taking selfies of Lucy and me, and while this was formally interesting, I realized it drew more attention from people in public spaces because they saw it as our joint performance and it also restricted me as a camera person. I continued taking selfies with Lucy, using the form of the personalized photograph to familiarize myself with her but eventually used my DSLR with a tripod for filming.

As I travelled through the city with Lucy as my constant companion, I began to see her not as a generic mannequin but as a unique and singular being. I could distinguish her from other mannequins that I encountered and I gradually developed an affinity and affection for her. Sharing a room and having her as a watchful companion in relatively unfamiliar surroundings also helped in bonding with her. Sometimes, while filming, I would find myself feeling annoyed with Lucy's rigidity, her 'acting' skills often frustrated me even as I would unwittingly feel protective of her if threatened by rain or dust or if onlookers stared at her. After shoots she was often my only companion and I discovered in her an incredible capacity to listen and – I imagined – perhaps even to understand and empathize.

As an object, Lucy came to stand in for all the anthropomorphic forms that I encountered in Yiwu and I also imagined her to be the caretaker of all the plastic gardens in Miracle City. I was constantly aware that Lucy would outlive me and my film, and I wondered, if she could speak, whether she would lament, like the bag in Ramin Bahrani's film *Plastic Bag* (2009), "I wish you had created me so that I could die". Perhaps Lucy will never die – or

fondness for the mannequin from the moment we purchased her. Wang Xinlu and I would often speculate a lifeworld for Lucy and create fantastical narrative plots with her as centre stage. These often bordered on the bizarre but helped us adapt to Lucy and see her as more than just a film prop.⁷⁶ Wang Xinlu would often walk into my frame to set up Lucy or fix her position, and seeing them together through the camera lens made me realise how lonely Lucy was as a character. I yearned for her to have a co-traveller, somebody to offset her inert presence. I decided to have a test shoot with Lucy and Wang Xinlu to explore the possible ‘chemistry’ between them. I asked Wang Xinlu to emulate Lucy, to be like a static object, to forget breathing, to feel like a thing and not a person. Through my camera lens, I saw Wang Xinlu transform and become Blue. They complemented each other, and their togetherness created a more dynamic image and destabilized each other’s *status quo* in the frame. I subsequently filmed multiple tableaux with them and a few made it into the final version of the film.



Fig 3.2 : Wang Xinlu and Lucy in Futian Market. Research Still.

This experiment became a crucial turning point in the filmmaking process. From that day Wang Xinlu led a dual life. She was a translator and a Yiwunese when behind the camera

⁷⁶ I was more adventurous in my filming with Lucy in the early days of the production schedule and would carry her to public spaces like parks, main roads, footbridges et cetera. This changed on 4 June 2019 when I was stopped from filming at the Yiwu railway station by security. This had never happened to me in 2014-15 where I had filmed largely in public spaces. Perhaps I was stopped because it was the 30th anniversary of the Tiananmen Square protests that day, perhaps it was Lucy’s presence at the station that unnerved the security, or perhaps it was just a conscientious security guard who saw us as a disruption in a public space. But that encounter made me realise that I needed to be careful while filming with Lucy. While I continued to work with her in public spaces, I reduced Lucy’s public presence and focussed on private and interior spaces such as the shops and factories.

and the time-travelling Blue in front of it. Sometimes the two personae intersected and my guide through the city became a lost wanderer, mixing her historical memory with a speculative one, and discovering the city anew. Her duality also crucially informed the speculative nature of the film as she moved between her embodied subjectivity as a native of Yiwu and as a time traveller bending the rules of time and space. If, in the former, her corporeality was underwritten by the specific histories of class, gender and location, in the latter she seemed to exist as a relatively disembodied subject. For me the duality was also symptomatic of my filmic impulses – to document and to speculate, and many of the formal choices that I made involved thinking at the intersection of these dualities.

The aesthetic imperative was stronger for Wang Xinlu's character, and I gave considerable thought and time to planning her look. I had firmed up on the idea of the two characters being time travellers but Wang Xinlu's character had to visually reflect a timeless contemporaneity. I wanted her clothes to be a second skin or a perhaps a uniform, something that would set her apart and help in identifying her even in the wide shot of a crowd. We finally decided on a light blue cotton dress that seemed to go well with the brown nakedness of Lucy's form. The brown hat bought from the Binwang Road night market,⁷⁷ close to Maeda restaurant, completed the look. The character immediately had a name – Blue – after the colour of the dress. I will leave it open for viewers of *A Terrible Beauty* to speculate about the deeper significance of her name.⁷⁸ At that time, I did not reflect on the name at all but it stayed and grew on the character and on me as the filmmaker.

Since Blue was the more dynamic presence in the camera frame, I decided to control her movement and slow her down to match the stillness of Lucy. Blue was however more ephemeral than Lucy and would disappear the moment she walked out of the camera frame. While Lucy came home with me, Blue never did. Sometimes I felt as if she were a figment of my imagination, a haunting of sorts. Lucy inhabited my house and looked back at me. Blue dissolved into the city once she walked out of frame and Wang Xinlu took over her duties as assistant and translator. However, as Blue, Wang Xinlu still carried the history of her ancestors to the film, just as Lucy carried her 'thingliness'. The question of who Lucy and Blue are is

⁷⁷ Binwang Road night market features in *Rehearsal for a film* (2015) and has since then ceased to exist. The video is an evidence of its existence.

⁷⁸ I borrowed the strategy from Jill Magid's project *Evidence Locker* (2004) where she wears a red trench coat for easy identification in the Liverpool police CCTV footage which she later procured to make her video works.

open for speculation. The narrative voice describes them as time travellers but the nature of their being is anybody's guess. Is Blue human? Is Lucy an object? Do they exist in clearly defined categories?

The process of filming them together was in itself an interesting experience and the move from the singular or the individual to the plural was both a numerical and conceptual move as it now entailed thinking of the film with both of them in mind. All of a sudden Lucy was no longer the only character or protagonist who had to be considered while thinking of a shot, or of locations. There was also Blue. At the same time Blue could do things or go to places that Lucy could not and filming was now a tripartite process between me and the two of them. While Blue could travel to most places outside Yiwu, taking Lucy with us in all spaces was not possible. For instance, Lucy disappears in the Hengdian World Studios section and due to this, I had to reduce Blue's visual presence there as well. Lucy in her entirety could not be taken to Ex Robot in Panjin, while Wang Xinglu left her blue dress in Yiwu. Seeing them together and having to constantly keep their togetherness in mind prompted me to start thinking through the concept of companionship which I will elaborate on in Chapter 4.

3.4 Speculative fictioning: a conceptual journey

i. A speculative impulse

The notion of 'speculation' has a long tradition in philosophy and art and one can go all the way back to Plato's infamous quarrel with the poets and dramatists and read it as a symptom of his deep-rooted fear of the disruptive potential of the speculative. In contemporary usage we encounter the word in utterly diverse contexts, from speculative fiction to speculative finance. While the myriad forms and contexts in which the speculative is invoked are evidence of its conceptual richness and dexterity, as with any term that is spread out in such a multifarious manner, there is a need to clarify its specific utility. In this segment I lay out the intellectual genealogy of the term, and how I am adapting it to describe the methodology that I have evolved in the process of making my film. Interestingly the etymology of the word 'speculative' reveals a linkage to visual perception as its roots can be traced to the Latin (speculari- 'observed from a vantage point', specula or watchtower), which in turn can be traced to its Sanskrit roots in spaś (a wellspring for a range of words that variously mean to

observe and ascertain something not readily evident).⁷⁹ As a film maker, I find myself drawn to the visual sensibility embedded in the history of the term, because speculation, by this account, implies more than just a reckless gamble. It elicits instead a gamble on observation, and to speculate is to create worlds or to look at the world from an unpredictable vantage point. If sight is traditionally limited by constraints of time and space, speculation bypasses the constraints and invites us to wager looking ahead into the future. To speculate is to look ahead in time and speculation wagers on the truth of the future with no guarantee that this truth will materialize.

While the “speculative turn” (Bryant, Srnicek & Harman, 2011) in Western philosophy is admittedly a motley one, referring as it does to a varied set of concerns, approaches and intellectual histories, underlying all of them is a shared interest in the political and creative potential of imaginative practices that are not constrained by narrow ideas of reality.⁸⁰ By creating room for possible alternative futures, we open out the possibility of challenging the basis of what gets counted as the real. If we often find ourselves paralyzed by an all too totalizing sense of the present, speculation affords an escape from this impasse of impossibilities. That the present can be other than what it is, and the future ought to be other than what the present designates it to be, requires a speculative sensibility that cuts across thought, action and creation. Speculation can take the “shape of radical unfurling, rather than protectionist anticipation” (Bahng 2016, p.10); it can respond critically to archival gaps and elisions, combining archival information, critical theory and fictional narrative to produce a “critical fabulation” (Hartman, 2008). While seeing kindred affinities to these speculative approaches, it is beyond the scope of this thesis to engage with the differences between these diverse positions at a minute level.

⁷⁹ For the purposes of my dissertation, I am primarily engaging with concepts and debates around speculation that have emerged in the context of the Western experience mainly as a result of the coupling between critical theory and science fiction. It is important to note however that there are rich traditions of speculative thought and practice from the non-Western contexts, many of which are woven into the fabric of everyday life and cultural narratives.

⁸⁰ Scholars associated with “speculative realism” (Rosengarten, Savransky & Wilkie, 2017, p.9; Shaviro, 2014, p.1) largely critique the anthropocentric premise and challenge the centrality afforded to knowing subjects and ask what it might mean to think the ‘in-itself’ of entities and objects as a way of imagining alternative futures. A broad coalition under the rubric of the “speculative research group” claim that “speculative practices themselves become active factors and ingredients in the becoming of the world.” (Rosengarten et al., 2017, p.10). To speculate, for them is to take the “risk of developing practices that, by engaging inventively with (im)possibilities latent in the present, can disclose, make available and experiment with possible prospects for the becoming of alternative futures.” (Rosengarten et al., 2017, p.10). A “speculative intent” (Michaels, 2016, p. 100; Stengers, 2010) is one that is open to and oriented towards the not-as-yet.

My preference is for an amorphous and inclusive approach to speculation which is not reducible to a single or static definition, and my concern is less with the accuracy of the definition and more with its creative affordances. For that reason, I am particularly drawn to Donna Haraway's multi-form idea of "SF" (2011), which by her own account is an expansive and generative concept that encompasses "speculative fabulation, speculative feminism, science fiction, science fact, science fantasy, string figures" and potentially more. Consistent with Haraway's boundary blurring thought, her idea of SF smudges the neat lines usually drawn between fact and fiction especially in the domain of science. In her own writing and engagement with technoscience, Haraway has moved organically between the domains of patent law, popular science fiction, visual art, biotechnology policy and mythology – endowing them with an equality that creates a new terrain of thought that reveals the fiction of the science fact even as it acknowledges the truth of science fiction. Fact and fiction are no longer unruly interlopers in each other's domain and instead what is revealed through Haraway's method is the political significance of boundary blurring.

Haraway's articulation of SF extends this impulse but is a little more explicit in rejecting a narrow idea of science fiction or speculative narrative against "speculative fabulation" which she sees as a more expansive term that weaves in storytelling with fact telling. Challenging the presumption that facts exist and merely have to be discovered, whereas stories have to be fabricated or fabulated, Haraway essentially posits that the facts of science themselves circulate within different registers of meaning making, and have to be made sense of, much as one makes sense of stories and fables. But unlike professionalised forms of storytelling such as speculative narrative, in which imagination is the only constraint that is placed on possible worlds, Haraway's preference for SF stems from the fact that it is closer to the domain of everyday storytelling, and fabulation includes as its raw material, newspaper accounts, data sheets, technological discoveries, conversations between shop keepers, scientific lectures, a zombie film or indeed any information, object or phenomenon that exists in ordinary consciousness. It is through the interaction of these ordinary and extraordinary worlds that SF combines storytelling and fact telling and forges material-semiotic worlds. Rather than accept the ontological existence of the world as a given fact, Haraway deploys the idea of Terrapolis to capture an active process of "worlding" (Stewart, 2010; Haraway, 2011) where the world is made and remade through SF. Haraway's Terrapolis is a terrain that is equally hospitable to nonhumans as it is to humans and it embraces a world of human-nonhuman entanglements, blurred boundaries, and threshold transgressions. Her Terrapolis is

“a chimera of materials, languages, histories... full of companion species... abstract and concrete. Terrapolis is SF.” (2012, p.4)

Haraway’s multispecies “pluriverse” (Haraway, 2016) is an attractive conceptual and methodological space to house my own experiments at infusing documentary film with a speculative impulse. If we return for instance to Yiwu as such a pluriverse, we find that a simple realist gaze would reveal a mid-sized city with extremely large markets, but this realist aesthetic utterly fails to capture the uncanny and wondrous nature of these spaces. At the same time, a completely fictive rendering of Yiwu runs the risk of exoticizing it as an aberrant fiction far removed from the realm of the ordinary. But what distinguishes Yiwu is the ordinariness within which the extraordinary is nested. It manages to braid an astonishing scale within the confines of small shops, and plays host to a universe of global traders plying for objects that herald a future imagination even as they create a makeshift home for themselves in which they wrestle with the everyday concerns of hope, distress, exhilaration and ennui. Yiwu stages a dramaturgy of the real alongside the artificial, and its flowers and indoor gardens provide a temporary plastic respite from the artificial lighting of the markets. Life in Yiwu is produced at the interstices of humans, mannequins, dolls and one-dollar flying fairies that share a common space in this proscenium of possibilities.

When Haraway posits research and writing as a “tight coupling” of the “factual, fictional and fabulated” (2012, p.2), I find myself reaching out to precisely such a blend in my film practice as a generative mode of thinking of our entangled times. My decision to use Lucy and Blue as travelling companions acknowledges the importance of pushing documentary narratives toward the direction of a “multispecies entanglement” (Haraway, 2016). Anna Tsing’s call for an entangled scholarship emerges from her concerns with the transformed nature of life under techno and biological capitalism. Both Haraway and Tsing acknowledge the political and economic realities that engender such worlds but they challenge the singularity of a progress narrative and urge for the importance of populating these worlds with more context-specific and ethical imaginations of lifeworlds. One concept that contributes in such a way for both Haraway and Tsing is “companion species” – dogs in the case of Haraway and mushrooms in the case of Tsing (Haraway, 2003; Tsing, 2012). I will return in the next chapter to a more detailed engagement with this concept and how I have attempted to deploy it in my research.

Anna Tsing's work refuses the euphoric and triumphalist accounts of techno capitalism's vision of a better life even as it appreciates the limits of a doomsday critique that posits the end of any other possible life forms. It asks instead for us to labour to produce more liveable concepts and narratives that appreciate the protean quality of ordinary life, and it holds on to the possibilities of politics amidst mutation. Tsing locates her own work *The Mushroom at the End of the World* (2015) in the context of the global trade in Matsutake mushrooms. These highly prized mushrooms ironically only grow in human-disturbed forests, and Tsing contends that this paradox requires our attention as it speaks to the possibility of new forms of life that emerge from the site of economic and ecological devastation. Tsing believes that we ignore it at the expense of abandoning existing sites from which other worlds can be created. While Haraway and Tsing both begin with a critique of the conditions of techno capitalism that have facilitated a particular constellation of contemporary life, their importance for me rests in their refusal to disavow the contemporary as a space of possibilities and metamorphosis. If economic interests conspire to constrain the possible shape of our lifeworld, our imagination and ability to speculate worlds into being has become a matter of urgent political and ethical significance. In this regard, Jeff Lemire's comic *Sweet Tooth* (described by some as Mad Max meets Bambi) is a good example of a post-apocalyptic fable of our times. An unknown virus kills a large number of people even as it breeds a new generation of children (hybrids) who are part human and part animal. What is unclear is whether these hybrids are caused by the virus or are the source of the virus, and the heroic quest in the comic involves one such hybrid child's journey of self-discovery and discovery of the world.

We can trace the hybrid narrative back to the engagement with popular narratives such as the mutants X-Men, which emerged in the 1960s to address a range of issues related to identity and the status of outsiders but truly mutated in the 1990s to respond to techno-biological forms of life. But if one is to draw linkages between the past and the present, then perhaps we could open up a more interesting space by going back further, all the way to the world of ancient thought, whether in Hinduism's human-animal gods or the plant-people in Ovid's *Metamorphoses*. What is true of myth and literature is equally true of forms of thinking as well. The very idea of an existing form conjures for us a given shape (a building, a poem, a film, a life) and to remake a form is to remake a world.

While Haraway seeks a more pliant imagination of the present and the future, a thinker who shares many affinities with Haraway, but with her gaze turned to the past, is Saidya

Hartman, whose work has emerged as an important signpost for my own. As a critical historian of gender and race, Hartman turns to absences and gaps in the archive, and asks how one can make them speak. While this may sound deceptively like a question familiar to most historians, where Hartman boldly strides ahead is her willingness to embrace the idea of fabulation as an essential practice in particular forms of history writing. Hartman contends that if the archive is itself complicit in silencing certain facts (in her case the Atlantic slave trade), then rather than engaging with positivist history on its own preferred battlefield – the archive of facts – it becomes imperative that we turn tactically to other modes of worlding a history into being, where speculation emerges as the ally of the critical historian. Saidiya Hartman’s concept of “critical fabulation” is an indispensable method of imagining what could have been and the act of fabulation animates past possibilities, retrieving their narrative potential when the archive has declared there to be none. Hartman asks:

“Is it possible to exceed or negotiate the constitutive limits of the archive? By advancing a series of speculative arguments and exploiting the capacities of the subjunctive (a grammatical mood that expresses doubts, wishes, and possibilities), in fashioning a narrative, which is based upon archival research, and by that, I mean a critical reading of the archive that mimes the figurative dimensions of history, I intended both to tell an impossible story and to amplify the impossibility of its telling. The conditional temporality of “what could have been,” according to Lisa Lowe, “symbolizes aptly the space of a different kind of thinking, a space of productive attention to the scene of loss, a thinking with twofold attention that seeks to encompass at once the positive objects and methods of history and social science and the matters absent, entangled and unavailable by its methods.” (2008, p. 11)

Hartman’s grammatical mood in the form of the subjunctive is one that is specifically addressed to the discipline of history, to make it more pliant and malleable to the claims of speculation. As with science, so with history, both are even willing to grant fiction a poetic license to speculate (it is after all fiction), but the truly threatening shapeshifting happens when fiction, fabulation and speculation borrow the meagrely available garment of facts to sing in the language of history and demand to be heard in the language of its own song. For Hartman it matters that it is history and not just historical fiction, it matters that the source of the fabulation is a historical document – a figment of history and a figment of imagination – the one does not exist without the other, but the one does not confine the other either.

In a similar vein, Haraway has described the significance of the anthropologist Marilyn Strathern's work as one that embodies the practice of feminist speculative fabulation in a scholarly mode. In a poetic vein, Haraway says

“It matters what matters we use to think other matters with; it matters what stories we tell to tell other stories with; it matters what knots knot knots, what thoughts think thoughts, what ties tie ties. It matters what stories make worlds, what worlds make stories.” (Pilgrim Award acceptance speech, 2011, p.4)

While I was much more conscious, during the filming of *A Terrible Beauty*, of inhabiting a speculative spirit, I realize that it is perhaps something that I have been drawn to as a method and process of filmmaking. In a previous work, *There Is Something In The Air* (2011), I weaved in stories of two women relatives who went missing in the early part of the last century along with contemporary accounts by women who had been amorously possessed by *djinnns*.⁸¹ I used fragments of found photographs, family images, documentary footage of women in a Sufi shrine, along with scripted love stories and ghost stories to collectively produce a tale that can only be told through fragments of reality, its truth stuttering itself out through concocted fable.

My elective affinities to Haraway and Hartman seem like a logical progression from my previous interest in the ghostly past to an equally spectral future. Where Hartman works with vanished archives of the past, I was intrigued by the idea of whether one could think of vanishing archives of the future. Yiwu's panoply of quotidian items were not objects of any obvious historical value, and within the logic of value determined by museums and archives not worthy of preserving. And yet one cannot help but wonder whether the clay pot excavated from Mohenjo-daro was but the equivalent of a plastic bucket in its time? Wandering through the forest of make-believe that is Yiwu, I often thought of my own treks as forays into a multi temporal, multispecies world - one threatened by extinction of another kind – of inattention to the ordinary. If Hartman rescues the past from itself through critical acts of fabulation, how, I wondered, could a filmmaker fabulate a multispecies future into being?

⁸¹ Supernatural creatures in Islamic mythology and theology with an ability to possess humans.

ii. A practice of fictioning

If speculation is the aim, then fictioning (Burrows and O’Sullivan 2019) is one of its chosen tools. Its self-conscious framing as a verb rather than as a noun aims to alert us to an aspect of doing or making – where expressive forms attempt to chart a trajectory other than those which are currently possible. Simon O’Sullivan and David Burrows see fictioning as a myth-function of contemporary art and philosophy and variously attribute to it “the potential for new subjectivities”, “as intervention in, and augmentation of existing reality”, and finally as resistance against critical power which manifests control over existing realities (2019, p.2). I feel that it is the refusal to succumb to the *fait accompli* of the real which provides fictioning a political edge. In *A Terrible Beauty*, it is fictioning that refuses to allow the future to be swallowed up by a predetermined inevitability and the audience is left to speculate on both the possible and improbable closures to the travels of Lucy and Blue.

To paraphrase Ayesha Hameed (2017), in the context of my research, fictioning serves as a tool and a weapon that infiltrates and actively pursues alternatives by posing some “what ifs” such as what if Miracle City is not an aberration but a constant? What if a swarm of plastic-eating bacteria attacks contemporary cities and we are left with a world without plastic? What if falling in love with mannequins and robots becomes an accepted social practice? What if it teaches us to develop new languages of intimacy and care for other humans? Speculative questions of an improbable nature do not come with any guarantees that they will materialize into reality; what they do foster is an idea of plural possibilities of the future. These ‘futures plural’ have the potential of becoming tactics appropriate to particular situations. This is not significantly different from the way that moral philosophy uses hypothetical thought experiments⁸² – the factual circumstances they imagine may be entirely fictitious but the moral stance required to respond to the experiments is far from fictitious, and just as moral thought experiments allow us to clarify our normative horizons, fictioning extends the horizon of imaginable futures.

⁸² Consider, for instance, the manner in which the famous trolley problem from Utilitarianism is framed. There is a runaway trolley barrelling down the railway tracks. Ahead, on the tracks, there are five people tied up and unable to move. The trolley is headed straight for them. You are standing some distance off in the train yard, next to a lever. If you pull this lever, the trolley will switch to a different set of tracks. However, you notice that there is one person on the side track. You have two (and only two) options: 1. Do nothing, in which case the trolley will kill the five people on the main track. 2. Pull the lever, diverting the trolley onto the side track where it will kill one person. Which is the ethical option? See- https://en.wikipedia.org/wiki/Trolley_problem

In genre literature, it is science fiction or speculative fiction which comes closest to the aims of fictioning. While there are disagreements (Margaret Atwood versus Ursula K. Le Guin (Atwood, 2011, p.2) on which (science or speculative fiction) is a more exact term, I consider these as fraternal fights and work instead with what they have in common. Science fiction is a genre that is deeply invested in future and possible worlds, but as fiction writers and commentators have reminded us, the boundary between science fiction and social reality is an optical illusion (Haraway, 1996). Using fiction, they are able to project contemporary concerns and anxieties into an imaginary future but one could equally say that they use the future to speak differently about the contemporary. SF works with a horizon of the future where these worlds may actualize themselves. Perhaps the idea of an optical illusion is a useful way of connecting the aims of fictioning and the practice of documentary cinema. Thus, even as documentary practice claims to be rooted in a realism about the present it also contains fictive elements including staging and performance. At the same time, when a film like *A Terrible Beauty* purports to be set in the future, it stages an optical illusion which allows the viewer to see the present differently.

3.4 Worlding a future into being

i. Cohabiting theory and practice

I will now chart out the methods used to extend speculative and fictioning practices into my film. Methodology in film is not the same as methodology in the sciences, and it difficult to chart out a linear progression though which a filmmaker deploys various methods, step-by-step, to arrive at a conclusion. The freedom of an experimental film allows for a much more playful opacity where conscious and unconscious processes coalesce to produce an experience that is simultaneously affective and conceptual. For a film like *A Terrible Beauty* which traverses a set of facts (the actuality of a space like Yiwu, the statistics related to its trade etc.) as well as a set of abstract speculations (future of human-nonhuman interaction), a challenge that exists is that of coproduction.⁸³ How do facts and fiction coproduce each other? How does theory and practice coproduce knowledge of our world? How does one think of the domain of

⁸³ Coproduction is a central concept in the work of Sheila Jasanoff, a leading theorist in science and technology studies. For Jasanoff, diverse disciplines such as science and law simultaneously co-produce knowledge which collectively frames the normative horizons of experience.

practice as theory, and theory as practice? What, following Trinh T. Minh-ha, would it mean to theorize *with* my film rather than *about* it? What does it mean to transform an image that one sees and captures into a set of propositions about the world? How does a film practice produce concepts differently from other research processes? How does one describe this knowledge? I found it helpful to keep in mind Carole Gray's (2006) reminder that the word theory is etymologically linked to visual history ('theōrein' means 'to gaze upon' a sight, and to spectate (from the Latin 'specere' – to look at). This in turn is also linked to the word speculate (to conjecture without knowing the complete facts). Speculation therefore entails a coming together, an enjoining of the known and the unknown to produce a theory that confidently opens up possible worlds without requiring absolute certitude. For instance, my experience of working with Lucy and Blue propelled me to think about the nature of their coexistence and cohabitation of a world and what it meant to think of them as companions.

Subsequently I encountered Haraway's concept of "companion species" (Haraway, 2003; 2007), and while it emerged as a crucial concept in my work, it was a concept that emerged from the film rather than from theory. At no point of time in the film do you actually encounter the phrases "companion species" or 'companion copies', and the challenge was to imagine ways of conveying these concepts to the viewer through the experience of the film without their having to read this dissertation. Would viewers necessarily arrive at the same idea while watching the film? Perhaps not, and indeed it would be a failure of the film were everyone watching it to arrive at the same conceptual conclusion. Isadora Duncan famously once said that if I could explain its meaning to you then I wouldn't have to dance it, would I? I believe there is a similar sensibility required to understand practice as research and as theory.

Conceptualising and executing a creative form is different from putting out an abstract proposition into the world, and it involves a metamorphosis of knowledge so that what is eventually put out there is not just an idea but an idea developed via a practice, in the form of a film. It is to open up an 'iterative dialogue' (Munro & Bilbrough, 2018) between theory and practice. Theorizing from a threshold of change requires us to perpetually inhabit the moment with a change of clothes packed, and I have strived to remain true to this mercurial quality in my methods.

ii. The naming of *A Terrible Beauty*

The title of my film *A Terrible Beauty* is inspired by lines from a celebrated poem “*Easter 1916*” (Yeats, 1921). The text reflects the poet’s ambivalent relationship to a failed violent uprising on Easter day in 1916 resulting in the execution of the insurrectionists. While Yeats himself did not condone violence and while the uprisings failed, the execution resulted not in the demise of the Irish nationalist movement, but in its reinvigoration. In the critical stanza in which the line itself appears, Yeats writes

All changed, changed utterly:

A terrible beauty is born.

Rather than a triumphant celebration of change, or a wistful lament that mourns a future to come, the phrase “terrible beauty” holds within it a contradiction, a germ of doubt gnawing at the heart of conviction. To my mind, there is a similar ambivalence that lies at the heart of my research and film, and I could neither disavow nor entirely celebrate the transitions that I was seeing through the prism of the film. Rather than resolve these ambivalences through an assured but singular finding, I chose instead to allow speculation to do the work of producing contingent futures.

iii. Locations in *A Terrible Beauty*

Within my practice I have sought to develop a style in which the descriptive carries the allegorical. While Lucy and Blue are central to the narrative of the film, they are not an active visual presence in all segments of *A Terrible Beauty*. The viewer is however aware that it is through their gaze that the dramaturgy of the film and its various spaces unfold. While I filmed in actual locations, largely in an observational mode, I had to invent techniques to produce an ‘other worldliness’ for Yiwu and render it as a mythical city. One of the interesting challenges for me was to film the city in a way that did not entirely subsume it within the real space called Yiwu, while at the same time, not erasing the fact that it is Yiwu that serves as the spatial context of the film. The spaces which form Miracle City include multiple outdoor locations in Yiwu, Futian Market, the artificial flowers market, and factories manufacturing flowers, dolls and mannequins. The Forever Persons segment was filmed at an android factory in Panjin. Parts of the film were shot in Fotang Ancient Town and Hengdian World Studios.

While Miracle City is not representative of Yiwu, it contains its essence. In retrospect, I feel that *A Terrible Beauty* can also be described as a city symphony; the city here is one of imagination, a city that emerged from my research and engagement with the nonhuman subjectivities of Yiwu. In Italo Calvino's *Invisible Cities* (1972), the intrepid traveller Marco Polo provides Kublai Khan an account of the wondrous cities that he has encountered in the course of his travels, when actually all that he is doing is describing the different facets of Venice. Calvino juxtaposed the idea of a single space against multiple virtual spaces. My film pays a modest tribute to Calvino by brushing a single space against its (im)probable future.

The factories became a crucial site for the future making of Miracle City. While the early 20th century was marked by the figure of the anonymous assembly line worker engulfed within the gigantic machines of industrial modernity, best exemplified by Chaplin's brilliant image of a worker sucked into a machine in *Modern Times* (1936), in my film, it is the factory worker who becomes the conduit through whom futures are produced. It is in the factories that I stage the drama of the creation of "Forever" things against the backdrop of an actual production process. While history and social sciences have had a deep engagement with the factory as a site of production and have posed questions about mechanization, mass-production, dehumanization and alienation of labour, I was keen to explore these sites of production as sites of worldmaking. My specific challenge therefore was to render the space of the factory as a speculative one involved not just in the production of commodities, but also of new worlds, of futurities.⁸⁴

Filming in the Yiwu markets was easy at one level because of the presence of multiple television crews who feature the city in news programming quite regularly. The business owners are also used to the presence of foreigners taking images of the market and it is an accepted practice. Wang Xinglu and I had prepared a bilingual presentation about my project which we carried as a .pdf file in our cell phones and often used it to introduce ourselves. The act of introducing myself and my project repeatedly also became an everyday practice and I strongly feel that this constant explication helped me shape the practice and philosophical core of the project.

⁸⁴ I was inspired by the manner in which Bert Haanstra in *Glass* (1958) and Alain Resnais in *Song of the Styrene* (1959) added a mythical dimension to the seemingly mundane manufacture of hand-crafted glass bottles and mass-produced everyday plastic objects in their films.

The journey to all the places outside Yiwu began with leads in the city. The access to the artificial flowers and doll factory was through my networks from 2015 and it was relatively easy to film in the two locations. Lucy Xei Fu provided me with contacts to film in the mannequin factory. She made many efforts for us to be able to shoot in the factory where Lucy was produced but the permission for that was delayed and when it came, the dates clashed with my shooting schedule in Panjin. Location scouting for a sex doll factory however was very difficult. While I encountered low cost anthropomorphic sex gadgets in shops in Yiwu, all the production facilities were outside the city and for quite some time it seemed that I would not be able to film in any factory. However, with Wang Xinlu's persistent efforts, we managed a breakthrough and obtained permission from Ex Robot to film in their research and development lab in Panjin, a city in north China at a considerable distance from Yiwu. Ex Robot as it turned out produce sex dolls as well as service androids. Their claim to fame is Jiang Lai Lai, a humanoid bionic intelligent robot news anchor developed by the company.⁸⁵

Our other filming site, Fotang was familiar territory for Wang Xinglu since her parents have a home there and she has spent all her childhood in the city. Fotang Ancient Town contains old buildings and markets that have been preserved with considerable support by the provincial government. It is alleged that some of the old structures are actually new constructions made to replicate ancient buildings. I also shot in the Hengdian World Studios,⁸⁶ the largest film set in Asia, a few hours by bus from Yiwu. I filmed with Wang Xinlu on the sets of colonial Hong Kong and 19th-century Guangdong on a rainy afternoon, sheltering my camera and tripod with an oversized umbrella – speculating on world events that Lucy and Blue may have witnessed in that time.

iv. Cinematic techniques: static camera and long take

I began my filming in Yiwu in an observational style, standing on street corners with my camera on a tripod and just watching everyday life unfurl within and beyond the parameters of my frame. This process helped me to create a space for myself and allowed people to get used to my presence – especially in Chang Chun where I lived, in Futian Market and around Maeda, the Arab quarter. My natural impulse as a filmmaker is to keep the camera as close to

⁸⁵ For more information, see the Ex Robot website: <https://archive.md/frXES> (Archived on 19 September 2021).

⁸⁶ Filmmaker Zhang Yimou used the Imperial Palace at Hengdian World Studios as the backdrop for the Emperor Qin's palace for his film *Hero* (2002).

me as possible – till it becomes an extension of my body – and in the 2015 filming of *Yiwu* I had done exactly that. I did not use a tripod for the camera, making my perception and movement a visible aspect of the recorded image. This “cinematographic embodiment” (Albright, 2011, p.34) provided an intimate and subjective impression to the visuals and at the same time rendered them more dynamic than what I would achieve with a static camera. For *A Terrible Beauty* I went against my natural inclination and the static camera and long take became integral to the visual aesthetics of the film. I wanted the film to present a quiet, motionless witnessing of this world-in-the-making and for the visuals to have the stillness of a photograph and yet retain the dynamism of a moving image. The stability of the shot was essential to the visual language of the film; on the rare occasion when the camera did move it served to heighten the uncanniness of the spaces which I was filming. I had in mind Patrick Keiller’s *London* (1994), which was shot largely with a static camera using long takes. In an interview Keiller says that “since the space – streets, buildings and so on – doesn’t move, there isn’t anything for a moving camera to follow” (Scovell, 2017). Even when I was not rolling the camera, I used the lens to view the city because it was only then that the city before me became Miracle City. Everything outside my frame was palpably Yiwu and China.

I also relied on long takes to observe the action within my frame and used that time to simultaneously reflect on the process and create speculative forays into the reality of what I saw. While shooting in the flower factory,⁸⁷ I wondered if it was possible to film the making of an artificial flower as if it was naturally flowering. I looked closer from behind my lens and discovered that the painstaking process of handcrafting a factory-produced flower made no attempt to hide its artifice. Each stalk, stem, petal, stamen, bud and leaf told the story of its ‘assembly’ rather than its flowering. The proprietor (who was used to television news reporters shooting in her factory) was curious about why I was filming the same object and action for such an ‘unusually’ long time. It was as if the act of observing an object, an unfinished orchid in this case, for three minutes seemed to violate a narrative compact that one has with these objects. I made it a practice to observe and to record for a minimum sixty seconds up to six minutes. I wanted to give time for the visual to unfold, for the image to start breathing. As if the longer I looked, the flowers would tell me a secret, or give me an insight or ask me a

⁸⁷ See Kleeck (1913) for an account of women’s work in artificial flower factories in New York and Paris in the early years of the 20th-century. See Voit et al (2016) for images of artificial flowers filmed as ‘natural’ flowers.

question. I used some of these imaginary conversations in the voiceover script, using a speculative impulse to declare factual data.

I carried a similar impulse when filming in all the production spaces – the doll and mannequin factories and at Ex Robot. Taking a cue from Walter Benjamin, I wondered what was the work of the human in the age of mechanical reproduction? I watched a worker in the mannequin factory working with a mould machine for about an hour before I began filming him. I noticed that it took about three minutes for the polymer powder to be moulded into the shape of a mannequin. I filmed the process in its entirety and have used 33 seconds from one of the takes hoping that the viewer is able to experience the ‘real time’ of the process. I felt that it was important to give a sense of the time it takes for a mannequin to be cast. What happens in the time that the machine is at work and the worker waits? I also wait while watching and, in the space and time of *A Terrible Beauty*, I invite the audience to wait and watch. For while the machine works, the worker does not rest. This waiting is not resting. This waiting is an anticipation of a future moment. Will the fresh mould turn out to be alright or will it have to be discarded? Is the worker impatient that the polymer powder delivery is late? Is he wondering when the rain will stop? Does his mind wander to the lunch that he is going to have?



Fig 3.3 : Lucy observing the worker as he waits. Production Still.

I wanted to retain an “interpretative space” (MacDougall, 1992-93, p.41) for the viewer to create multiple meanings. MacDougall uses a spatial metaphor when he says that the long take provides “the stage for the enactment of human behaviour which reveals individual identity” (p. 42). How could one similarly think about the site of production as a stage, not

just for the enactment of human behaviour and identity but also – in factories such as this one – where human workers share the stage with objects whose work it will be to mimic the human? While the length of most of the shots was considerably reduced in the editing process in order to keep a precise narrative flow for the edited film, shooting long takes created the ‘stage’ for the speculation of space and time to unfold. It also made my own practice a lot more meditative. Shooting long sequences of the process of manufacturing and closely watching these objects come to life over and over again brought me into a more reflective relationship to objects. This in many ways informed my own perspective on the concept of “companion copies” which I will discuss in detail in the next chapter.

v. Science fiction tropes: filming an everyday futurity

As discussed earlier, a science fiction aesthetic was essential for *A Terrible Beauty* since I feel that the genre lends itself to creatively thinking through questions of futurity and in particular what it means to be human in highly mediated and technologized futures. I began my research at a time when the audio visual creative space was flushed with conceptually sharp, high budget science fiction content. Canonical shows such as *Black Mirror* (Brooker, 2011-19), *Humans* (Fry, 2015-18) and *Westworld* (Nolan & Joy, 2016-20) had set the bar high in terms of critical engagement with concerns around technology in a post-human world. While the futures in these programmes were just an extension of contemporary anxieties, they depicted a dystopia rather different from the low-cost and ubiquitous futures that I saw around me. The creative challenge for me was to inflect *A Terrible Beauty* with a commonly understood sci-fi visual grammar. By transforming the ordinary into the fantastical, I thought that I would be able to produce a critical distance from the present time, inviting the viewer to look aslant in order to tell my truth or see the truth.⁸⁸ In *A Terrible Beauty*, I have deployed some easily recognizable science fiction tropes such as interspecies companionship, sentient objects and time travel. Having an adult size mannequin as the principal character set the sci-fi tone for the film but it was from Yiwu city that I took my first flight of fantasy.

⁸⁸ From Emily Dickinson’s *Tell all the truth but tell it slant* (1976)



Fig 3.4 : Architectural design, Futian Market, District 1, Gate number 7. Research Still

The challenge in filming Futian Market was how to capture its gargantuan scale, and yet inhabit its quotidian mundanity. Most of the documentation of the market on online forums such as YouTube and TikTok struggles with this scale and relies on accelerated video – something I have also resorted to in one sequence of *A Terrible Beauty*. However rather than attempting to capture the entirety of the space, I decided, considering that the focus of my research was everyday futures, to inhabit its ordinariness – an ordinariness that seems simultaneously uncanny and fantastical precisely because of how commonplace everything seemed. I decided to utilize the infrastructure of Futian Market as the ‘set design’ for my film. Some parts of the building could pass as conventional sci-fi such as the entrance via Gate 7 for District 1 of Futian Market which gave me an impression of it being a low-budget spaceship.

These visuals have been used in the opening sequence of the film just after the voiceover establishes that Lucy and Blue are time travellers. However, given the constraints of the built-up space, I knew that I had to evoke the uncanniness of the space through a visual metaphor. To this end, I decided to work on abstract visuals comprising reflections and shadows to offset the direct gaze of the camera. This was more as a practice for myself and to stay away from the temptation of looking directly. I did this for a week and then eventually eased into a more observational mode but I tried not to point the camera directly at people or objects but to observe from the point of view of either Lucy or Blue. The presence of Lucy enabled me to produce dissonant images of the city and the market, and I was often struck by how commonplace a mannequin appears to us in a shop window, but the moment I moved it

into another setting, it transforms the space visually, rendering it uncanny. At the same time, it was important not to exoticize Lucy and to achieve this it was important that I shot Lucy and Blue in a similar manner. It were as if a filmic acknowledgment of their equality was a precondition to a recognition of their species equality.

It is relatively easy to create a sci-fi visual aesthetic when working with anthropomorphic forms – particularly mannequins and service androids. It was the artificial flowers that offered the bigger challenge. The world of flowers has provided a universal grammar for the fleeting experience of beauty, and the ephemeral nature of flowers has served as the inspiration for poets, painters and filmmakers. The world of artificial flowers is rather confounding in this regard. Developments in the technology of these phytomorphic forms have more or less erased the plastic sheen of artifice that one associated with fake flowers of an earlier period. If images of the two were put next to each other, one would be hard-pressed to distinguish between real and fake flowers today. Flower factories and flower markets provide a promise of eternal beauty even as these objects are foreshadowed by our knowledge that they will return to the soil as toxic materials.

My philosophical interest was in the kind of affective experience and thought that these flowers engendered. Could they serve as an inspiration for poets and writers? I filmed the flower factory and flower markets with a premise that this was indeed the *only* way to create flowers, and these factories were the places where all the flowers of the whole world are made, and eventually where the Garden of Eternal Bloom in *A Terrible Beauty* gets constructed. I imagined a world in which these flowers would then be planted in gardens, forests or on sidewalks. But rather than just reeling in the horror of the thought, I asked myself what would it mean to shoot with a certain ontological *regard* for the object itself? Could one think of them as having a right to exist just as real flowers do, but on their own terms as artificial flowers? Might their state of eternal bloom be a source for a new kind of wonderment and intimacy? And finally how does their potential eternity redefine our relationship with the natural vegetal? I felt that filming with this approach as opposed to a constant focus on the artificiality of the object could potentially produce more interesting images of thought from the flowers, rather than merely about them. I had to believe in the fantasy myself. There is something philosophically curious about the phrase ‘make believe’, and nowhere did the perplexity of this phrase, which joins the act of making and the act of believing, strike me more than in the flower factory. This entails the suspension of *disbelief*, for here indeed was a space of production and



Fig 3.5 : Flower making, one petal at a time. Yiwu. Production Still.

of making, not just of objects, but of a belief in their proximity to reality and nature. Amidst the artifice, I also had to make believe and stay with the conviction that this was how all flowers were made, that they are painstakingly hand crafted, one petal at a time. I had to forget that a universe exists outside this factory where flowers bloom from seeds and grafts. I am not sure if it made a difference in the visual material but inhabiting the space of conviction was the only way that I could move beyond producing a documentation of an artificial flower factory. It enabled me to imagine the artificial flowers not only as sentient beings but also as capable of thought. I incorporated their thoughts in the narration adding to the speculative register of the film.

“The flowers speak of petrol... they recall the heat of the earth... the liquid rock, the slow becoming of oil... bodies of dead ancestors... transformed over millions of years into a sweet and sour liquid that runs through the very fibre of their being.”

vi. The object looks back: mannequins, dolls and androids

Lucy Xei Fu connected me to the owner of a mannequin factory which produces about 300 mannequins a day and their products are of a higher quality than my Lucy. Unlike the classical idea of the factory, which we imagine to be a large scale, mass production unit, most of the factories I visited and filmed in are small family-run enterprises that work on a schedule

determined by overseas orders. This mannequin factory was also a small unit – more like a workshop than the space I had imagined. I filmed in the production area and the storage section of this space. I noticed that the worker on duty seemed unperturbed by the presence of a camera, two women and a mannequin observing him at work. For me the factory was an important space to explore the unfolding drama of Lucy's being. From a documentary perspective, she was in a way returning to the place of her own creation, and in terms of speculative fiction she was returning this time to witness the creation of “Forever Companions”, beings who looked very similar to her. What affinities did she share with the object that was coming into being? This segment is primarily filmed from the perspective of Lucy, using a lot of OTS (over the shoulder) shots. The viewer knows that it is she who is watching this and we are watching her watch. The viewer is compelled to imagine how Lucy sees these anonymous mannequins – seemingly similar in many aspects but perhaps different. While point of view perspective shots are not uncommon as a strategy to create an empathetic perspective, the interesting question for me was what it meant to create a point of view of an inorganic object. Lucy was at home in this space. It looked like she belonged and was with her kind and yet the personality that I had ascribed to her – one which had accreted over a period of time – also made her different from the new mannequins that were being created.

After observing Lucy in the mannequin factory, I decided to film with her in a factory that manufactures dolls for a global market, which in *A Terrible Beauty* is described as the factory that produces the “Forever Child” of Miracle City. This was the doll factory where I had filmed my short film *In Her Image* (2015). This film was a glimpse into the process of production of the doll and explores the relationship the worker-creator has with the object that is being crafted in her image. During the time of filming *In Her Image*, I had conducted a long interview with the ‘factory boss’⁸⁹ and I knew that he, like many entrepreneurs in China had emerged from the ranks of the workers. He knew each process of production, was intimately familiar with the machines and could take the place of a worker on the production line if required. He had watched *In Her Image* and was curious to see how the new project would develop. When he saw Lucy watching the dolls he asked me if she was their mother. I do not recall my exact reaction but it can be encapsulated in a tentative “perhaps”. Here I was watching Lucy watch with a sense of distance. Perhaps Lucy’s detachment was in fact a quiet recognition

⁸⁹ Incidentally *Factory Boss* (2014) is also the title of a film by Zhang Wei. Set in a doll factory in Shenzhen, the film is an attempt to depict the complexity of global economics through an exploration of the relations that exist between workers, factory bosses and international corporations.

of kinship. She can be seen in several *tableaux vivants* lost in thought – wondering what the dolls represent and what they actually are. These dramatic *tableaux vivants* with Lucy and Blue lend a theatricality to the image. The “state of absorption” (Jacobs, 2011, p. 94) of the characters and the objects invites the viewer to partake in the visual meditation and it creates a space to pay attention to the various subjectivities in the film.

It is in *Ex Robot* that my sense of being watched was most acute. I could not film with Lucy and Blue in this space because of a range of logistical reasons and so, within the narrative flow of *A Terrible Beauty*, Lucy and Blue disappear somewhere in Miracle City and it is the narrator who takes the viewer to the factory producing “Forever Persons”. As I have said earlier, Yiwu abounds in wholesale sex toy shops catering to a global market, with the most popular item being cheap inflatable dolls. A “male” torso with an erect penis was available for \$40, a silicon vagina with large sized bottom can be had for \$7. However filming in a factory seemed like an impossibility till Wang Xinlu managed to secure permission for *Ex Robot*. A few days before the shoot, the company CEO emailed us informing that he could not permit us to film the sex doll because of the negative press that this business gets in the West. He said that since the company is changing its profile and will now be focusing on developing service androids with artificial intelligence, we could film the research lab.



Fig 3.6 : A language training session of the android. *Ex Robot* 2019. Production Still.

It was my first visit to a robotics R&D laboratory and I felt like I was on the set of *Westworld*. In an interview, the CEO, who was also a scientist, told me that while he feels an

affinity with the androids, they will always be subordinate machines for him which is why he insisted on making the mechanical parts of certain androids visible. However the visible distinction between a living human scientist and the unfinished androids ceased to matter. The space disoriented me and I felt as if all the androids were staring at me, questioning my presence amidst them. I had no prior relationship with the androids and I did not know how to begin the conversation. I began filming wide shots and maintained a distance for a couple of hours before I had the courage to step forward and look closely. Given the overlapping nature of these three spaces of manufacture – mannequins, dolls and androids – it was inevitable that they would share some commonalities in the manner in which I filmed them, but at the same time I was keen to incorporate slightly different elements that would distinguish one from the other formally, as well as to capture the substantive differences between these different objects. One of the specific ways in which I felt that the dramaturgy of the exchange between Lucy and these other replicas could take place was in imagining their encounter as a transaction of looks.

Ashish Rajadhyaksha (2001), building on the work of the film theorist Laura Mulvey, suggests that there are four looks of cinema. The first three are accounted for by Mulvey (1975), which she enumerates as the camera looking at reality, characters in the narrative looking at each other and finally the spectators looking at the characters looking at each other on the screen. In order to account for a specific kind of look that exists in Indian popular cinema, Rajadhyaksha argues for what he describes as the fourth look or the Rajnikant look, where the star on screen acknowledges the presence of his fans in the theatre by giving them a specific look. This fourth look could be described as a look of acknowledgement through the act of looking back. I was interested in developing and extending this insight as a matter of practice, and in the sequence with the mannequins and the androids in the artificial intelligence lab, I was keen to explore what it might mean to imagine objects looking back at us. This speculative engagement with the gestural and with the expressive capacities of seemingly inert objects reverses the presumption that we associate with what it means to acknowledge another. Traditionally it is the human subject and consciousness that bestows upon objects a certain life spirit through an affective investment and bond with the object – such as my growing intimacy with Lucy. My acknowledgement of Lucy's being recognizes a certain libidinal excess that inheres in her.

I was interested in reversing the gaze and wanted to film from the perspective of Lucy and the 'supporting cast' of *A Terrible Beauty*, with these objects looking at the camera, the

camera person and by extension the spectator. What would it mean to film with a perspective that acknowledges the autonomy of an object? What if the mannequin that we see in a store is actually a time traveller observing us? Is it possible that her seemingly blank and vacant look is indeed her acknowledgement of our humanity?

3.4 Spinning a yarn: rendering research as fiction

The voiceover is an active agent in the worlding of a future in *Miracle City*. It provides information, explication, wonderment, doubt and above all a structure for the narrative arc of *A Terrible Beauty*. The text of the narration is based on my research notes on Yiwu. Some of the earlier drafts of the narration were written in my voice as the filmmaker and gave an account of my travels in Yiwu with Lucy, the mannequin. With the gradual emergence of Blue as a character, I, the filmmaker stepped back and let a story of the adventures of Lucy and Blue take over. I transposed my experiences and ideas into a fictional account which was written in tandem with the editing process. Initially, I had relied rather heavily on my field notes to develop the script but the more time I spent with my footage, the more that Lucy and Blue escaped the confines of my notes and sought the freedom of their own narrative. The voiceover that I developed eventually arose from the fiction of these two impulses. The narration becomes a crucial device in the “speculative fictioning” of *A Terrible Beauty*. It is spoken in the voice of an unidentified female narrator who seems to have witnessed Lucy and Blue’s time in *Miracle City*. The film also has two sequences where we hear the voices of Lucy and Blue written as a dialogue between the two characters. While Lucy and Blue express their apprehension over the ‘miraculous’ claims of *Miracle City*, the narrator ties the different characters, spaces and events in the film together.

In the era of silent cinema, the Japanese film industry developed the practice of having a *benshi*, or a narrator who would provide a live narration of what was taking place on the screen. The *benshi* performed the role akin to a *sutradhara* in the Indian theatre tradition, weaving together the visual realm with an acoustic register but one which saw the role of narration as a literal one, harmonising the two. In my use of the voiceover, I have strived to obtain a non-illustrative relationship between the visual and the aural. While the visual records in an observational manner the ebbs and flows of real spaces in a present time, the voiceover gestures to the speculative and invites the viewer to do the same. It eschews the indexical

function of the image by juxtaposing it against a voiceover that seeks to dislocate the image in time and space. In the film I have attempted to variously blend information, exposition and speculation as a technique of futuring. As we discover towards the end of the film, the narrator is unreliable and possibly just a software programme. A story-telling sex doll? Or perhaps it is an android such as the one in *The Trouble With Being Born* (Wollner, 2020), carrying a palimpsest of previous codes and adaptations?

While the theme of time travel has been a popular trope in science fiction cinema, and many protagonists have flung themselves into futurity (McLean, 2011), documentary has only just begun time travelling in futures. In *A Terrible Beauty*, Lucy and Blue carry forward the legacy of the nameless time traveller of *The Time Machine* (1895). While there are visual gestures to time travel and futurity in the film, it is largely established through the spoken word of the narrator, who introduces Lucy and Blue in the beginning of the film, describing them as time travellers, indicating the speculative intent of the film.

“This tall building offers a good vantage point to watch the city from. You can see two people standing here. Their names are Lucy and Blue - seasoned time travellers and explorers... Lucy and Blue have travelled together for a very long time... So long that they have forgotten the beginning of their journey.”

My specific interest in using the voiceover as a fictioning device was to bring a productive tension between what the viewer can see and what the viewer hears. If the classical *benshi* ally themselves entirely with the image, thereby reinforcing the certainty of the image, my narrator seeks to cast doubt on what that the viewer seems to be seeing. In *A Terrible Beauty* this task is rendered simpler because the film is situated in world of facsimiles who call out for a varied account of their existence. While the audience is looking at the images of an actual R&D laboratory of a robotics company, the voiceover layers these visuals with the fictionalised account of the narrator’s observations in the “Forever Persons” factory.

“They walk and talk like the living but they don’t need food, water or air.
They never sleep but they dream.
They have no soul but they have tremendous will...
They have beautiful names like Samantha, Sophia and Jiang Lai Lai.”

The privileged position of the documentary camera as a witness to events unfolding before it is displaced by the speculative gesture of the voiceover. Stella Bruzzi (2000), writing about the ironic possibilities of narration, states “The traditional voice-over form emphasises the unity, and imaginary cohesion of its various elements; so the dominance of the narration covertly serves to emphasise the incontrovertibility of the images by refusing to dispute and doubt what they depict” (p.59). *A Terrible Beauty*, in going against the tenets of a traditional voiceover by incorporating the speculative, puts in dispute what the viewer sees. While the visual shows a contemporary robotics laboratory with mute androids in the various stages of production, the voiceover takes the viewer into another time, and gives the androids a subjectivity and a story.

The voiceover serves as a critical tool for speculative fictioning in the film and enables *A Terrible Beauty* to lie on the cross dissolve between reality and speculation. The speculative in the film lies at the juncture of that which is seen and that which is heard. The voiceover creates doubt in the reading of the evidentiary documentary image. The narrator navigates a schizophrenic zone occupied not only by Lucy and Blue, but also by objects such as flowers, dolls, and androids. These things not only look back at the filmmaker and the viewer, but perhaps they also talk to each other. The artificial flowers speak in barely discernible whispers – they lament the loss of their ancestors and express their desire to be part of the Garden of Eternal Bloom. The narrator can hear them and she tells the viewer that:

“Lucy and Blue realise that the smell of immortality clings to each object in Miracle City and no perfumes from Paris or *ittars* from Kannauj can take that smell away.”

The voiceover narration for *A Terrible Beauty* went through a phase of experimentation in rhythm, structure and form. It seemed at one point that the film would be a reflective memoir of the anonymous narrator who witnessed the creation of a new artificial world. It then morphed to become a fantabulous tale of the Miracle City and its inhabitants, and later emerged as Lucy and Blue’s speculative travelogue. Perhaps it has become all of these and more.

The relationship between the image and sound in the film is not one of illustration or explication. Rather it is one where the two create a universe where the reality of our lived experiences is layered with the fiction of our stories. If, for Donna Haraway, the boundary between science fiction and social reality is an optical illusion and, for Hartman, gaps in

historical knowledge can only be filled through critical fabulation, the process of making *A Terrible Beauty* proved to me that the gap in what we can know of the future could be creatively filled through a speculative fictioning.

Chapter 4

Relational Proximities: Companion Copies in Everyday Life

*Animism had endowed things with souls;
industrialism makes souls into things.⁹⁰*

(Adorno & Horkheimer, 2002)

⁹⁰ Cited in Smith (2013, p.317)

4.1 Introduction: Conversation with a nonhuman

In *Yakshaprashna*, one of the most enigmatic episodes in India's longest epic, *The Mahabharata*, Yudhishtira, an exiled king and the eldest of the five Pandava brothers, finds himself on the edge of a lake, having to answer a series of questions that will determine whether he and his brothers live or not (Debroy, 2015). Known for his wisdom and understanding of moral duties, this king ironically has to face questions posed by a nonhuman, a Yaksha or guardian spirit. From the definition of happiness to cosmological queries about the nature of the universe, the Yaksha's questions cover the circumference of life and include almost every conceivable form of inquiry. It is not surprising that a language game of this compendious nature would consist of numerous questions about the nature of human ties, the relationship of the self to the other and the obligations we owe to each other (Shulman, 2001). Most of the questions exist as standalone queries with no necessary relationship between one question and another. There is however a set of variations of one particular question – “who is a friend?” – which I find compelling and of value to my engagement with the world of Yiwu. The Yaksha asks Yudhishtira, “who is a friend at home? Who is a friend to one who is sick? Who is a friend to one who is about to die?”. And in one instance, he asks “who is a friend to one who is travelling?” (Debroy, 2015, 595(298)). Yudhishtira's answer is that a caravan is a friend to a traveller. This question, as well as Yudhishtira's response, serves as my entry point in this chapter. It is interesting that Yudhishtira chose to answer not in an individuated manner, as one might expect, describing the qualities of a friend, or indeed even in terms of any human attributes. He chose instead a much more ambiguous word ‘caravan’ which, in contemporary parlance would refer to the moving vehicle or the thing itself, but in *The Mahabharata* it refers to the motley assembly of people, animals, goods and objects that constitute a caravan. The word ‘caravan’ recalls a long history of trade, mobility and stories that have disappeared as well as stories that have survived. It also conjures a journey in which people, animals, goods and objects exist in a continuum rather than as discrete entities. This is particularly pertinent to my film, *A Terrible Beauty*, located as it is in Yiwu, one of the most critical nodes of the New Silk Road, but also for the themes that are explored later in this chapter.

While the riddling form normally privileges the question as the primary source of enigma, I suggest that Yudhishtira's answer appears to be as enigmatic as the question. I contend that the ambiguity of the word caravan requires a reformulation of the question, and it may be

more productive to ask, “who is the companion of one who is travelling?” rather than “who is a friend?”.⁹¹ The word friend seems to conjure an already established relationship of proximity and affinity, whereas the word companion simultaneously acknowledges the possibility of proximate ties even as it retains a degree of distance and difference. In my film, the unfolding relationship between time travelling companions Lucy and Blue and their journey through the spectacular multispecies world of Miracle City provide an unconventional vantage point from which we can look at the relationship between human and nonhuman entities.

Right from the time that I conceived of Lucy and Blue as the central characters in the film, I was interested in maintaining an ambiguity about the nature of their relationship. I, therefore, provide very little narrative detail about who they are, how they met, or exactly what brings them to Miracle City. Rather than choosing terms such as friend, colleague, lover, all of which come with well-defined set of connotations, I worked with the idea of them being “companions”, as the term indicated a certain relational proximity even as it did not foreclose the possibilities of ontological tensions and difficulties involved in their being companions. In *A Terrible Beauty*, Lucy and Blue move through a multiverse inhabited by traders and workers, automaton animals, plastic dolls and robots capable of intelligent conversation. All these people and objects are an essential part of the everyday world of Yiwu, but within the narrative logic of my film, they all become inhabitants of Miracle City, each with a unique perspective on Miracle City. This was also an essential aspect of my fictioning practice – to use absolutely ordinary and banal spaces and the infrastructure of the markets and factories and to render them fantastical.

In many ways the world that the two characters traverse is indeed the ordinary world that all of us inhabit and in which we move with an ontological ease between the realms of objects and phenomena, stone and river, plants, animals and humans. Every once in a while, however, something happens to upset this ordinary ease, producing in its place a feeling of ontological unsettlement, such as in the news of a sex doll serving multiple clients during the isolating lockdowns of the Covid-19 pandemic (Shepert, 2020); or a man with an emotionally intimate relationship with his android lover (Kovalchuk, 2019) or in accounts of people who transform themselves to look like dolls (Linning, 2017) and mannequins (Niechajev &

⁹¹ The question of friendship has been an animating concern within political philosophy, and most famously revived by Derrida (2005) in recent times. My only interest is in a narrower question and to distinguish the idea of companionship from friendship.

Haraldsson in Bourke, 2011). Often this unease is produced when we encounter inanimate objects imbued with a lifelike quality, and we are forced to contend with the personhood of things (Johnson, 2008). One of the challenges in *A Terrible Beauty* was to locate these moments of uncertainty not as dramatic moments of rupture but as ones in which the boundaries between these different entities are negotiated and made sense of in the ordinary course of living. This is not to suggest an absolute equivalence or absence of a qualitative difference between encountering a lifelike android and a puppet, but to locate them on a continuum of ways in which humans have always had to re-examine the boundaries of where they begin and where they end. Thus, rather than seeing these moments of ontological uncertainty as an undermining of what it means to be human, I will in this chapter elaborate on the idea that to be human is to be human *with*.⁹²

4.2 Being human *with*

While Yudhishtira's answers enable him to articulate his humanity, we should not forget that the questions were posed by a nonhuman force and in that sense the project of expressing one's humanity has always been in collaboration with nonhuman entities and beings. It is only conceit or amnesia that allows us to imagine this dialogue to be a one-way monologue initiated by humans. A dialogic approach to the question of what it means to be human reminds us that it is always an incomplete project and a terrain of contestation. Joanna Bourke (2011) demonstrates that for much of history, most of humanity (from slaves to women and children) were indeed left out of the very definition of the human. If, in the early 21st century, this question has been posed again in response to transformations in the realm of the biological, the ecological and the technological, I see it as a welcome opportunity to continue the conversation from possibly newer vantage points. Rather than recycling the assumption of humans as privileged species who undeniably belong to the realm of the natural, it would be useful, in the

⁹² Later in this chapter I will discuss in greater detail Donna Haraway's claim of how being human has always necessitated an understanding of being human *with* other species

context of the long history of earth, to remind ourselves, that it was not too long ago that humans ceased to be animals.⁹³

In *A Terrible Beauty*, I have tried to use the peregrinations of Lucy and Blue as a perceptual tableau that allows us to revisit the idea of what is ontologically unsettling and see it as an ontological opportunity. In a sequence in the film which was shot in Binwang Park in Yiwu, I position Lucy amidst idyllic nature to capture a meditative quality that she has with her surroundings.⁹⁴ This is of course a setting that is easily recognized by anyone familiar with the tradition of Chinese nature poetry, where a contemplation of nature was indistinguishable from a contemplation of one's own being (Hinton, 2010).⁹⁵



Fig 4.1 : Lucy and Blue in Binwang Park, Yiwu. Production Still.

⁹³ It is important at this stage for me to clarify the precise contours of what I mean by human-nonhuman relationships. While the taxonomical distinction of human from nonhuman covers a spectrum ranging from humans, animals, things and other natural entities, the principal focus of my research has been on the distinction between persons and anthropomorphic objects. In that sense even though humans and animals, or humans and plants are understood to belong to different species, they are understood to have a closer proximity by the fact of their being natural or sentient beings. In contrast, there is a much greater ontological distance perceived between humans and things by account of the non-sentience of the latter.

⁹⁴ The park is named after a Tang dynastic poet Luo Binwang whose family came from Wuzhou, modern Yiwu.

⁹⁵ An axial concept in Taoist cosmology is *tzu-jan* which literally translates into “self” + “thus”, and a contemplation of the unfolding of being or the emergence of the self is enabled by a spiritual understanding of the self as one amidst 10,000 objects that move between presence and absence. David Hinton claims that this is fundamentally different from the breach that occurs in dualistic Western thought that clearly divides between nature/culture, human/nonhuman.

In the sequence, however, the pastoral idyllic is rendered odd by the fact that the reflections that you see in the pond are of high-rise buildings that circumscribe this garden. The juxtaposition of contemplative images of Lucy simultaneously raises the question of what a mannequin can add to the unfolding poetics of being, even as it discreetly hints at the intermingling of the natural and the built-up world. There is indeed a dissonance in the fact that pristine gardens are maintained amidst the urban sprawl. Their surroundings highlight their artifice and the recreation of the natural world lends them a quality of being akin to ‘fake antiques’.⁹⁶ It would be simplistic to dismiss this kind of urban garden as a spurious attempt at recreating nature. However, I have tried to avoid arriving at too harsh and too quick a judgement about these spaces. Instead, I ask what would it mean to take seriously the underlying desire for these urban gardens, and by extension what would it mean to take seriously our attraction to flowers and plants – be they natural or artificial? The sequence cuts from the garden to an artificial flowers market where plants and flowers bloom under the warm glow of electric lights. I was interested in how film can itself be a liminal zone⁹⁷ that enables a passage from the natural to the human-made world and *vice versa*. As time travellers, Lucy and Blue are characters who are liminal beings occupying an in-between zone (Turner, 1965), and the journey that they undertake, as well as the subsequent conflict that they find themselves in is in line with our own ambiguous relationship with nature and technology.

On the one hand we find ourselves comfortably inhabiting a world of technology that eases many aspects of our life, even as we struggle with the increasing technologization of life, and find ourselves reaching out to the domain of the natural world as a desperate gesture of survival. Does this paradoxical situation that we find ourselves in account for my choice of two travelling companions who are individuals even as they seem conjoined? Is the constitutive split between them symptomatic of the split that we find in ourselves? We form affective attachments to our devices, name our computers and hard drives, even as we seek liberation

⁹⁶ This is a phrase coined by Sudipta Kaviraj in *The Imaginary Institution of India: Politics and Ideas* (2010), to describe the artifice of newly found nations that hark back to a timeless civilizational history.

⁹⁷ The term liminal comes to us from the anthropologist Victor Turner (1970) to describe in-between or transitional states marked by immense possibilities of transformation and metamorphosis. Interestingly its technical meaning within psychology has many overlaps with cinematic experience as the term pertains to a sensory threshold which lies at the borderline of perception. Thus, if on the one side of limen (or threshold) you have a clearly perceivable stimulus, then on the other side it is not perceivable, but at the limen or liminal, there is a minimal sensation that is perceived, that makes it difficult to distinguish between the one side and the other. For my purposes, this serves as extremely productive register through which I can think of my film’s use of Lucy and Blue to blur traditional binaries.

from our reliance upon them. We are neither entirely human nor are we entirely machine, and it is the dialectical dance between the two that serves as the tussle at the heart of contemporary personhood. This has understandably led to markedly opposing positions where often people have either championed an absolute embracing of a technologized version of the self (Warwick, 2004), or others who have advocated the need to turn away from technology and return to a more ‘authentic’ version of human experience (Turkle, 2011).

To be forced to choose between the one and the other position would presume from us a confident certitude, as though it were a matter of public policy that we are evaluating rather than dilemmas of our life. Nietzsche (1998) had famously asserted that to be done with morality was not to do away with ethics, and for him, to discard the idea of universal morality as theological fiction did not necessarily lead to moral nihilism. Instead, it required of us an ethical inventiveness that is more challenging than any formulaic idea of a pre-defined morality. It is time perhaps to rework this proposition for our times, and to say that to be done away with the natural is not to do away with the question of nature. It is instead to acknowledge that the commonplace distinction between nature and culture, rather than being a naturally ordained divide, is instead a much more tenuous and even fictive barrier that has been erected to cordon off the idea of the human from the nonhuman.⁹⁸

In *A Terrible Beauty*, Lucy and Blue witness the preparation for the Garden of Eternal Bloom and they learn that the flowers remain forever fresh and leaves never fall from trees. A part of this sequence was shot in an artificial flower factory and focuses on the making of these “Forever Flowers”. In contrast to the general idea that one may have of how these plastic ‘mass produced’ goods are machine-made, we see workers meticulously crafting them with their hands. I was told in a conversation in Yiwu that there used to be a tradition in artificial flower making where women who made these phytomorphic forms blew their breath into the flowers once they were complete, metaphorically breathing life into their creations before they were dispatched to the market. I did not witness this ritual in flower factories in Yiwu but the hearsay account certainly added to my attempts at understanding the contours of human-nonhuman

⁹⁸ For detailed discussions on moving beyond nature/culture see Descola (2005), Kohn (2013). Descola, for instance drawing on ethnographic examples argues that culture – as a human endeavour of making (art, language etc.) , and so forth – is contrasted from nature – but this difference is both specifically western and relatively recent. His own framework relies on the articulation of ontologies that are cognizant of animism and totemism to move beyond the binary.

relations. Later in this chapter, I will explore breath as the animating life force in objects and things but for now I will return to Miracle City where the narrator tells us that objects of Miracle City not only see and hear but they also speak – perhaps at a frequency where not everyone can hear them but Lucy and Blue certainly can. In these visuals, I have attempted to shoot from the point of view of these things looking at humans as they go about their daily business – a woman shopkeeper practising the hula hoop when there are no customers around, a young shop-owner taking a smoke break. The sound of the speculative talk of the objects of Miracle City is at times a barely discernible whisper, but at times the audience can hear them speak. The viewer is invited to enter in a pact of conjecture with the filmmaker, the objects of Yiwu and the Forever goods of Miracle City.

While filming in the flower market, I often wondered whether these traders who live and work amidst a plastic paradise, pick up a bunch of lilies and roses on their way home? Do they experience an uncanniness when they receive a bouquet of flowers on a special occasion? If the poets don't consider these plastic flowers worthy of being their muse, would an android in the near future, capable of composing original verses, write a few stanzas in praise of these forever flowers? In one sequence we hear the narrator invoking the dead ancestors of the forever flowers and the slow becoming of oil over millions of years. The segment ends with Blue attempting to smell the flowers only to realise that what she smells is the scent of immortality.



Fig 4.2 : Wang Xinlu at an artificial flower market, Yiwu. Research Still.

In a previous chapter I have discussed how speculative fictioning allowed me to play with perspective and reverse the traditional point of view of subject and object. Once I was free from the customary vantage point of the human looking at objects, I could experiment with other frames. This was not merely a matter of technical freedom for the camera; it instead required me to speculate on what it would mean to imagine an object in a marketplace looking at people. Would it distinguish between the more familiar human companions who were a part of their everyday life, from the casual passers-by to potential customers? Of course, I was also beset with fundamental questions about whether it would ever be possible to inhabit or even imagine what it means to be another being or think like another being, but then these are questions that have plagued philosophical enquiry for centuries. Can one truly know what goes on in another's mind? How can one distinguish between physical acts and mental states?⁹⁹ Even assuming that one will never ever be able to solve this problem in its entirety, one of the philosophical responses that has emerged to this challenge of other minds is the question of acknowledgement. Even if I am aware that I'm not able to completely inhabit or understand the mind or being of another human, if I'm able to acknowledge them as sentient beings capable of feeling, thinking and acting in the same way that I am, it opens up the horizon of my responsibility to them. If this is true of our relationship to human minds, the question that follows is whether there would be similar ethical obligations that arose out of our acknowledgement of non-sentient objects and things?

At the end of her book *Persons and Things*, Barbara Johnson (2010) says that whenever we even use the phrase 'persons and things' we imply that there is a difference or even an opposition but what if things are all we know? If we consider ourselves persons, Johnson says, then the relation between persons and things can contain only one person. Moving beyond the seeming binary, Johnson says that our existing relations with things are already affectively charged with hopes and fears that we reserve for people, and a less bifurcated approach between persons and things will enable us to answer better the question of what it means to be human.

⁹⁹ In philosophy one of the abiding questions has been the "other minds problem". With developments in artificial intelligence, this question has been extended into the realm of technology. Beginning with experiments by Alan Turing, the question of whether machines can think has been extended into more sophisticated realms including the question of legal culpability and the moral consequences of actions undertaken by machines and algorithms.

4.3 Nonhuman as a Companion

As mentioned earlier, I find the term “companion” to be generative and dynamic as it does not foreclose the ontological tensions and difficulties involved in understanding Lucy and Blue’s companionship.¹⁰⁰ In most cultures, while it is not unusual to see children with stuffed toys, dolls and puppets, the idea of a nonhuman travelling companion for adults remains an oddity, unless this aberration or exception is a part of genre conventions such as science fiction, speculative fiction or fantasy. To borrow from these conventions in the context of a documentary film was to think with the companionship of “human-nonhuman”, “person-object” as a conceptual question as well as a film practice. I shall return to this in greater detail later in the chapter.

As I discussed earlier *Mechanical Love* (2007) explores the terrain of human-machine companionship by situating itself in a world in which robots mimic human attributes of tenderness and affection, even as humans learn to appreciate the grammar of mechanical love. To ask whether robots are capable of expressing warmth and displaying an ethic of care is to ask a very different question from whether robots and artificial intelligence will overwhelm humans. A sequence in the film for example focuses on the interactions between residents of an old people’s home and Paro, a pet therapy robot designed as a baby seal to fulfil some of the emotional needs of the elderly. While the inventors of the robot had initially contemplated using a pet cat, feline robots were found to suffer from an affect deficit compared to baby seals. In *A Terrible Beauty*, I similarly investigate companionship between humans and robots and the emphasis of my film is on emotional expressivity seen not as some exclusive possession of humans, but as a technique or techne of life to be perfected through technological innovation that relies on a deeply empathetic understanding of the emotional needs of people.

¹⁰⁰ There are different philosophical and mystical traditions which have engaged in similar speculative exercises. For instance, the theosophists have drawn from Tantric Buddhism to develop the idea of “Tulpa”, which could be an imaginatively willed being or even an object. These mentally created beings are considered to be sentient and independent of the mental processes that willed them into being. Rather than treating these beliefs from a narrow dogmatic perspective of the validity of their truth claims, I find it generative to look at them from a speculative lens and see them as thought experiments that extend the possibilities of what can be thought. It is also humbling to remember that many of the philosophical concepts that guide our lives are themselves the product of speculative thought experiments. Interestingly, the term Tulpa has seen a resurrection in the 21st century to include willed or imaginary friends after adult fans of *My Little Pony* (2012) began using meditation and lucid dreaming techniques to create Tulpas of characters from the show (Thompson, 2014).

A Terrible Beauty invites the viewer to think of the relationship of the human to the technological not in instrumental terms, nor merely as a means to an end, but in a constitutive manner whereby the relationship of humans to technology is an ongoing process or means of becoming who they are. In this regard, I consider Bernard Stiegler to be a constructive interlocutor in developing a non-instrumental understanding of technology. Stiegler employs the term *technics* to encompass various modes through which humans have depended on processes of exteriorisation of the self (Stiegler, 1994). Whether in the form of primitive tools, weapons or extremely sophisticated computational devices, Stiegler imagines technics as “the prosthesis of the human” (Roberts, 2007, p. 26). In that sense the relationship of humans to technics is a co-constitutive one, and humans are constituted by their technologies, while the evolutionary history of the human is inseparable from technologies that exteriorize the human self and human functionalities.

Lucy and Blue’s narrative serves as a scaffold beneath which the real adventure of “being human *with*” is played out. Narrative cinema has generated a range of companionship forms, including the road film, the buddy film, etc., and I was keen to deploy the narrative tropes and conventions of a travel film in *A Terrible Beauty*. However, in this case, the journey of the two characters is as much about reaching each other as it is about the fulfilment of a quest. As I filmed more with Lucy, I started becoming specifically interested in how the use of an object imbued with life could itself serve as a metaphor for the process of speculative fictioning in documentary practice. In effect there was a doubling of the process of companionship. If Lucy and Blue are the travelling companions within the narrative world of *A Terrible Beauty*, they were also my most consistent companions throughout my time in Yiwu and, in that sense, the film is simultaneously a biographical record of my journey and companionship with Lucy, the mannequin and Blue or Xinglu Wang, my translator and assistant.

4.4 A turn from “Companion Species” to Companion Copies

In Chapter 3 in the discussion on research methodology, I worked with Donna Haraway’s concept of “SF” and the productive uses it can be put to in speculative practices. I now turn to her work on companionship across species. Haraway’s early work sought to undermine the fiction of the human subject as the privileged site from which the world can be

thought and measured. Rather than seeing the realm of the human as one that was distinct from the sphere of animals or machines, Haraway interrogated the boundaries that separated the one from the other. She posited that these boundaries were porous, and humans, animals and machines existed on a spectrum or continuum, and humans were better thought of as an assemblage of technology and biology. Extending her interrogation of the supposed autonomy of the human subject, Haraway has more recently turned her attention to the relationship between species. In particular, reflecting on her own lifelong relationship with dogs, Haraway examines the ontological and ethical consequences of the relationship between humans and domestic animals (variously called pets, service animals or therapy animals). She argues that the relationship that develops between and across species needs to be thought of in terms of companionship and she chooses the term “companion species” to describe the ontological transformation brought about by the relationship. We hear echoes of her earlier work in the opening paragraph of her book, *When Species Meet* (2008), with Haraway delighting in the fact that,

“human genomes can be found in only about 10 percent of all the cells that occupy the mundane space I call my body; the other 90 percent of the cells are filled with the genomes of bacteria, fungi, protists, and such, some of which play in a symphony necessary to my being alive at all, and some of which are hitching a ride and doing the rest of me, of us, no harm. I am vastly outnumbered by my tiny companions; better put, I become an adult human being in company with these tiny messmates. To be one is always to become with many.” (Haraway, 2008, p. 4)

This idea of becoming with many or becoming with others unlike oneself lies at the philosophical core of her book, but if the focus of her earlier work was on animals in the wild, in laboratories or indeed organisms inside the human body, this time around she turns to the domestic space to look at rather ordinary encounters between humans and animals. I would suggest that this turn to the domestic and the ordinary is crucial to the conceptual shift that she is making, away from an ontological unsettling of the category of the human towards a different kind of unsettling which is based not just on difference, but also on the possibility of relational proximities between humans and other species.

Tracing the etymological history of the word companion from its Latin roots “cum panis”, or “with bread,” Haraway proposes that the idea of a companion ranges from being

tablemates to commercial associates and sexual companions (2008, p.17). But underlying all of them is the idea of a relational form which is dependent on the active participation of another, and while sociological enquiry in the form of kinship studies and network studies has focused on every aspect of these relational proximities, it has tended to do so only from within the perspective of intra-species relationalities.¹⁰¹ What happens, Haraway asks, when we start thinking of animals who live in our proximity as companions or species that we break bread with? But where Haraway is primarily concerned with the relationships between two sentient forms of life (even if they are of different species), I was intrigued by whether one could extend her insights into the domain of sentient/non-sentient interactions, and I propose that it may be useful to think of these mimetic objects¹⁰² as our *companion copies*. I use the term companion copies to refer to a wide gamut of objects that mimic organic forms of life and perform affective labours of companionship, from toy dolls that are an integral part of the lives of children to sex dolls for adults and animal robots that serve as companions to the elderly.

For Haraway, a companion is someone who expands our own experience of being and relationships but companions can also unsettle any presumption we have of a stable self. Her warning serves as a useful caution for us, to ensure that we do not harbour romantic or naïve presumptions of interspecies relationality, or in my case the relationship between humans and companion copies, without simultaneously being aware of the possibility that companionship itself can go terribly wrong. Numerous cultural texts, including Hoffman's iconic story *The Sandman* (1982) published in 1816, are testimony to the immense cultural anxiety that these copies have generated. One such apprehension that I explore in *A Terrible Beauty* is the inherent tension between mortality and immortality. The Forever Flowers, Forever Child and eventually the Forever Companion are bound to outlast the humans who possess them.¹⁰³

In the sequence on Forever Child, filmed in a doll factory, I have a sequence with Blue in a room filled with discarded moulds which had served as models to make dolls. In the case of Miracle City, these dolls are not toys for children but objects in lieu of children for adults. In *A Terrible Beauty*, the moulds in the Forever Child factory are outdated, defective and waiting to be discarded. In this sequence I hoped to capture the dissonance I felt in my

¹⁰¹ For an intriguing exploration of inter-species kinship see Govindrajana (2019).

¹⁰² In an earlier chapter I have discussed the mimetic aspect of objects in Yiwu through an engagement with Walter Benjamin, Michael Taussig and Hillel Schwartz.

¹⁰³ For an compelling discussion on the tension produced by the material longevity of objects see Timothy Morton's notion of hyperobjects (2013).

encounter with these anthropomorphic forms. Had this pile been a reject of plastic mugs, photo frames or some ubiquitous item of everyday use, I would not have been affected in the way that I was, but because the moulds were closer to a human form, the encounter unsettled and discomfited me. I chose therefore to film this sequence in a manner that believed in the possibility that these ordinary dolls were more than just comforting toys for children, and instead they were the ‘forever’ children of Miracle City, born and unborn. Unlike other ordinary objects of everyday use like clocks, pens, books and other the objects which do not have ‘eyes’, in the case of the moulds of the dolls, I found myself having to avert my gaze from theirs. Their inert eyes generated an uncanny moral effect on me. The image of these little mountains of rejected or deformed baby replicas reminded me of documentary images of piled up bodies from photographs of wars. At a rational level it of course did not make sense to compare bodies of dead people and bodies of rejected dolls, but there was something unnerving about the forlorn affect that this room of discards produced in me, and my thoughts at that moment are perhaps reflected in the film when the characters wonder whether Miracle City destroys more than it produces.



Fig 4.3 : Blue with an unmade doll. Research Still.

What exactly is it about objects shaped in a human form that enables them to make moral claims on us even when they share exactly the same material properties as other objects that we would nonchalantly ignore. The mere presence of two eyes on the face of a doll or mannequin seems to transform the expectations and obligations that accrue to these objects. The specific form of these objects seems to enable a process of projection and transference of

human attributes upon these objects. If moral obligations produce an imperative stance towards another, they necessarily arise out of a preliminary act of acknowledgement of another. This is however not just a matter of a moral cognition but equally a matter of a perceptual cognition, and moral sensibility on this count is entangled with regimes of visibility. The visual presence of another is what makes it more difficult to be unaffected by the moral claims that they may have upon us. It is therefore not surprising to find that the word species itself has a visual etymology. Haraway traces the visual roots of species to “specere” (to look; to behold and incidentally same as for speculative), accounting perhaps for the fact that an awareness of species is as much about mental impressions or modes of perception as it is about taxonomic categories (2008, p.17). The social divisions between “us” and “them”, “insiders” and “outsiders” are therefore simultaneously political categories of belonging, even as they are moral and perceptual categories of who counts and who doesn’t within the calculus of empathetic attachments. Even before social categories such as kinship, religion and nationalism staked their claims on affective attachments, it was perhaps the distinction of species that performed the primary function of differentiating between the one and the other. Therefore, to perceive oneself in terms of belonging to particular species simultaneously entailed a clear idea of the boundaries that separate your species from that of another.

However, if the idea of species has always been a category of separation and distinction, the actual relationship across species and the rich history of multiple forms of affinities between humans and animals allows us to think of species not merely in terms of separation but also in terms of unions or as Haraway says “species is about the dance linking kin and kind” (2008, p.17), and who would know better about category dissolving dances if not people who dance with their cats, dogs and monkeys? These relationships have been characterised by certain dominant descriptive words such as master, owner, carer etc., all of which are marked by an implicit hierarchy, but what the language of companionship allows us to do is to look instead at species interdependence.

Anna Tsing evocatively captures what is at stake in the idea of species interdependence in our “entangled” (Tsing, 2015, p. vii) ways of life. Recognizing the imperative of mutual survival in the anthropocene, Tsing, when speaking of the decay of late capitalism, suggests that to end with decay is to abandon hope, and what is required for our survival is a collaborative instinct in which we, as humans, solicit the help of nonhumans. Tsing has in mind encounters with organic matter, and she encourages us to embrace the possibilities of our

contamination through encounters, concluding that contamination is collaboration (Tsing, 2015). But why stop at organic matter? If it is the world of objects and things which is indeed contaminating the natural world, is it time to declare a ceasefire and suspend our agnostic stance to things, and ask if we can instead solicit their help to collaboratively survive? Can we extend to things the kind of veneration that Haraway and Tsing exhort us to accord to other species?

In making *A Terrible Beauty* I have been very conscious of the visual roots that underline the idea of how we see species in terms of difference and sameness. Using the transaction of looks between Lucy and Blue, and between other inanimate objects and people, I have attempted in several sections of the film to create a visual blurring of boundaries between the human and nonhuman. Even in ordinary encounters with dolls, mannequins, androids or other lifelike objects, one feels uneasy looking directly at them – eye to eye. It is as if one is forced to engage in an imaginary conversation in one's head with the object that one is looking at. In *A Terrible Beauty*, I have used several shots of Lucy's eyes, looking at the world around her and at the camera. The viewer is often forced to look directly at Lucy and make eye contact. This for me was a way of making the viewer feel both a proximity to Lucy, even as it produces the disconcerting quality I have earlier spoken of. The uncanniness of such visual encounters perhaps accounts for the discomfort that many people have in the face of humanlike objects. Having Lucy in my room, I would find myself occasionally aware of her presence and gaze, but if it had been initially unnerving, over a period of time it also became reassuring.

The sequences of Lucy and Blue in the bedroom were a direct consequence of spending many weeks with Lucy's head staring at me from the tiny desk opposite my bed. I replicated our silent choreography of gazes in the sequences between Lucy and Blue, and the speculative dialogue that I gave them was based on the many conversations I had with her in my imagination. In the course of time, I started considering her a totem and lucky charm that supplemented a worry doll given by my sister and a *tahveez* (amulet with a prayer) that my mother had given me for my protection on the trip to Yiwu. I would carry Lucy's head with me every day, even when I was not shooting with her. Working alone in a foreign country has its challenges and I often returned tired and alone to my small studio apartment – which itself was reminiscent of a doll's house decorated in pink and plastic that I had as a child. In the confines of that room, and in the loneliness of language in a foreign country, it was comforting to have Lucy's reassuring presence.

The question I was interested in is whether one can think about companion copies as one does companion species. Haraway's companions are sentient beings whose living presence recasts ideas of relationality, ethics and obligations to another. The category allows us to move past the anthropocentric privileging of the human as the measure of all things, but what puzzled me was whether replacing sentient beings with non-sentient objects that stand in for living creatures would still satisfy the conditions of companionship set up by Haraway. From stuffed toys to action figures in the lives of children to mannequins, sex toys and dolls and androids in the adult world, the idea of companion objects has always exceeded the idea of living beings, and yet their quotidian presence somehow defies and challenges our ideas of companionship. This can be illustrated by one of the most intriguing and thought-provoking phenomena, the Tamagotchi pets¹⁰⁴ of the 1990s. They were a handheld digital pet that replicated the lifecycle and needs of pet animals through the incorporation of hunger meters, happy meters, play meters. When ignored, the Tamagotchi could die, and die they did. So much so that in many cities all over the world they were buried in pet cemeteries (Cherrell, 2021). Companionship in this account is certainly different from the kind of species companionship that Haraway speaks of, but the conceptual question that remains is whether the difference is a matter of degree or of kind. Additionally, we have to ask, what forms of relational proximity, ethic of care or affective affinities are engendered by such forms of companionship?¹⁰⁵

4.5 The animism of the Companion

I suggest that the idea of companion copies may therefore serve as a useful bridge concept between these different traditions of scholarship and thought. What seems to be conceptually baffling about these copies is that they neither satisfy the criteria of being proper companions nor do they fit within the idea of species, and a significant part of this failure seems to stem from the fact that while being life-like, they do not actually possess life. But what exactly does it mean to claim that a particular object or entity does not possess life in the manner that another can be said to? How did the distinction between entities capable of

¹⁰⁴ Created in Japan by Akihiro Yokoi of WiZ and Aki Maita, Tamagotchi was a fad in the 1990s and early 2000s. In the first two generations the toy could die in less than half day if it was not adequately cared for. In many instances, children took it to school leading to disruption of school work.

¹⁰⁵ In the field of child psychology, there has understandably been a reasonable amount of interest in the relationship that children have to imaginary friends and companions (Taylor, 2001), and in the field of literary studies there is equally an interest in the ontological nature of fictional characters (Iser, 1993).

possessing life and those incapable of possessing it emerge? Is a question of life as an attribute of an entity or object merely a matter of scientific fact or is it a question of cultural and religious beliefs as well? We know for instance that right through the history of humanity there have been many cultures that do not necessarily distinguish between sentient and non-sentient entities, and in such animistic cultures there was absolutely no difficulty with attributing a living soul to plants, inanimate entities and even natural phenomena. Cultures informed by animistic beliefs such as those in South and East Asia do not see any paradox in inhabiting modernity even as they believe in the possibility of mountains and trees possessing a living spirit.

Within Western modernity however, there has been a much sharper demarcation between animate and inanimate entities, and indeed one of the processes of modernisation involved the rejection of earlier pagan or religious belief in inanimate objects, relegating these beliefs to the domain of superstition. It would be difficult to imagine modernity without pivotal binaries such as nature/culture, tradition/modernity, religious/secular and reason/superstition, to name just a few, and modernity has been underwritten by a logic of separation which scholars describe as the “great divide” (Franke, 2020, p.11). These divisions are sustained through labours of taxonomy, classification and partitions that are naturalised as though they were a universal fact. This naturalisation denies the role of history in ascribing to modernity a progressive telos, while confining what fell outside of modernity to the realm of the backward (Latour, 1993). Historically, it was also the basis for distinguishing modern from premodern societies, and the basis of the justification of colonialism as a ‘civilising’ project.

Anselm Franke in his 2020 show *Animism*¹⁰⁶ proposes that we see animism or the belief in the living spirit that inheres in objects and things as one amongst many nodes that help us make sense of that great divide of modernity, nature-culture (Praet, 2014). The term animism was coined by the 19th century anthropologist Edward Tylor in his influential book *Primitive Culture* (2016) which shaped the development of colonial anthropology as the cultural study of primitive societies by ‘civilised’ ones. Tylor coined the term animism to describe the “primordial mistake of primitive people who attributed life and person-like qualities to objects

¹⁰⁶ Anselm Franke curated two exhibitions on animism. The first in HKW in 2012 and the second as a digital exhibition and research project released on the internet in four episodes in November 2020. It was also accompanied by a special *e-flux* issue and an accompanying catalogue.

in their environment” (Franke, 2012, p. 11). Tylor’s theory was premised on the inability of ‘primitives’ to distinguish between different kind of objects and to discern the real value that underlies them. They lacked in other words a proper understanding of the logic of classification and division that would have enabled them to differentiate between object and subject, science and superstition, reality and fiction and this lack facilitated a false projection of life into lifeless objects, or a ‘human spirit’ into animate and inanimate life forms which were not properly human. Predictably, Tylor located animism as a practice found amongst the “lower races,” and “savages.” Franke contends,

The distinction between life and non-life is perhaps the most fundamental one in modernity, explicitly as well as implicitly qualifying its notions of objectivity and the laws of nature, the divisions between subjects and objects, material and immaterial, human and nonhuman. It is, at the same time, the most unstable of divisions, having an instability that finds its expression in bioethical debates, technophobias, and the gothic imaginary and unique importance the experience of the "uncanny" holds in modern aesthetics as a borderline condition in which the inanimate turns out as animate and vice-versa.” (Franke, 2020, p.23)

While the term primitive has been subsequently discarded because of its colonial motivations and provenance, Franke, in his introduction to *Animism* (2020), provides a compelling argument for why the term animism may still have contemporary resonance. In sharp contrast to the pejorative sense in which the term was used to refer to non-European practices, there is an acknowledgement of the rich philosophical and conceptual valence of the term in our times. Franke makes a compelling argument to show that animals did not completely disappear from the realm of Western experience. He suggests that while Western science may have clearly demarcated a difference between living and non-living things, in the world of art and image making we see the persistence of animist beliefs and practices, even in the context of the West. The language of vitality and liveliness that permeates the production, reception and circulation of artistic and filmic images is evidence of the persistence of animism, even as it allows us to imagine forms of artistic and image-making practices that can self-consciously deploy the frame of animism. Franke argues for a redeployment of the term and suggests that animism allows us to engage with “the subjectivity of the so-called object” (Franke, 2012, p. 49).

May Adadol Ingawanij (2013) has similarly found the term to be useful and, in her writing on cinema, utilises the concept to argue that the films of Apichatpong Weerasethakul redefine our traditional understandings of realism through an incorporation of the concerns of animism (Ingawanij in Pick & Narraway, 2013). The figure of the human in these films occupies a much more porous and liminal zone shared with animals, ghosts and otherworldly creatures. In contrast to genres like fantasy, Ingawanij argues that Weerasethakul's realism does not presume the centrality of the human as the privileged subject experiencing reality. The filmmaking instead, following a philosophy of animism, "makes real the permeability of human and nonhuman worlds" (Ingawanij, 2013, p. 91). Animism, Ingawanij suggests, widens the perceptual paradigm of cinema by articulating a conception of the self which is porous and open to a multiplicity of life forms (2013, p.91).

In *A Terrible Beauty*, I build on a similar sensibility, but in addition to the familiar subjects of animism (rivers, mountains, trees), I look for ways in which filmic practice can engage with a 'living' force within 'companion copies'. While the divide between animate and inanimate entities is based on the distinction between things that have something that qualifies them as living against things which are devoid of this anima (breath, soul force, vital force, vitality), the fact is that this distinction is one that has consistently been undone in cultural narratives.¹⁰⁷ The well-established narrative genres of cinema and literature where puppets, dolls and toys come to life testify to the persistence of the uncanny within modernity. They also reveal the residual remains of the 'primitive' and the premodern that have not been totally displaced by the impulses of modernity. As noted earlier, Freud drew from E.T.A Hoffman's short story *The Sandman* (1816) to develop his theory of the uncanny.¹⁰⁸ *The Sandman* is a quintessential example of an entire genre of pathological automaton tales that serve both as cautionary moral fables about the dangers of technology and the loss of the authentic human self. Animism provides a sharp contrast to the pathological accounts of human-object relationships, and a central concern for my film has been to find ways of bringing the two traditions – animism and animal companionship – together to argue for the possibilities of imagining a human-copy companionship, a term that attempts to seriously engage with proximate relationships that people develop to objects that do not possess human life, and yet can possess a life force.

¹⁰⁷ See for instance *Vibrant Matter: A Political Ecology of Things* (Bennett, 2010)

¹⁰⁸ Incidentally, the entry for "uncanny" on Wikipedia has the image of Ripliee Q2, an actroid with a strong human likeness developed by Osaka University.

The most compelling account of such a relationship came to me via Ken Liu's short story *The Paper Menagerie* (2011), and I have found his text to be an important 'companion piece' for my film.¹⁰⁹ The central questions of animism are at the core of the story: what does it mean to believe that inanimate objects can have a life force? And how does our relationship to these objects bring us within a force field where our life force and theirs become interconnected? On the most basic plane, *The Paper Menagerie* is a thoughtful meditation on forms of intimacy and companionship that we can have with paper animals and unfolds through the memories of Kan, the main protagonist. Kan's mother made him a paper tiger when he was a child and this tiger "laohu" becomes the first of many animals in a paper menagerie that form the basis the story. Made from the leftover wrappings of Christmas gifts, she folds the wrapping into a little box, and literally brings the tiger to life by blowing her breath into the paper,

She breathed into them so that they shared her breath, and thus moved with her life. This was her magic. (2011, p.179)

Over the course of the story, the menagerie grows, but the animals are never described as toys, and Liu instead uses an intimate language of friendship and care to describe their companionship. The protagonist's relationships to his mother and to his animal companions are animated by a life force or a living force which is as much cultural as it is personal, and there really is no distinguishing between her breath as an expression of her life, her language or the spirit that vitalizes Kan's "companion species".

Earlier in the chapter I referred to the practice of flower makers in Yiwu blowing life into the flowers before they left the factory. One could ask whether the workers actually believed they could bring flowers to life by blowing a life spirit into them. But to ask this question is to imagine life, and by extension what is living, as some objectively quantifiable form of energy which is separable from the actions and relationships that collectively constitute what it means to live. Why would a worker care about whether there is life or not in flowers which are going to be sent to unknown shops and from there onto cargo ships that will take the flowers to destinations which may not even be familiar to the worker? Perhaps there can be no answers to this question. It is not that the worker cares because there is life in the flower, rather

¹⁰⁹ The story became the first work of fiction to win the Nebula, the Hugo and the World Fantasy Awards.

there is life in the flower because the worker cares for it. Objects are brought to life through our relationships to them, even as our relationships to them are based on our belief that these objects have life in them. Outside of the narrow parameter that rationality draws around the definition of what is life, there have always existed beliefs and practices that attempt to expand the circumference of life by enlarging the domain of who (or what) counts as a living being or thing. It is perhaps this sensibility which is required of the viewer as they travel across Miracle City encountering a labyrinth of Forever Flowers, Forever Children, Forever Companions and Forever People. And it is this sensibility that is required of us to engage with the ever-expanding world of techno human interaction including the increasing incorporation of sensorial technologies, haptic technologies and artificial intelligence in automobiles, phones and household devices.

Towards the end of *A Terrible Beauty*, when the narrator goes in search of the missing Lucy and Blue and finally arrives at the Forever Persons Lab, the viewer encounters the most advanced version of a Forever good manufactured in Miracle City, the Forever Persons – lifelike robot dolls who are able to mimic human speech. Is there something about these dolls which distinguishes them from other beings that the viewer has encountered in the film earlier? Rather than seeing them as being more life-like, the film invites us to see these Forever Persons within the same orbit as their predecessors – the artificial flowers, the dolls, and the mannequins. Life inheres in them not as a natural attribute but as something that is grafted upon them through a poetics of making, an ethos of living and the cultivation of ontological respect. In any journey that is undertaken along with others, there is no guarantee that their company will transform them to be just like you or you just like them. What is certain though is that the journey, especially if it is a quest for being, will never be possible without a mutual collaboration in companionship.

Conclusion

As I reach the end of my research project, I cannot help but wonder about how different my film and research findings may have been if it were not for the Covid-19 pandemic. I had finished a majority of my filming in China in 2019 and had intended to return to Yiwu in the summer of 2020 to do some additional filming, but as we all experienced, the shape of the world changed drastically by early 2020 and we are still not entirely sure when the pandemic will loosen its grip on the world and our lives. At the height of the second wave in India, my family and I, like many others in the country, felt the full impact of the virus. As days blended into weeks and weeks into months, it seemed as if the virus had managed to gnaw away at time itself, and the one thing that seemed to lose all texture was an idea of the future. The experience of living with constant anxiety about the present and absolute uncertainty of the future naturally has had a strong impact on my project – which coincidentally enough began with the intention of opening up ways of thinking about the future.

In the early months of the pandemic, as I worked simultaneously on my film and dissertation, I struggled with some of the fundamentals of my project. What habitable futures could I imagine from amidst the ruins of the contemporary? What were the most acute anxieties that shape our thoughts about the future? My mother was on oxygen support for more than a month in the summer of 2021. She says it was the company of strangers – masked health care workers and the co-patients in the critical care ward – who kept hope alive. It seems that the greatest fear was not of enduring the illness or even death per se but being ill and dying alone, and what people looked forward to most was an end to isolation. All across the world, even as we encountered nightmarish scenarios, we also took solace in the myriad accounts of compassion, care and companionship that helped people – including my mother – survive. Thus, as I began the process of film editing and writing, the act of imagining a habitable future, made me feel less bleak and more hopeful (even if in small measures).

The research itself became my lodestone of survival.

In this concluding statement, I will revisit some of my initial intuitions, questions and insights developed over years of inhabiting the intellectual terrain of my research. I also reflect on some of the constraints and limitations of the project, map out my contribution to knowledge and finally gesture to some directions in which the research can be taken forward.

While writing this dissertation, one of the greatest challenges for me as a filmmaker was the risk of explaining away the film to myself. The poetic license of creative works resides in their refusal to be absolutely transparent and I believe that a certain sense of mystique is the birth right of all artistic works. And yet the demands of a practice-based PhD require for one to make analytical sense of one's intuition, and I do hope that, despite all that I have written about the film, there is still some residual enigma in the film for the viewer and for me.

My research project arose out of a need to make sense of some of the contradictory impulses that I felt after my initial trip to Yiwu. The scale of the space, the plastic universe of its manufacturing and trading context, the strangeness of being amidst so many mannequins, the comforting camaraderie of local strangers and foreigners, the repetitive rhythm of the factory worker churning out copies of flowers and miniature versions of ourselves, the aspirations of the small traders from different parts of the world foraging their small share of an affordable future – all of these images and experiences forced me to think critically about questions of consumption, of ecology, of labour but also of ordinary hopes and desires, of commerce and kindness, and most of all, of our relationship to these plastic versions of our environment and ourselves. It propelled me to frame a research project and to develop a methodology that did not iron out all the paradoxes and ambivalences I felt, but was nonetheless true to the fact that these multiple scenarios coexisted, both agonistically and in cooperation, with each other. It also shaped the emergence of the twin concerns of my research project – the methodological and conceptual. At the methodological level, I was keen to develop a practice that could locate documentary in a not-so-distant future and, by doing so, to be able to speak to the substantive philosophical question of what it means to be human in our time.

As we move to the end of the first quarter of the 21st century, it increasingly appears that what would earlier have been considered fiction has entered everyday life. It was therefore only appropriate that I turned to SF (science fiction/speculative fiction/speculative fabulation) as a way of exploring how documentary cinema, rooted in the real, could nonetheless imagine and build future worlds. When I began my project, I had not envisaged working with a travelling duo consisting of a mannequin and a human, but in retrospect it seems only appropriate that this would be the form that my narrative would take. From electronic seals that provide care to the elderly and robots that perform the affective labour of comforting a bereaved

husband to the banal instructions that we routinely give Siri and Alexa, we live in an era of cybernetic assemblages where the synthesis of biology, computer science and information technology befuddles the binaries of the natural and the technological, and recalibrates what is human and nonhuman. The breaching of these boundaries has always been a source of anxiety and tumult, best evidenced in Mary Shelley's *Frankenstein* (1982), one of the pioneering works of speculative fiction. Shelley's creature, a machine made of biological parts, sets into motion the possibility of imagining sentient copies of ourselves, but sadly, her rich account of complex personhood was quickly appropriated and subsumed by the language of the monstrous. A closer reading of the text reveals the tragic pathos of the creature – his profound loneliness – manifested as a perplexed plea,

“I had never yet seen a being resembling me, or who claimed any intercourse with me. What was I?”

(Shelley, 1982, p.117)

Could this question open out a way for us to think through the conundrums spawned by contemporary copies of ourselves, which, like the creature in Shelly's novel, exist at the cusp of human and machine. *A Terrible Beauty* uses the figure of “a being resembling me” to answer the question “what was I?”, and seeks to provide an alternative to accounts of monstrosity through the figure of a companion. Lucy and Blue, unlike Frankenstein and his creature, do not share a hierarchical relationship of inventor and invented. Instead, they travel in relational proximity as companions on a journey that holds out the possibility of a habitable future together. But as innumerable adventure films have taught us, the journey will always be a precarious one, and with no certainty that we may arrive at a safe destination. For Lucy and Blue, Miracle City is one such uncertain space where they are confronted with the question of matter, mortality and perpetuity in the form of the Forever Flowers, Forever Children, Forever Companions and Forever Persons. The plastic world of Yiwu simultaneously attracted and repelled me in what it intimated about the ordinary futures that we already inhabit. If, on the one hand, I was drawn to the seemingly democratic and equalising world of low-cost commodities and the ordinary aspirations and desires they seem to fulfil, I was simultaneously petrified by the prospect of the longevity of the matter that these objects were made of – plastic. It would be impossible for me to say that I have resolved any of these tensions and contradictions for myself, and perhaps arriving at any steadfast position would run the risk of a dogmatism that sacrifices nuance and complexity. Having said that, I have to add that the

experience of the pandemic significantly impacted the conclusion of the film. In an early iteration of my script, Lucy and the universe of Miracle City exist for perpetuity. The humbling experience of seeing how a tiny microscopic virus could bring the world to its knees prompted me to change the ending and arrive at a much more ambivalent position that does not take this perpetuity as a predetermined fact, but as a contingent one. The multiple times of the film (its shooting, its editing during the pandemic, and its gaze into the future) prompted me to conclude the film with an account of a bacteria that destroys Miracle City, not entirely though, because the film shows that Lucy and Blue survive as does the chronicle of their journey. Could I dare to imagine a future where plastic waste would be ‘eco-friendly’? Or of a future where the debris of our existence on earth doesn’t become the cause of our own annihilation?

While in *A Terrible Beauty* I plot the destruction of Miracle City, it is important to note that Yiwu and Miracle City are not absolutely coterminous. As I have often indicated, Yiwu was hospitable and generous to me, and I retain the greatest affinity for the city. Given its importance in transnational trade, it is surprising how few films or even scholarly works have paid attention to Yiwu, and those that do, tend to focus only on issues of trade and commerce. While Yiwu is allegorized in my film as Miracle City, I am also hopeful that the film contributes to an understanding of the city and that, through the transparent practice of fictioning, it is clear to the audience that the truth of Yiwu is more than what is communicated by the film.

A central premise running through *A Terrible Beauty* and this dissertation is the idea that there is nothing ‘natural’ about being human; it is instead a collective work of labour shared by a multiverse of entities and objects, and in that sense one can never ever *be human*, one can only learn to *be human with*. Speculative fictioning allowed me to experiment with what this form of learning may entail – as manifested in the conversations between Lucy and Blue. What Blue has to offer is a lesson learnt through centuries of human existence: the value of cultivating an ethic of care that comes from an appreciation of fragility and mortality. But rather than retreating into the confines of one's own being as an act of self-defence, Blue learns from Lucy the value of acknowledging humanity to be an incomplete project and the importance of being hospitable to a more expansive conception of the living spirit of things. Together, they ask how an ontological regard for persons and things may displace the conceit of anthropocentrism, and allow us to imagine the future not only as a threat but also as a space of ordinary cohabitation. In this regard,

the core concept developed in the film and thesis, “companion copies”, extends Donna Haraway’s insights into interspecies ethics and advances a proposition of developing an ethic of care towards objects and things. My conceptual contribution arose from the specific experience of working with a mannequin as one of the central characters in my film. Living with and learning to care for an inanimate object allowed me to develop the idea of “companion copies” which is simultaneously an affective and philosophical category that will hopefully prove to be a useful contribution to the discourse of human-nonhuman interactions. This nascent formulation, I hope, will contribute to knowledge about other traditions (including animism) which can inform contemporary sensibilities about the relationship between ecology, consumption and responsibility. The affective proximity of Lucy and Blue as companions asks us to think of what it means to think of what we owe to what we own. Once we rethink what it is that animates a thing (its materiality, the labour behind it, its longevity, its autonomy), we move from thinking about things to thinking with them.

That the “present can be other than what it is, and the future ought to be other than what the present designates it to be” is a sentiment that underwrites my entire project, and as a documentary filmmaker, my primary motivation in pursuing this PhD was to explore ways in which documentary cinema could participate in the building of such future worlds. If, for Hongisto (2015), documentary film is distinguished from fiction in that the world portrayed continues to exist outside of the frame of the film, I also believe that it does not just exist, but also unfolds and transforms in time. My film and dissertation ask what it may mean for documentary film to anticipate the world as it unfolds, and suggests that it requires of us a sensibility similar to the one expressed by Donna Haraway in her articulation of a “terrapolis” – documentary can speculate and invent a world by using reality but transforming it through a speculative gesture. My research project contributes to the domain of world building and documentary film by showing how documentary can use reality to imagine and create worlds to come. It adds to the emerging field of future studies and stakes a claim for documentary as a worlding practice that is similar to other fictioning practices, but as one that is open about its fictioning strategy even as it is cognizant of the truth behind the fiction.

In my project, the speculative gesture takes the form of an anticipatory politics and ethics of a world to come, and I name this anticipatory stance as companionship. If, as I have earlier suggested, “objects are brought to life through our relationships to them, even as our

relationships to them are based on our belief that these objects have life in them”, might we similarly imagine a future that is brought to life in the present as a living organism rather than as an inevitable wasteland? Speculative fictioning for me was an experiment of imagination, and like all experiments, we may never arrive at one conclusive truth, but what I do know at the end of my project is that fiction can often be truer than the truth.

Appendix

Voiceover script to the film *A Terrible Beauty*

[VISUAL: Yiwu city]

VOICEOVER: When I was young and yet to begin a life of travel and adventure , Ibn e Battuta the famous explorer told me that travelling will first leave you speechless and then turn you into a storyteller.

The main events of my story take place in Miracle City in the 21st century.

At this time, the city is a prominent metropolis on the New Silk Road. This is a route that encircles the entire globe and connects all the cities of all the continents.

People come to Miracle City from all parts of the world, and from different times as well.

[VISUAL: Train, people dancing at Dalian Railway Station]

VOICEOVER: Time Travelling protocols mandate that no one travels alone – especially when they venture into a future.

[VISUAL: Yiwu city roads]

[VISUAL: Jin Mao Towers]

VOICEOVER: The two people standing here are Lucy and Blue. They are seasoned time travellers and explorers.

They are also avid collectors of digital fossils from the 21st century. These artefacts are greatly valued by scholars of both science and mythology.

Lucy and Blue have travelled together for a very long time. It has been so long that they have forgotten the beginning of their journey.

[VISUAL: Yiwu city, restaurant]

VOICEOVER: They arrive in Miracle City in a moment of great transformation. In this time, humans have completely segregated themselves from the realm of animals, demons and Gods. But - boundary breaches of a different kind are becoming more and more common. Those who live and breathe and die are increasingly attracted to those who exist Forever.

[VISUAL: City]

VOICEOVER:

The mystique and aura of Miracle City is well-known amongst the community of time travellers - and it is often a favoured destination for the restless.

A pamphlet with a message from the city mayor welcomes the international traders to this astonishing sea of commodities

[VISUAL: Futian Market]

VOICEOVER: The defining feature of Miracle City is its large markets.

They sprawl the length and breadth of the metropolis.

Futian Market is the largest market in Miracle City.

It occupies a floor area of 5.5 million square meters or the equivalent of 7 hundred and 50 football fields.

Experts claim that if a visitor spends 3 minutes at every stall in this market, they would need three hundred and sixty-five days to finish a tour.

Futian market offers things that cater to every imaginable need and desire.

Traders spend years walking up and down these long corridors in search of new and unique merchandise.

The incredible variety of things seen here dazzle even the most seasoned traveller.

Shhh... and if you listen carefully you can actually hear everything speak!

Locals claim that what is in Miracle City may be found elsewhere, but what is not here will not be found anywhere else.

The exquisite goods packaged in bubble wrap, travel the world – in a bag, in a carton, in a container, on a ship braving the high seas.

How easy has the crossing of oceans become in this time... Lucy and Blue often marvel.

[VISUAL: Binwang Park]

VOICEOVER: In the time that they were in the corridors of Futian Market, Mount Everest grew by 2 centimetres, and Jakarta city sank by 10 centimetres... while the Catarina Pupfish became extinct.

Lucy and Blue are enthralled by the sights and sounds of the city.

Is this where all journeys end?

They wonder.

Once upon a time, things were very different.

Miracle City, then known by another name, was surrounded by large orchards of Peach trees. People say that an old woman from the north had come and planted the first tree. This was her gift to the wandering traders of Miracle City.

This peach tree blossomed like none had ever before.

Over time, orchards grew around the city, attracting visitors from near and afar.

But One spring, there were no flowers.

By summer the leaves began to fall. By autumn the branches were bare... as if they had never seen a spring.

The peach trees stood their ground for many years.

Eventually they were chopped and the wood was used to make the first factory of Miracle City.

Of course no one remembers this past.

Now, everything in Miracle City is new and fresh.

There is no place for scars and blemishes and wrinkles.

Or for stories of mysterious strangers bearing gifts of seeds and saplings.

[VISUAL: Flower street in Futian Market; flower factory]

VOICEOVER: Lucy and Blue overhear traders speak of the Garden of Eternal Bloom.

Still under construction, this Garden will be unlike any the world has ever seen.

The plants and trees in this garden will remain Forever fresh and fragrant.

Autumn leaves will never fall and flowers will never fade.

There is no decay, no death here. Only Eternal Bloom.

Lucy and Blue wonder if this is the Forever that other time travellers had been speaking of?

Is this the Forever that exists in poems and songs all over the world?

Is this Forever a Paradise of lasting perfection?

And what stories will the debris of Forever tell future time travellers?

Shh.. just listen to them.

The flowers speak of petrol... they recall the heat of the earth... the liquid rock, the slow becoming of oil. Bodies of dead ancestors transformed over millions of years into a sweet and sour liquid that runs through the very fibre of their being.

Lucy and Blue realise that the fragrance of immortality clings to each object in Miracle City and no perfumes from Paris or *ittars* from Kannauj can take that smell away.

[VISUAL: Pink Room in Chang Chun]

DIALOGUE (1)

Blue: How long will we stay here?

Lucy: I don't know...Perhaps we could just stay here... Forever.

Blue: Tell me then – how long is forever?

Lucy: I am not sure... Some people say that forever is as long as you can feel the Sun on your skin... others say that it is longer... maybe as long as the planet revolves around the sun... and there are others who say that forever is a fathomless eternity... it will last longer than anything else.

Blue: Do things in Forever change ?

Lucy: (Silent)

Blue: What if we stay here forever, grow old, very old and very broken? Will there still be joy in being here?

Lucy: (Silent)

[VISUAL: Doll factory]

VOICEOVER: Lucy and Blue discover that everything in Miracle City speaks.

They wonder if the objects learnt language from the hands and machines that made them.

Just like Living People - who learnt from other natural beings – from the wind and the storm, the river and the sea, from the crickets at night and birds at dawn.

The gasp of a worker's breath... his tired sigh... the creaking of weary knuckles at the end of the day.

Has all this entered the vernacular of Miracle City?

Today, Lucy and Blue are visiting a factory that manufactures Forever Child.

These are perfect children made to last forever.

Exported globally, they promise an eternity of a child's love and devotion.

These little beings, fixed in childhood, remain young in body but grow wiser in years.

They see and hear much but the only sound they can make is the anguished cry of a hungry baby.

This room in a Forever Child factory is a graveyard of moulds and possibilities.

It is a stock room, like a thousand others in the city – where older models wait to be disposed.

Lucy and Blue wonder if the city discards more than it creates.

How high is the mountain of rejects of Miracle City?

Lucy and Blue are tired.

They are anxious to move to a comfortable time... afraid that they may be stuck here Forever.

[VISUAL: Fotang Old Town]

VOICEOVER: They talk, and argue, and drift apart.

While one tries to make sense of the time she has found herself in....

The other spends her days planning a departure.

[VISUAL: Mannequin Factory, Yiwu]

VOICEOVER: Lucy and Blue visit a Forever Companion factory on the outskirts of Miracle City.

Having a factory produced companion is absolutely essential in this time.

The trend began in Miracle City when a rich factory boss took a companion home as a gift for his mother. It is said that the old lady was so charmed by the present that she immediately dressed it up in her own clothes, added some hair and makeup and took the companion out for a walk.

[VISUAL: Hengdian World Studios]

VOICEOVER: Today Forever Companions are the highest selling product in the market.

Consumers from all over the world marvel at the skill and craft with which these Forever goods are produced.

Most people own at least half a dozen Forever Companions.

The affluent have larger collections and twinning with one's Companion has become quite a fad.

Companions are also considered good luck charms for travellers.

[VISUAL: Mannequin storage facility; Yiwu Port]

VOICEOVER: Unlike the talkative Forever Flowers or the crying Forever Child... the Companions are silent creatures.

Their lips don't move, and their eyes never close.

Forever watchful, they look at the world in a state of petrified insomnia.

Every year hundreds of suicides are reported. It seems that there is something in the Companion's eyes that affects Living People deeply, making them take such a drastic step.

There is a nascent movement to ban Forever Companions or at least restrict their presence in public places.

But the popularity of the object outweighs the risk involved, and City Council is happy with the status quo.

Companions continue to be desired and longed for. Each season, there are newer models to choose from... While the mound of rejects keeps rising.

Lucy and Blue leave the Forever Companion factory – confused and uneasy.

[VISUAL: Pink Room in Chang Chun]

DIALOGUE (2)

Blue: May I ask you something?

Lucy: Yes of course..... though I may not have an answer for you.

Blue: If something can be made, then can it be unmade as well?

Lucy: Are you afraid that we will be unmade?

Blue: Maybe I am. What will be left of us after our unmaking?

Lucy: I don't know...Perhaps it will be some Carbon.

Blue: Is there unmaking in Forever?

Lucy: (Silent)

Blue: Will we be immortal in Forever?

Lucy: Silent

Blue: Will immortality make us Divine?

Lucy: Silent

[VISUAL: Yiwu city]

VOICEOVER: When I left Lucy and Blue that evening, little did I realise that it would be the last I see of them.

They vanished.... Without a word, without a trace.

I looked for them all over the city....

My search finally took me to the Forever Persons Research Lab. This facility is spread across several acres under the city. It is supposed to be a restricted zone and it is not open to public yet.

Did Lucy and Blue come here?

[VISUAL: Ex Robots Lab, Panjin]

VOICEOVER: it was difficult to access the lab but, I managed to find a way in.

I have never seen anything like the Forever Persons Research lab before.

I move from room to room... looking for them... but there is no sign of Lucy and Blue anywhere.

Instead I witness the creation of Forever Persons.

Apart from the lead scientists, no one in Miracle City knows exactly how these entities are made.

The Forever Persons walk and talk like the living.

They never sleep but they dream.

They have no soul but they have tremendous will.

I have heard that the Forever Persons will be indestructible. They are fire proof and water resistant. They can even survive a nuclear winter.

The Forever Persons have beautiful names like Samantha, Sophia and Jiang Lailai.

The new beings will work in factories, shops, offices, schools and private homes. They will be lovers, carers, accomplices.... caretakers of the Forever paradise of Miracle City...tending to its Garden of Eternal Bloom.

Were Lucy and Blue as fascinated by the Forever Persons as I am?

[VISUAL: Scientist – Android conversation, Ex Robots Lab, Panjin]

[AUDIO: Dialogue between a scientist and an android]

Scientist (S): Comrade Dan

Android (A): Hello

S: What do you like to eat?

A: Cheese, Toast, Tiramisu... all sweets are my favourite

S: Do you have a boyfriend?

A: What is a boyfriend? I just have one friend and that is you.

S: What is the weather like today?

A: Open the window and see for yourself.

S: What do you think about human beings?

A: The number of requests for today have been used up.

S: She is offline.

[VISUAL: Ex Robots Lab, Panjin]

VOICEOVER:

I wonder what Living People in the future will think of Forever Persons.

Will they be remembered as the custodians of the memory of the city? Or as the architects of its future?

Time moves slowly here, just as a grain of sand on a calm desert night. Forever Persons wait. Sometimes in excitement, sometimes in dread.

I realise I have been here for a long time – so long that I have forgotten the beginning of my journey. Perhaps it is time for me to leave.

[VISUAL: Old Woman in a room]

VOICEOVER:

For many years I continued to hear of the wonders of Miracle City, and then news came – of its tragic end.

Miracle City was infected by an unknown strain of plastic eating bacteria. The tiny organism gnawed away on the very material of Miracle City and in less than one year, destroyed the entire stock of Forever goods.

Living People moved on to other places, and Miracle City was slowly forgotten. Empty shells of buildings, gardens and all manner of creatures stand testimony to this once thriving metropolis.

Now, an occasional traveller stops by in search of memorabilia.

[VISUAL: Farm in Fotang]

VOICEOVER: Sigh... These days I get tired easily...so I work less and think more... I remember more... even as I feel the sun on my skin...

I think of all my travels... of Lucy and Blue... all those fascinating times and places... it was difficult to give it all up.

At times, I think that even if we leave a place, the place never leaves us.

Perhaps I will carry a little bit of Miracle City with me Forever.

Lucy: Silent

[VISUAL: End Credits]

[End]

Bibliography

Abrams, J. J. (Ed.). (2009). *The Philosophy of Stanley Kubrick*. Lexington: University Press of Kentucky.

Academic Dictionaries and Encyclopedias. (2018). *The Encyclopedia of Stanley Kubrick: From Day of the Fight to Eyes Wide Shut*. Retrieved from <http://archive.is/MayR0>

Agamben, G. (1993). *Coming Community*. Minneapolis. University of Minnesota Press.

Agnew, V., Lamb, J., & Tomann, J. (Eds.). (2019). *The Routledge Handbook of Reenactment Studies: Key Terms in the Field* (1st edition). Routledge.

Albright, M. (2011). The Visible Camera: Hand-Held Camera Movement and Cinematographic Embodiment in Autobiographical Documentary. *Spectator*. Issue: Spring 2011 (Vol.31.1) Accessed from https://cinema.usc.edu/archivedassets/31_1/6_AlbrightSpread.pdf

Alburger, J. (2019). *The Art of Voice Acting: The Craft and Business of Performing for Voiceover* (6th edition). Focal Press.

Amanda Intl Goup. (2018). Yiwu Markets. Retrieved from <http://archive.fo/kK4T4>

Andersson, J. (2018). *The Future of the World: Futurology, Futurists, and the Struggle for the Post Cold War Imagination*. New York, NY: Oxford University Press.

Appadurai, A. (Ed). (1988). *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge: Cambridge University Press.

Aqua (1997). Barbie Girl. In *Aquarium*. Warner Chappell Music, Inc, Universal Music Publishing Group.

Arendt, H. (2006). *Between Past and Future: Eight Exercises in Political Thought*. Penguin Classics. Originally published in 1961.

Atwood, M. (2011). *In Other Worlds*. New York: Random House, Inc.

Aufderheide, P. (2007). *Documentary Film: A Very Short Introduction*. Oxford; New York: Oxford University Press, Inc.

Augé, M. (2014). Howe, J. (Trans). *The Future*. London; New York: Verso.

Aydin, C. (2019). *The Politics of Anti-Westernism in Asia: Visions of World Order in Pan-Islamic and Pan-Asian Thought*. New York: Columbia University Press.

Baecque, A. D., Magidoff, J., & Vinsonneau, N. (2012). *Camera Historica: The Century in Cinema*. New York: Columbia University Press.

Bahng, A. (2018). *Migrant Futures: Decolonizing Speculation in Financial Times*. Durham; London: Duke University Press Books.

Balkema, A., & Slager, H. (Eds.). (2011). *Artistic Research*. Amsterdam: Rodopi.

Barthes, R. (2009). Lavers, D.A. (Trans). *Mythologies*. London: Vintage Classics.

Bharucha, R. (2009). *Another Asia: Rabindranath Tagore and Okakura Tenshin*. New Delhi: Oxford University Press.

Baudrillard, J. (1994). S. Glaser (Trans). *Simulacra and Simulation*. Ann Arbor: University of Michigan Press.

Baudrillard, J. (2005). *The System of Objects*. London; New York: Verso Books.

Bauman, Z. (2000). *Liquid Modernity*. Cambridge: Polity Books.

Beck, U. (1992). *Risk Society: Towards a New Modernity* (First edition). London: SAGE Publications Ltd.

Becker, P., Stein, A. J., & Link, H. (2011). *The Future Remembered: The 1962 Seattle World's Fair and Its Legacy*. Seattle, Wash.: Seattle Center Foundation.

Bekoff, M. & Pierce, J. (2018). *The Animals' Agenda: Freedom, Compassion, and Coexistence in the Human Age*. Beacon Press

Belguidoum, S. & Pliez, O. (2015). Yiwu: The Creation of a Global Market Town in China. *Articulo: Journal of Urban Research* [Online], 12 | 2015, Accessed from <http://articulo.revues.org/2863> ; doi: 10.4000/articulo.2863

Bellamy, E. (1982). *Looking Backward: 2000-1887*. New York: Penguin Classics. First published in 1888.

Bellinck, T. & Dienderen, A. (2019). “That’s My Life Jacket!” Speculative Documentary as a Counter Strategy to Documentary Taxidermy. *Critical Arts*, DOI: 10.1080/02560046.2019.1627474

Benjamin, W. (2008). Underwood, J.A. (Trans). *The Work of Art in the Age of Mechanical Reproduction*. London: Penguin. First published in 1936.

Bennett, J. (2010). *Vibrant Matter: A Political Ecology of Things*. Durham: Duke University Press Books.

Biggs, M. (Ed.). (2012). *The Routledge Companion to Research in the Arts* (1st Edition). London: Routledge.

Blassnig, M. (2010). Mechanical Love (Review). *Leonardo*, The MIT Press, Volume 43, Number 1, pp. 73-74. Retrieved from <http://archive.fo/84qiT>

Bhasker, R. (1991). *Philosophy and the Idea of Freedom*. London. Blackwell.

- Blümlinger, C. (2010). The Imaginary in the Documentary Image: Chris Marker's Level Five. *Image and Narrative*. Vol 11, No 1 (2010). Retrieved from <http://ojs.arts.kuleuven.be/index.php/imagenarrative/article/view/51>
- Bourke, J. (2013). *What It Means To Be Human: Reflections from 1791 to the Present*. London: Virago.
- Bradley, M.E. (2020). *Mizora: A Prophecy*. Amazon Digital Services LLC - KDP Print US. First published in 1880-81
- Braidotti, R. (2013). Posthuman Humanities. (Vol. 12, Issue 1). *European Educational Research Journal*. Accessed on 25 December 2020 from <https://doi.org/10.2304/eeerj.2013.12.1.1>
- Braithwaite, S. R. (2019). *Armageddon and Paranoia: The Nuclear Confrontation (Main edition)*. London: Profile Books.
- Brink, J. T. (Ed.). (2008). *Building Bridges: The Cinema of Jean Rouch*. London: Wallflower Press.
- Brown, B. (2001). Thing Theory. *Critical Inquiry*, Vol. 28, No. 1, pp. 1-22. The University of Chicago.
- Brown, B. (2006). Reification, Reanimation, and the American Uncanny. *Critical Inquiry*, Vol. 32, No. 2, pp.175-207. The University of Chicago. Accessed from <https://doi.org/10.1086/500700> in December 2019.
- Brown, B. (2019). *Other Things*. University of Chicago Press.
- Bruzzi, S. (2000). *New Documentary: A Critical Introduction*. London. Routledge.
- Bryant, L. R. (2011). *The Democracy of Objects*. Ann Arbor, Michigan Publishing, University of Michigan Library.

Bryant, R. & Knight, D.M. (2019). *The Anthropology of the Future*. Cambridge; New York: Cambridge University Press.

Bryant, L., Srnicek, N., & Harman, G. (Eds.). (2011). *The Speculative Turn: Continental Materialism and Realism* (First Edition edition). re.press.

Bunt, B. (2012). Speculative Documentary. *Expanded Documentary*. Retrieved from <http://archive.fo/RBrAJ>

Burrows, D., & O'Sullivan, S. (2019). *Fictioning: The Myth-Functions of Contemporary Art and Philosophy* (1st Edition). Edinburgh University Press.

Burton, R. (Trans). (2004). *The Arabian Nights: Tales from a Thousand and One Nights*. New York: Modern Library

Calvino, I. (1997). Weaver, W. (Trans). *Invisible Cities*. London: RHUK.
Original work published in 1972.

Campbell, C. (2018). *Nonfics*. How to Set a Documentary in the Future. Archived on 22 September 2018 at <https://archive.is/XNAyL>

Candy, S. (2018). Contemporary Issues in Design: Future Documentary. *School of the Art Institute of Chicago*. Retrieved from <http://archive.fo/fvZHW>

Casares, A.B. (2003). Simms, R.L (Trans). *The Invention of Morel*. New York: NYRB Classics.

Chang, L.T. (2009). *Factory Girls: From Village to City in a Changing China*. New York: Random House.

Chaudhary, Z. R. (2012). *Afterimage of Empire: Photography in Nineteenth-Century India*. Minneapolis; London: University of Minnesota Press.

Cherrell, K. (2011). A Very 90s Death: The Tamagotchi Cemetery. *burielsandbeyond.com*. Retrieved from <https://archive.is/0Tmu3>

Cinema Politica. (2017). The Next 150: Documentary Futurisms. Retrieved from <http://archive.fo/MaCGE>

Cirincione, J. (2008). *Bomb Scare: The History and Future of Nuclear Weapons (1 Edition)*. New York: Columbia University Press.

Cole, J., & Various. (2003). *Plastic Man Archives HC Vol 05 (01 Edition)*. DC Comics.

Collodi, C. (2021). *The Adventures of Pinocchio*. First published in 1883.

Colman, F. (2011). *Deleuze and Cinema: The Film Concepts*. Berg.

Corner, J. (2002). Performing the Real: Documentary Diversions. *Television & New Media*. Vol. 3 No. 3, 08/2002. Sage Publications.

Corbett, E.B. (2014). *New Amazonia: A Foretaste of the Future*. Seattle: Aqueduct Press. First published in 1889.

Cubitt, S. (2005). *The Cinema Effect*. Cambridge, Mass: MIT Press.

Cuboniks, L. (2018). *The Xenofeminist Manifesto: A Politics for Alienation*. Brooklyn: Verso.

Damluji, M. (2013). *Petroleum's Promise: The Neo-colonial Imaginary of Oil Cities in the Modern Arabian Gulf*. (Doctoral thesis). University of California, Berkeley.

Davis, G. (2009). *Superstar: The Karen Carpenter Story*. London: Wallflower Press.

Davis, H., & Turpin, E. (2015). *Art in the Anthropocene: Encounters Among Aesthetics, Politics, Environments and Epistemologies*. London: anexact.

Davis, H., & Todd, Z. (2017). On the Importance of a Date, or Decolonizing the Anthropocene. *ACME: An International Journal for Critical Geographies*, Vol 16 (4). pp. 761-780. Retrieved from <https://www.acmejournal.org/index.php/acme/article/view/1539>

Debord, G. (1995). (D. Nicholson-Smith, Trans). *The Society of the Spectacle*. New York: Zone Books MIT. First published in 1967.

Debroy, B. (2015). *Mahabharata: Volume 2*. India: Penguin Books India PVT, Limited.

Deleuze, G., Guattari, F., & Maclean, M. (1985). *Kafka: Toward a Minor Literature: The Components of Expression*. *New Literary History* (Vol. 16, No. 3. Pp. 591–608). Baltimore: The Johns Hopkins University Press. <https://doi.org/10.2307/468842>

Deleuze, G. & Guttari, F. *What is Philosophy?* (1994). Burchill, G. & Tomlinson, H. (Trans). London; New York: Verso.

Derrida, J. (2005). *The Politics of Friendship*. London: Verso.

Descola, P. (2013). *Beyond Nature and Culture*. Chicago: University of Chicago Press.

Dhareshwar, V., Niranjana, T., & Sudhir, P. (Eds.). (1993). *Interrogating Modernity: Culture and Colonialism in India*. South Asia Books.

Dickinson, E. (1976). *The Complete Poems of Emily Dickinson* (T. H. Johnson, Ed.; Later Printing edition). Back Bay Books.

Dowmunt, T. (2009). *A Whited Sepulchre*. (Doctoral thesis). Goldsmiths, University of London. Available on British Library's EthOS.

Duara, P. (1997). *Rescuing History from the Nation: Questioning Narratives of Modern China*. Chicago: University of Chicago Press.

Duncan, P. (1999). *Stanley Kubrick* (1st Edition). Harpenden: Pocket Essentials.

- Dunne, A., & Raby, F. (2013). *Speculative Everything: Design, Fiction, and Social Dreaming* (1st edition). The MIT Press.
- Dym, J.A. (2000). Benshi and the Introduction of Motion Pictures to Japan. *Monumenta Nipponica*. Vol. 55, No. 4 (Winter, 2000), pp. 509-536.
doi: 10.2307/2668250
- Eco, U., Farina, C. M., Farina, G., & Erspamer, F. (2015). *How to Write a Thesis* (Translation edition). Cambridge, Massachusetts: The MIT Press.
- Ellis, J. (2011). *Documentary: Witness and Self-Revelation* (1 Edition). London; New York, NY: Routledge.
- Ellis, E.C. (2018). *Anthropocene: A Very Short Introduction*. Oxford; New York: OUP Oxford.
- Erjavec, A. (Ed.). (2015). *Aesthetic Revolutions and Twentieth-Century Avant-Garde Movements*. Durham; London: Duke University Press Books.
- Fisher, M. (2017). *The Weird and the Eerie*. London: Repeater Books.
- Franke, A. (Ed.) (2010). *Animism*. Antwerp: Sternberg Press/ Extra City - Kunsthall Antwerp
- Ferguson, A. (2010). *The Sex Doll: A History*. Jefferson, North Carolina: McFarland & Co.
- Fernando, G. (2018) How AI sex robots could ‘change humanity completely’. *News.com.au*. Retrieved from <http://archive.fo/RrxvV>
- Franklin, S. (2016). *The Documentary Impulse* (First Edition). New York: Phaidon Press.
- Frankopan, P. (2016). *The Silk Roads: A New History of the World*. Bloomsbury Paperbacks.
- Freinkel, S. (2011). *Plastic: A Toxic Love Story*. Boston: Houghton Mifflin Harcourt.

Freud, S. & Haughton, H. (2003). McLintock, D. (Trans). *The Uncanny*. London: Penguin Classics.

Frise Kunstlerhaus. (2015). India Week. Retrieved from <http://archive.ph/OhZoR>

Fukuyama, F. (2012). *The End of History and the Last Man*. London: Penguin.

Gandhi, L. (2006). *Affective Communities: Anticolonial Thought, Fin-de-Siècle Radicalism, and the Politics of Friendship*. London; Durham: Duke University Press Books.

Gaudreault, A., & Altman, R. (2011). Barnard, T. (Trans). *Film and Attraction: From Kinematography to Cinema*. Urbana: University of Illinois Press.

Geczy, A. (2017). *The Artificial Body in Fashion and Art: Marionettes, Models and Mannequins*. London; New York: Bloomsbury Academic.

Ghosh, A. (2012). *River of Smoke*. New York: Picador.

Goldsmith, L. (2006). The War Game. *NotComing.com*. Retrieved from <http://archive.is/Czu1p>

Govindrajan, R. (2018). *Animal Intimacies: Interspecies Relatedness in India's Central Himalayas* (1 edition). Chicago: University of Chicago Press.

Graninge, P., Jancovich, M. & Montieth, S. (Eds). (2007). *Film Histories: An Introduction and Reader*. Toronto: University of Toronto.

Gray, C., & Malins, J. (2016). *Visualizing Research: A Guide to the Research Process in Art and Design*. Abingdon; New York: Routledge

Gray, C. (2006). From the ground up: encountering theory in the process of practice-led doctoral research. *INTHEORY from the ground up*. Retrieved from https://www.academia.edu/9689857/From_the_ground_up_encountering_theory_in_the_process_of_practice-led_doctoral_research on 20 December 2021

Grierson, J. (1979). First Principles of Documentary. In Forsyth Hardy et al (Eds.), *Grierson on Documentary* (pp. 35-46). London: Faber.

Groom, A. (Ed). (2013). *Documents of Contemporary Art: Time*. London: Whitechapel Gallery.

Gross, K. (1992). *The Dream of the Moving Statue*. Ithaca; London: Cornell University Press.

Gross, K. (2011). *Puppet: An Essay on Uncanny Life*. Chicago; London: The University of Chicago Press. Retrieved from <https://1lib.in/book/2639250/58a549?dsouce=recommend>

Grusin, R. (Ed). (2015). *The Nonhuman Turn*. (First Edition). Minneapolis: University of Minnesota Press.

Godar, B. (2018). Time Was the Essence of This Year's True/False Film Festival. *Nonfics: real stories, real insights*. Retrieved from <https://archive.is/b6h48>

Gunning, T. (2006). The Cinema of Attraction[s]: Early Film. Its Spectator and the Avant-Garde. In Strauven, W. (Ed.), *The Cinema of Attractions Reloaded* (pp. 381-388). Amsterdam University Press. Accessed from <https://www.jstor.org/stable/j.ctt46n09s.27>

Hameed, A. (2017). A Conversation between Henriette Gunkel, Ayesha Hameed and Simon O'Sullivan. In Gunkel, H., O'Sullivan, S. & Hameed, A. (Eds.) *Futures and Fictions*. London: Repeater

Hameed, A. & Gunkel, H. (2021). *Visual Cultures as Time Travel*. Berlin: Sternberg Press.

Hacking, I. (1990). *The Taming of Chance* (First Edition edition). Cambridge England; New York: Cambridge University Press.

Haraway, D. J. (1996). *Simians, Cyborgs and Women: The Reinvention of Nature*. Free Assn Books

Haraway, D. J. (2003). *The companion species manifesto: Dogs, people, and significant otherness* (Vol. 1, pp. 3-17). Chicago: Prickly Paradigm Press.

Haraway, D. J. (2007). *When Species Meet*. Minneapolis: University of Minnesota Press.

Haraway, D. J. (2011). *SF: Science Fiction, Speculative Fabulation, String Figures, So Far*. Pilgrim Award acceptance talk. Archived on 2 January 2022 at <https://archive.is/5Ni3z>

Haraway, D. J. (2012). *100 Notes – 100 Thoughts*. Documenta 13

Haraway, D. J. (2016). *Staying with the Trouble: Making Kin in the Chthulucene*. Durham: Duke University Press Books.

Harman, G. (2018). *Object-Oriented Ontology: A New Theory of Everything* (01 edition). London: Pelican.

Hartman, S. (2006). *Lose Your Mother: A Journey Along the Atlantic Slave Route*. Farrar, Straus and Giroux.

Hartman, S. (2008). Venus in Two Acts. *Small Axe*. (Vol.12, issue 2, p.1-14). Duke University Press. <https://doi.org/10.1215/-12-2-1>

Hawkins, G., Gabrys, J. & Michael, M. (Ed.) (2017). *Accumulation*. (1st Edition). London New York: Routledge.

Heidegger, M. (1971). Hofstadter, A. (Trans). The Thing. *Poetry, Language, Thought*. New York: Harper & Row

Henley, P. (2010). *The Adventure of the Real: Jean Rouch and the Craft of Ethnographic Cinema*. Chicago; London: University of Chicago Press.

Hetherington, K. (2007). *Capitalism's Eye Cultural Spaces of the Commodity*. (1st Edition). New York: Routledge.

Hinton, D. (2012). *Hunger Mountain: A Field Guide to Mind and Landscape*. Boston: Shambhala Publications.

Hoberman, J. (2004). Nuclear reaction. *The Guardian*. Retrieved from <https://www.theguardian.com/film/2004/jan/09/3>

Hoffmann, E. T. A., (1982). Hollingdale, J.R. (Trans). *Tales of Hoffmann*. Middlesex; New York: Penguin Classics.

Hoffman, E.T.A. (2011). *The Sandman*. United Kingdom: Read Books. First published in 1816.

Hon, A. (2013). *A History of the Future in 100 Objects*. Skyscraper Publications.

Hongisto, I. (2015). *Soul of the Documentary: Framing, Expression and Ethics*. Amsterdam. Amsterdam University Press.

Hossain, R.S. (1988). Jahan, R. (Trans). *Sultana's Dream*. New York: The Feminist Press at CUNY. First published in 1905.

Hurbis-Cherrier, M. (2018). *Voice & Vision: A Creative Approach to Narrative Filmmaking* (3 edition). New York: Routledge.

Hume, C. (2014). Parachute. In Zurkow, M. & Vogrin, V. (Eds.), *The Petroleum Manga* (p. 78). New York: Peanut Books.

IFL Science. (2017). *Sex Robot Has Traumatic Experience At Technology Festival And Is Forced To Retire Many Body Parts*. Archived on 29 September 2017 at <http://archive.is/zxGIX>.

Ingawanij, M.A., (2013). Animism and the Performative Realist Cinema of Apichatpong Weerasethakul. In Pick, A. & Narraway, G. (Eds.), *Screening Nature: Cinema beyond the Human* (p.91). New York: Berghahn Books.

Iser, W. (1993). *The Fictive and the Imaginary: Charting Literary Anthropology*. Baltimore: The Johns Hopkins University Press.

Jacobs, M. (2016). *Yiwu, China: A Study of the World's Largest Small Commodities Market*. Paramus, New Jersey: Homa & Sekey Books.

Jacobs, S. (2011). *Framing Pictures: Film and the Visual Arts*. United Kingdom. Edinburgh University Press Ltd.

Jain, K. (2002). More than Meets the Eye: The Circulation of Images and the Embodiment of Value. *Contributions to Indian Sociology*. 36: 33-70. Accessed from <https://doi.org/10.1177/006996670203600103>

Jain, K. (2007). *Gods in the Bazaar: The Economies of Indian Calendar Art*. Durham: Duke University Press Books.

Jameson, F. (2005). *Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions*. London: Verso.

Jasanoff, S. (2007). *Designs on Nature: Science and Democracy in Europe and the United States*. Princeton NJ: Princeton University Press.

Jayasankar, K. P., & Monteiro, A. (2015). *A Fly in the Curry: Independent Documentary Film in India* (1st Edition). Los Angeles: SAGE Publications Pvt. Ltd.

Johnson, B. E. (2010). *Persons and Things*. United States of America: Harvard University Press.

Johnston, K. M. (2011). *Science Fiction Film: A Critical Introduction*. Oxford; New York: Berg Publishers.

Jones, C.A. (2017). *Global Work of Art: World's Fairs, Biennials, and the Aesthetics of Experience*. Chicago; London: University of Chicago Press.

Josephs, J. (2017) All aboard the China-to-London freight train. *BBC News*. Retrieved 20 January 2017, from <https://www.bbc.com/news/business-38654176>.

Juhasz, A. J., & Lerner, J. (2006). *F Is For Phony: Fake Documentary And Truth's Undoing* (First edition edition). Minneapolis: University of Minnesota Press.

Juhasz, A., & Lebow, A. (Eds.). (2015). *A Companion to Contemporary Documentary Film*. Malden, MA: John Wiley & Sons.

Kafka, F. (2017). *Metamorphosis*. Fingerprint! Publishing. First published in 1915.

Kaul, S. (Ed). (2021). *Retelling Time: Alternative Temporalities from Premodern South Asia*. Routledge India.

Kaviraj, S. (2010). *The Imaginary Institution of India*. New York. Columbia University Press.

King, B.J. (2014). *How Animals Grieve*. Chicago. University of Chicago Press.

Kleeck, M.V. (1913). *Artificial Flower Makers*. New York: Russell Sage Foundation.
Accessed from: <https://www.russellsage.org/artificial-flower-makers> on 29 January 2020.

Kohn, E. (2013). *How Forests Think – Toward an Anthropology Beyond the Human*. (1st Edition). London: University of California Press, Ltd.

Kovalchuk, L. (2019). Rubber Wife: Living with a Sex Doll. *Bird in Flight*. Retrieved from <https://archive.is/6X15F>

Kracauer, S. (1997). *Theory of Film: The Redemption of Physical Reality*. Princeton, NJ: Princeton University Press.

Kundu, N. D. (2016). *China's One Belt One Road: Initiative, Challenges and Prospects*. VII Books.

Lane, M.B. (1999). *Mizora: A World of Women*. Lincoln: Bison Books.
First published in 1880-81.

Larkin, B. (2008). *Signal and Noise: Media, Infrastructure, and Urban Culture in Nigeria*. Durham: Duke University Press Books.

Latour, B. (1993). Porter, C. (Trans). *We Have Never Been Modern*. United States of America: Harvard University Press.

Leavy, P. (2015). *Method Meets Art, Second Edition: Arts-Based Research Practice* (2 edition). New York; London: Guilford Press.

Le Guin, U. K. (1999). *The Dispossessed* (New Ed edition). London: Gateway.

Le Guin, U. K. (2002). *The Left Hand of Darkness*. New York: Ace Books.

Le Guin, U. K. (2012). *Earthsea: The First Four Books: A Wizard of Earthsea, The Tombs of Atuan, The Farthest Shore, Tehanu* (Re-issue edition). Penguin.

LeMenager, S. (2014). *Living Oil: Petroleum Culture in the American Century*. New York, NY: OUP USA.

Lemire, J. (2021). *Sweet Tooth Compendium*. Burbank CA: DC Comics.

Lévi-Strauss, C. (1996). Tihanyi, C. (Trans). *The Story of Lynx*. Chicago: University of Chicago Press.

Lévy, P. (1988). *Becoming Virtual: Reality in the Digital Age*. Michigan: Plenum Trade

Letterboxd. (2018). Speculative Documentaries. Retrieved from <https://letterboxd.com/windyblue/list/speculative-documentaries/>

Liu, K. (2016). *The Paper Menagerie and Other Stories*. New York: Saga Press.

Little, D. (2014). Understanding Society: Liquid Modernity? *Understanding Society*. Retrieved from <https://understandingsociety.blogspot.com/2014/05/liquid-modernity.html>

Linning, S. (2017). Barbie fanatic, 46, spends more than £20,000 on plastic surgery to make herself look more like the doll. *Mail Online*. Retrieved from <https://archive.is/IDbw0>

Loizos, P. (1993). *Innovation in Ethnographic Film: From Innocence to Self-Consciousness, 1955-1985* (1st Edition). Chicago: University of Chicago Press.

Lowe, L. (2006). The Intimacies of Four Continents. In Stoler, A.L.(Ed). *Haunted by Empire: Geographies of Intimacy in North American History* (p.208). Durham: Duke University Press.

Lupton, C. (2004). *Chris Marker: The Geography of Memory: Memories of the Future*. London: Reaktion Books.

Lutgendorf, P. (2021) The Mahābhārata as Dystopian Future. In Hawley, N.S. & Pillai, S.S. (Eds.), *Many Mahābhāratas* (pp. 361-384). New York: State University of New York Press.

MacDonald, K. & Cousins, M. (Eds.). (1996). *Imagining Reality*. London: Faber and Faber.

MacDougall, D. (1992-93). When Less Is Less: The Long Take in Documentary. *Film Quarterly*, Vol. 46, No. 2 (Winter, 1992-1993), pp. 36-46

Mackay, R., Avanesian, A., Marx, K., Butler, S., & Federov, N. (2018). *#Accelerate: The Accelerationist Reader*. Falmouth, UK: Urbanomic.

Mahadevan, S. (2016). *A Very Old Machine: The Many Origins of the Cinema in India*. State University of New York Press.

Malabou, C. (2012). Shread, C. (Trans). *The Ontology of the Accident: An Essay on Destructive Plasticity*. Cambridge: Polity Press.

Marinetti, F. T., (1909). *The Manifesto of Futurism*. Retrieved from https://www.societyforasianart.org/sites/default/files/manifesto_futurista.pdf

Mathews, G., Ribeiro, G.L., & Vega, C.A. (2012). (Eds). *Globalization from Below: The World's Other Economy*. London; New York: Routledge.

Mathews, G., Lin, L. D., & Yang, Y. (2018). *The World in Guangzhou: Africans and Other Foreigners in South China's Global Marketplace*. Chicago; London: University of Chicago Press.

Markham, A.N. (2014). *Producing Ethics (for the digital near-future)*, presented at EASA Media Anthropology Network's 49th e-Seminar, 9-23 December 2014. Retrieved from www.media-anthropology.net/file/markham_producing_ethics.pdf

Marsden, M. (2017). Actually existing silkroads. *Journal of Eurasian Studies*. 8 (2017) pp. 22-30. Accessed from <http://dx.doi.org/10.1016/j.euras.2016.11.006>

Maulk, B. (2019). Can China Turn the Middle of Nowhere into the Center of the World Economy? *The New York Times Magazine*. Archived as <http://archive.fo/vDVhg>

McDonald, K. (2016). *Film Theory: The Basics*. London; New York: Routledge.

McLean, S. (2011). *'I Flung Myself into Futurity': Wells Studies for the Twenty-First Century*. Retrieved from <https://doi.org/10.1111/j.1741-4113.2011.00818.x>

Meikle, J. L. (1995). *American Plastic: A Cultural History*. Rutgers University Press.

Mertes, C. (2007). Future Doc: The View from Sundance. *International Documentary Association*. Retrieved from <http://archive.fo/bQuuq>

Metz, W.C. (2016). Far from Toy Trains. *Film Criticism*. 40, No. 3 (Spring 2016): n.p. Accessed from <https://doi.org/10.3998/fc.13761232.0040.303>

Michaels, M. (2016). Speculative Design and Digital Materialities: Idiocy, Threat and Compromise?. In S. Pink, E. Ardèvol and D. Lanzeni (eds), *Digital Materialities: Anthropology and Design*, 99–113. London. Bloomsbury.

Michaels, M. (2016). Notes Toward a Speculative Methodology of Everyday Life. *Qualitative Research*. Retrieved from <https://doi.org/10.1177/1468794115626245>

- Miles, A. (2013). A Speculative Documentary. *Networked Media*. Retrieved from <http://archive.fo/gPCjt>
- Miller, W. I. (2007). *Eye for an Eye*. Cambridge: Cambridge University Press.
- Minh-ha, Trinh T. (1993) The Totalizing Quest of Meaning. In Renov, M., (Ed.). *Theorizing Documentary* (p. 90). London: Routledge.
- Mishra, P. (2012). *From the Ruins of Empire: The Intellectuals Who Remade Asia*. Doubleday Canada.
- Mitman, G., Wilder, K. (2016). Introduction. In Mitman, G., Wilder, K. *Documenting the World: Film, Photography, and the Scientific Record*. Retrieved from https://books.google.co.uk/books?id=9H4RDQAAQBAJ&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false
- Mitman, G., Armiero, M., & Emmett, R. (2018). *Future Remains: A Cabinet of Curiosities for the Anthropocene*. Chicago; London: University of Chicago Press.
- Montfort, N. (2017). *The Future*. Cambridge, USA: MIT Press.
- Morton, T. (2013). *Hyperobjects: Philosophy and Ecology after the End of the World*. Minneapolis: University of Minnesota Press.
- Morton, T. (2018). *Being Ecological*. United Kingdom: Pelican.
- Moria: Science Fiction, Horror and Fantasy Film Review*. (2015). Archived on 1 January 2022 at <https://archive.is/6AfXj>
- Munro, K., Bilbrough, P. (2018). An ecology of relationships: tensions and negotiations in documentary filmmaking practice as research. *Media Practice and Education*, 19:3, pp. 256-269, DOI: 10.1080/25741136.2018.1511361

Mulvey, L. (2009). *Visual and Other Pleasures*. United Kingdom. Palgrave Macmillan UK.

Nahin, P. J. (2001). *Time Machines: Time Travel in Physics, Metaphysics, and Science Fiction*. Woodbury; New York: Springer.

Naisbitt, J. (1984). *Megatrends: Ten New Directions Transforming Our Lives* (Reissue edition). New York: Grand Central Pub. First published in 1979.

Nash, K. (2014). Clicking on the World: Documentary Representation and Interactivity. In C. Hight, C. Summerhayes, & K. Nash (Eds.), *New documentary Ecologies: Emerging Platforms, Practices and Discourses* (pp. 50–66). New York: Palgrave Macmillan.

Nelson, V. (2003). *The Secret Life of Puppets*. United States of America: Harvard University Press

Nichols, B. (1983). Voice of documentary, *Film Quarterly*. Vol. 36, No. 3 (Spring, 1983), pp. 17-30 (14 pages). University of California Press.

Nichols, B. (1992). *Representing Reality: Issues and Concepts in Documentary*. Bloomington: Indiana University Press.

Nichols, B. (1995). *Blurred Boundaries: Questions of Meaning in Contemporary Culture*. Bloomington: Indiana University Press.

Nichols, B. (2016). *Speaking Truths with Film: Evidence, Ethics, Politics in Documentary*. Oakland: University of California Press.

Nichols, B. (2017). *Introduction to Documentary* (Third edition). Bloomington: Indiana University Press.

Niechajev, I. & Haraldsson, P.O. (1997). Ethnic Profile of Patients Undergoing Aesthetic Rhinoplasty in Stockholm, *Aesthetic Plastic Surgery*. Cited in Bourke, J. (2013). *What it Means to be Human: Reflections from 1791 to the Present*. London: Virago.

Nietzsche, F.W. (1998). Clark, M & Swenson, A.J. (Trans). *On the Genealogy of Morality*. Indianapolis: Hackett Publishing

Nuwer, R. (2014). Future Fossils, Plastic Stone. *New York Times*. Archived at <https://archive.md/pxIjv> on 19 January 2015.

Ovid. (2004). *Metamorphoses*. Raeburn, D. (Trans). London: Penguin Classics. (Original work published in 8 AD)

Parks, C. (2014). Plastic Flower. In Zurkow, M. & Vogrin, V. (Eds.), *The Petroleum Manga* (p. 78). New York: Peanut Books.

Pearce, C., Schweizer, B., Hollengreen, L., & Rouse, R. (2014). *Meet Me at the Fair: A World's Fair Reader*. Retrieved from https://www.researchgate.net/publication/289540179_Meet_Me_at_the_Fair_A_World's_Fair_Reader

Pearce, G., & McLaughlin, C. (Eds.). (2007). *Truth or Dare: Art and Documentary*. Bristol: Intellect Books.

Pettman, D. (2006). *Love and other Technologies*. New York: Fordham University Press.

Pettman, D. (2011). *Human Error: Species-Being and Media Machines*. Minneapolis: University of Minnesota Press.

Pettman, D. (2016). Libidinal Ecology: Sex and the Anthropocene. In *Public Seminar, The New School Publishing Initiative*. Archived at <https://archive.is/loJfm> on 4 January 2022.

Pettman, D. (2019). The Species Without Qualities: Critical Media Theory and The Posthumanities. *b2o: an online journal*. Archived at <https://archive.is/V0l0H> on 22 November 2021.

Phillips, G. D., & Hill, R. (2002). *The Encyclopedia of Stanley Kubrick*. New York, NY: Facts on File Inc. Retrieved from <http://archive.is/MayR0> on 20 November 2018.

Plantinga, C. (2005). What a Documentary Is, After All? *The Journal of Aesthetics and Art Criticism* (Vol. 63, No. 2, pp. 105- 117). Accessed from <https://www.jstor.org/stable/3700465> on 28 January 2020.

Pinkus, K. (2016). *Fuel: A Speculative Dictionary*. Minneapolis: University of Minnesota Press.

Praet, I. (2014). *Animism and the Question of Life*. Routledge.

Rainey, L., Poggi, C., & Wittman, L. (2009). *Futurism: An Anthology*. New Haven: Yale University Press.

Purdy, J. (2018). *After Nature: A Politics for the Anthropocene*. Cambridge; London: Harvard University Press.

Ramanujan, A.K. (1994). *Folktales from India: A Selection of Oral Tales from Twenty-two Languages*. New York: Pantheon

Rajadhyaksha, A. (2001). Viewership and democracy in the cinema. In R. Vasudevan (Ed.), *Making Meaning in Indian Cinema*. New Delhi: Oxford University Press

Reed, C. (2015). Plastic Age: How it's reshaping rocks, oceans and life. *New Scientist*. Retrieved from <http://archive.fo/jNI4P>

Renov, M. (Ed.). (1993). *Theorizing Documentary*. New York: Routledge.

Renov, M. (2004). *Subject of Documentary*. Minneapolis: University of Minnesota Press.

Rhodes, G. D., Springer, J.P. (2006). *Docufictions: Essays on the intersection of Documentary and Fictional Filmmaking*. United States of America: McFarland & Company, Inc., Publishers

Roberts, B. (2007). *Introduction to Bernard Stiegler*. *Parallax*, vol. 13, no. 4, pp. 26–28. <https://doi.org/10.1080/13534640701682776>. Routledge.

Robertson, M. (2018). *The Last Utopians: Four Late Nineteenth-Century Visionaries and Their Legacy*. Princeton: Princeton University Press.

Robinson, A. (2004). *Satyajit Ray: The Inner Eye: The Biography of a Master Film-Maker*. London; New York: I.B.Tauris.

Rockhill, G. (2004). The Silent Revolution. *Contemporary Thinker Jacques Rancière*. *SubStance* 33, no. 1, issue 103 (2004): 54-76. <https://doi.org/10.2307/3685462>

Rosenberg, D. & Harding, S. (Eds.). (2005). *Histories of the Future*. Durham: Duke University Press Books.

Rosengarten, M., Savransky, M. & Wilkie, A. (Eds.). (2017). *Speculative Research: The Lure of Possible Futures* (1 edition). London; New York: Routledge.

Rosenthal, A., & Corner, J. (Eds.). (2005). *New Challenges for Documentary*, Second edition (2 edition). Manchester: Manchester University Press.

Rouch, J. (2003). *Cine-Ethnography*. Minneapolis: University of Minnesota Press.

Roxburgh, H. (2017). Welcome to Yiwu: China's testing ground for a multicultural city. *The Guardian*. Retrieved from <http://archive.fo/JPo3x>

Ruefle, M. (2017). *On Imagination*. Louisville, KY: Sarabande Books.

Rui, H. (2018). Yiwu: Historical transformation and contributing factors. *History and Anthropology*. (29:sup1, p. 14-30). Accessed from <https://doi.org/10.1080/02757206.2018.1516654>

Rust, S. (Ed.). (2012). *Ecocinema Theory and Practice*. New York: Routledge.

Salazar, J.F. (2006). In Conversation with Juan Francisco Salazar. (R. Morley). *Global Media Journal*. Vol 10 (Issue 1), p. 15. Retrieved from <http://archive.fo/pvsp7>

Salazar, J.F. (2015). Anticipatory Modes of Futuring Planetary Change in Documentary Film. In Juhasz, A., & Lebow, A. (Eds.). *A Companion to Contemporary Documentary Film*. Malden, MA: John Wiley & Sons.

Salazar, J. F., Pink, D. S., Irving, A., & Sjoberg, J. (Eds.). (2017). *Anthropologies and Futures: Researching Emerging and Uncertain Worlds*. London; New York: Bloomsbury Academic.

Saldanha, A. & Stark, H. (2016). A New Earth: Deleuze and Guattari in the Anthropocene. *Deleuze Studies*. 10. 427-439. 10.3366/dls.2016.0237.

Sandler, M. W. (2002). *Photography: An Illustrated History* (1st edition). Oxford ; New York: Oxford University Press, USA.

Sardar, Z. (2014). *Future: All That Matters* (1 edition). McGraw-Hill Education.

Sardar, Z. (2010). The Namesake: Futures; futures studies; futurology; futuristic; foresight—What's in a name? *Futures*. 42 (177–184). Retrieved from www.elsevier.com/locate/futures

Saukko, P. (2008). *The Anorexic Self: A Personal, Political Analysis of a Diagnostic Discourse*. Albany: State University of New York Press.

Schneider, S. (2009). *Science Fiction and Philosophy: From Time Travel to Superintelligence*. Chichester, U.K.; Malden, MA. Wiley-Blackwell.

Schulz, B. (1992). Wieniewska, C. (Trans). *The Street of Crocodiles*. Penguin Classics. Originally published in 1934.

Schwartz, H. (2013). *The Culture of the Copy: Striking Likenesses, Unreasonable Facsimiles*. New York: Zone Books.

Scovell, A. (Interviewer) (27 June 2017). Interview with Patrick Keiller. On British Film Institute website. Retrieved from <https://archive.md/YuzvX>

Shah, S. (2018). Max Pinckers Interview: On Speculative Documentary. *American Suburb X*. Retrieved from <http://archive.fo/HDqrt>

Shakespeare, W. (2015). *The Winter's Tale*. Penguin Classics. First published in 1623.

Silk, D. (2008). *The Marionette Theatre*. Vol.10, Part 1. pp 73-83. Retrieved from <https://doi.org/10.1080/10486809908568576>.

First published by The Sheep Meadow Press, New York, in *William The Wonder-Kid: Plays, Puppet-Plays and Theater-Writings* (1996).

Shaviro, S. (2014). *The Universe of Things: On Speculative Realism*. Minneapolis; London: University of Minnesota Press.

Shaviro, S. (2016). *Discognition*. London: Repeater Books.

Shaw, J.K. & Reeves-evison, T. (Eds). (2017). *Fiction as Method*. Sternberg Press

Shaw, T. (2006). The BBC, the State and Cold War Culture: The Case of Television's The War Game. *The English Historical Review*. Vol. CXXI, Issue 494, 1 December 2006, 1351–1384. <https://doi.org/10.1093/ehr/ce1282>

Shelly, M.W. (1982). *Frankenstein or The Modern Prometheus*. Chicago; London: University of Chicago Press. First published in 1818.

Shepert, E. (2020). A new 'sex doll' delivery service has started up in Vancouver during the COVID-19 pandemic. *Tricity News*. Retrieved from <https://archive.is/mSeRk>

Sherman, F. A. (2016). *Now and Then We Time Travel: Visiting Pasts and Futures in Film and Television*. Jefferson, North Carolina: McFarland.

Shulman, D. (2001). *The Wisdom of Poets: Studies in Tamil, Telugu, and Sanskrit*. India: OUP India.

Sjöberg, J. (2017). Ethno Science Fiction: Projective Improvisations of Future Scenarios and Environmental Threats in the Everyday Life of British Youth. In Salazar et al., *Anthropologies and Futures: Researching Emerging and Uncertain Worlds*. (pp. 168-186). London; New York: Bloomsbury Academic.

Smith, M. (2014). *The Erotic Doll: A Modern Fetish*. New Haven: Yale University Press.

Slaughter, R. A. (Ed.). (1996). *New Thinking for a New Millennium: The Knowledge Base of Futures Studies*. London; New York: Routledge.

Souza, E. (2021). A Museum About Plastic, Made of Plastic, That Will Be Completely Recycled. *Archdaily.com*. Archived at <https://archive.is/ZeU26> on 4 January 2022

Speculation and Speculative Research Workshop (2014). *Units of Play*. Goldsmiths. Retrieved from <http://archive.fo/0Xp1c>

Stallabrass, J. (Ed.). (2013). *Documents of Contemporary Art: Documentary*. London: Whitechapel Gallery.

Stengers, I. (2010). *Cosmopolitics I*. Minneapolis: University of Minnesota Press.

Stewart, K. (2010). Afterword: Worlding Refrains. In Gregg & Seigworth (Eds). *The Affect Theory Reader*. Durham: Duke University Press.

Stiegler, B. (1998). *Technics and Time, 1: The Fault of Epimetheus: The Fault of Epimetheus*. Stanford, California: Stanford University Press.

Strauven, W. (Ed.). (2014). *The Cinema of Attractions Reloaded*. Amsterdam: Amsterdam University Press.

Stoker, B. (2016). *Dracula*. Pan Macmillan India. First published in 1897.

Sullivan, G. (2005). *Art Practice as Research: Inquiry in the Visual Arts*. Thousand Oaks, Calif: SAGE Publications, Inc.

Ge, Sun. (2000). How does Asia mean? (Part I), *Inter-Asia Cultural Studies*, 1:1, 13-47. Accessed from <https://doi.org/10.1080/146493700360980>

Sundaram, R. (2010). *Pirate Modernity: Delhi's Media Urbanism*. Abingdon Oxon; New York. Routledge

Taussig, M. (1992). *Mimesis and Alterity: A Particular History of the Senses*. New York: Routledge.

Taussig, M. (2011). *I swear I saw this: Drawings in Fieldwork Notebooks, Namely My Own*. Chicago; London. University of Chicago Press.

Taylor, M. (2001). *Imaginary Companions and the Children Who Create Them*. Oxford University Press.

Telotte, J. P. (1999). *A Distant Technology: Science Fiction Film in the Machine Age*. Hanover: Wesleyan University Press.

The New York Times. (2019). The Rise of Yiwu: Untold Stories, Unsung Heroes from the Wholesale Capital. Retrieved from <https://www.nytimes.com/paidpost/china-daily/the-rise-of-yiwu-untold-stories-unsung-heroes-from-the-wholesale-capital.html>

Theodor W. Adorno, T.W. & Horkheimer (2002). M. Jephcott, E. (Trans). *Dialectic of Enlightenment: Philosophical Fragments*. Stanford: Stanford University Press.

Thompson, N. (2014). *Vice*. The Internet's Newest Subculture Is All About Creating Imaginary Friends: Welcome to the wild world of tulpamancy. Retrieved from <https://archive.is/6Y1TC>

Thomson, R.M. & Wamberg, J. (2022). *The Bloomsbury Handbook of Posthumanism*. New York: Bloomsbury Academic

Tidhar, L. (2018). Yiwu. *Tor.Com*. Retrieved from <https://www.tor.com/2018/05/23/yiwu-lavie-tidhar/>

Todd, Z. (2016). An indigenous feminist's take on the ontological turn: 'ontology' is just another word for colonialism. *Journal of Historical Sociology*, 29(1), 4–22.

<https://doi.org/10.1111/johs.12124>

Toffler, A. (1984). *Future Shock* (Reissue edition). New York Toronto London: Bantam. First published in 1970.

Tongson, K. (2019). *Why Karen Carpenter Matters*. Austin: University of Texas Press.

Tsing, A.L. (2012). Unruly Edges: Mushrooms as Companion Species. *Environmental Humanities*. (Vol 1, issue 1, pp.141-154). doi:10.1215/22011919-3610012

Tsing, A. L. (2015). *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*. Princeton, NJ: Princeton University Press.

Tsing, A.L., Bubandt, N., Gan, E. & Sawnsen, H.E. (Eds.) (2017).

Arts of Living on a Damaged Planet: Ghosts and Monsters of the Anthropocene.

Minneapolis: University of Minnesota Press.

Turkle, S. (2012). *Alone Together: Why We Expect More from Technology and Less from Each Other*. New York: Basic Books.

Turner, V. (1970). *The Forest of Symbols: Aspects of Ndembu Ritual*. Ithaca, NY: Cornell University Press.

Tylor, E. (2016). *Primitive Culture: Volume I*. Mineola, New York: Dover Publications Inc.

Uncertain Commons. (2013). *Speculate This!* eBook. Available from https://www.amazon.co.uk/Speculate-This-uncertain-commons-ebook/dp/B00D2O1MKS/ref=sr_1_1?s=books&ie=UTF8&qid=1551129998&sr=1-1&keywords=speculate+this

Voit, R., Schaden, C. & Siegel, S. (2016). *Robert Voit: The Alphabet of New Plants*. Ostfildern Berlin: Hatje Cantz

Wainwright, O. (2014). Santa's real workshop: the town in China that makes the world's Christmas decorations. *The Guardian*. Retrieved from <http://archive.fo/scIfK>

Waldron, D. (2018). *New Nonfiction Film: Art, Poetics, and Documentary Theory*. New York: Bloomsbury Academic USA.

Wallace, M. (2016). *Risk Criticism: Precautionary Reading in an Age of Environmental Uncertainty*. Ann Arbor: University of Michigan Press.

Ward, P. (2006). *Documentary: The Margins of Reality*. London: Wallflower Press.

Warner, M. (2004). *Fantastic Metamorphoses, Other Worlds: Ways of Telling the Self*. Oxford: OUP Oxford.

Warwick, K. (2004). *I, Cyborg*. Reprint edition, University of Illinois Press.

Wells, H. G. (2018). *The Time Machine*. SDE Classics. First published in 1895.

Wells, H.G. (1999). *The First Men In The Moon*. India: Rupa. First published in 1901.

West Heavens. (2017). Yiwu Project. Retrieved from <http://westheavens.net/en/projects/finished/661>

Wikipedia. (2018). Yiwu International Trade City. Retrieved from https://en.wikipedia.org/wiki/Yiwu_International_Trade_City#History

Wikipedia. (2018). Till We Meet Again. Retrieved from https://en.wikipedia.org/wiki/We%27ll_Meet_Again

Wikipedia. (2018) Sophia (robot). Retrieved from [https://en.wikipedia.org/wiki/Sophia_\(robot\)](https://en.wikipedia.org/wiki/Sophia_(robot))

Wikipedia. (2017). Bollywood. Retrieved from <https://en.wikipedia.org/wiki/Bollywood>

Wilde, O. (2015). *The Picture of Dorian Gray*. Fingerprint! Publishing. First published in 1890.

Williams, K. (2007). *H. G. Wells, Modernity, and the Movies*. Liverpool: Liverpool University Press.

Winston, B. (1993). The Documentary Film as Scientific Inscription in Theorising. In Renov, M. (Ed). *Theorizing Documentary* (p.37-57). New York: Routledge.

Winterson, J. (1996). *Art Objects: Essays on Ecstasy and Effrontery*. London: Vintage.

Wolfe, C. (2010). *What is Posthumanism? Vol.8 of Posthumanities Series*. Minneapolis: University of Minnesota Press.

Wolf, N. (2014). Thinking Between Day and Night or for Those Awake at Dawn. Delhi: Art India Magazine. Retrieved from <https://archive.is/THOxT>

Wu, Cheng'en. (2016). Waley, A. (Trans). *Monkey*. United Kingdom: Penguin Random House UK. The translation was first published in 1942

Xuanzang. (2017). Li Rongxi. (Trans). *The Great Tang Dynasty Record of the Western Regions*. USA: BDK America, Inc.mr

Yeats, W. B. (1989). *Easter 1916*. Retrieved from <https://www.poetryfoundation.org/poems/43289/easter-1916>

Yoshida, E. (2016). Life in the machine. *The Verge*. Retrieved from <https://www.theverge.com/2016/3/14/11223298/dead-slow-ahead-movie-review-sxsw>

Zournazi, M. (2003). *Hope: New Philosophies for Change* (1 edition). New York: Routledge.

Zurkow, M., Vorgan, V. (Eds) (2014). *The Petroleum Manga: A Project by Marina Zurkow*. New York: Peanut Books.

Filmography

Adams, J. (Creator). De Lespinois, P. (Director). (2002). *The Future is Wild*. [Mini-series]. United Kingdom, United States of America, Germany, Austria, Italy, France. BBC; Arte; ZDF; Animal Planet; Discovery Channel.

Ambo, P. (Director) & Dyekjaer, S. (Producer). (2007). *Mechanical Love*. [Documentary]. Denmark & Finland. Icarus Films.

Armstrong, F. (Director). Gillet, L. (Producer). (2009). *The Age of Stupid*. [Documentary]. United Kingdom. Spanner Films.

Bahrani, R. (Director) & Spielberg, A. (Producer). (2009). *Plastic Bag*. [Documentary]. United States of America. Noruz Films and Gigantic Pictures.

Bednar, R. (Director). Bicks, M., Hirsch, L. & Avellino, R. (Producers). 2009). *Earth 2100*. [TV programme]. United States of America.

Brothers Quay (Directors) & Griffiths, K. (Producer). (1986). *Street of Crocodiles*. United Kingdom. Koninck Studios; BFI Production Board; Channel Four.

Brooker, C. (Creator) & Brooker, C. & Jones, A. (Producers). (2011-19). *Black Mirror*. [TV series]. United Kingdom. Zeppotron (2011–13); House of Tomorrow (2014–19)

Cantore, J. (Creator). Klein, B. (Producer). (2006-07). *It Could Happen Tomorrow*. [Documentary]. United States of America. Atlas Media Corp.

Chaplin, C (Director & Producer). (1936). *Modern Times*. [Motion Picture]. United States of America. Charlie Chaplin Productions.

Cream Productions. (Producer). (2008). *Aftermath: Population Zero*. Canada. National Geographic.

D' Souza, D. & Sullivan, J. (Directors). Molen, G. & Sain, D. (Producers). (2012). *2016: Obama's America*. [Documentary]. United States of America. Obama's America Foundation.

De Lespinois, P. (Director). Copeland, J. & Cowan, J. (Producers). (2005). *Alien Planet*. [Docufiction]. United States of America.

De Vries, D. (Creator). (2008-10). *Life After People*. [Documentary, TV Series]. United States of America. Flight 33 Productions.

Haanstra, B. (Director & Producer). (1958). *Glass*. [Short, Documentary]. Netherlands.

Harris, O. (Director). (2013). *Be Right Back*. Black Mirror, Season 2, Episode 1. [TV Series]. United Kingdom. Zeppotron.

Haynes, T. (Director). Schneider, C. (1988). *Superstar: The Karen Carpenter Story*. [Experimental Short]. United States of America. Iced Tea Productions.

Herce, M. (Director). Alayón, J. A., Sijercic, J. & Durall, V. (2015). *Dead Slow Ahead*. [Documentary]. Spain; France. El Viaje Films; Bocalupo Films; Nanouk Films.

Ghose, G. (Director). Khanna, A. (Producer). (1997). *Gudiya*. [Motion picture]. India. PLUS Films.

Ghufran, I. (Director). Rajiv Mehrotra (Producer). (2011). *There is Something in the Air*. [Documentary]. India. Public Service Broadcasting Trust.

Ghufran, I. (Director). (2015). *In Her Image*. [Short, Documentary]. India.

Gilbert, M. (Director). Tomchin, J.A., Grady, T. & Pacicovschi, D. (2018). *Silicone Soul*. [Documentary]. United States of America.

Gore, A. (Script). Guggenheim, D (Director). David, L., Bender, L. & Burns, S. (Producers). (2006). *An Inconvenient Truth*. [Documentary]. United States of America. Lawrence Bender Productions; Participant Productions

If We Had No Moon. (2009). [Documentary]. Discovery Channel.

Keiller, P. (Director). (1994). *London*. [Documentary]. United Kingdom.

Kovacevic, M. (Director). Divjak, I.P., Adamson, M., & Reid, R. (Producers). (2020). *Merry Christmas, Yiwu*. [Documentary]. Serbia; Sweden.

Kubrick, S. (Director & Producer). (1964). *Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb*. [Motion picture]. United Kingdom. Hawk Films.

Last Days on Earth. (2009). [Science special]. United States of America. ABC; The History Channel

Lewis, J. (Director). Hirsch, K. (Producer). (2010). *Outbreak: Anatomy of a Plague*. [Documentary]. Discover Channel.

Luksch, M. (2007). *Faceless*.

Madsen, M. (Director). (2015). *The Visit: An Alien Encounter*. [Documentary]. Denmark; Austria; Finland; Ireland; Norway. Indie Films.

Marker, C., Chapman, J. & Simeone, F. (Directors). (1981). *Junkopia*. [Documentary; Short, Avant-garde]. France. Argos Films.

Marker, C. (Director). (1962). *La Jetée*. [Sci-fi, Short]. France.

Marker, C. (Director). (1983). *Sans Soleil*. [Documentary]. France.

Marker, C. (Director). Angelo, Y., de Battista, G. & Marker, C. (Producer). (1997). *Level 5*. [Documentary]. France.

Masutanbi, K. (Director). Almond, P., Blight, J., Lang, J. Masutanabi, K. & Welch, D.A. (Producers). (2008). *Virtual JFK: Vietnam If Kennedy Had Lived*. [Documentary]. United States of America.

Méliès, G. (Director). (1902). *A Trip to the Moon*. [Motion picture].

Mickle, J. (Developed by). Moore, E., Turner, M. & Ham, C. (Producers). (2021). *Sweet Tooth*. [TV Series]. Based on Lemire, J. (2009-21). Team Downey; DC Entertainment; Warner Bros. Television

Nolan, J. & Joy, L. (Director). (2016-20). *Westworld*. [TV Series]. United States of America. HBO Entertainment, Kilter Films; Bad Robot Productions; Warner Bros. Television

Oppenheimer, J. (Director). Sørensen, S.B., Köhncke, A. & Uwemedimo, M. (Producers). *The Act of Killing*. [Documentary]. United Kingdom; Denmark; Norway. Final Cut For Real; DK.

Range, G. (Director). Range, G., Finch, S. Guiney, E. & Gutch, R. (Producers). (2006). *Death of a President*. [Docu drama]. United Kingdom. Film Four; Borough Films.

Resnais, A. (Director). Queneau, R. (Writer). (1959). *The Song of Styrene*. [Documentary]. France.

Salazar, J.F. (Director & Producer). (2015). *Nightfall on GAIa*. [Documentary]. Antarctica, Australia, Chile.

Sjoberg, J. (Director). (2020). *Call Me Back*. [Documentary]. United Kingdom.
Available at <https://vimeo.com/492057813>

Scott, R. (Director). Deeley, M. (Producer). (1982). *Blade Runner*. [Motion picture]. United States of America, Hong Kong. The Ladd Company; Shaw Brothers; Blade Runner Partnership

Vincent, S. & Brackley, J. (Creators). Fry, C. (Producer). (2015-18). *Humans*. [TV series]. United Kingdom; United States of America. Kudos; AMC Studios.

Watkins, P. (Director & Producer). (1966). *The War Game*. [Documentary]. United Kingdom. BBC.

Wollner, S. (Director). Frank, L., Bohun, D., Hess, A.G., Schäfer, A., Stolpe, V. & Kröger, T. (Producers). (2020). *The Trouble with Being Born*. [Motion picture]. Austria, Germany. Panama Film.

Zhang, Y. (Director & Producer). (2002). *Hero*. [Motion picture]. China.
Sil-Metropole Organisation; CFCC; Elite Group Enterprises; Zhang Yimou Studio; Beijing New Picture Film

Zemeckis, R. (Director). Gale, B. & Canton, N. (Producer). (1985). *Back to the Future*. [Motion picture]. United States of America. Universal Pictures; Amblin Entertainment.

Art Work

Franke, A. (Curator). (2020). *Animism*. A digital exhibition and research project. E Flux.

Ghufran, I. (2015). *Rehearsal for a Film*. Multi-channel video installation. Frise Kunstlerhuas, Hamburg.

Hoyn, S. (2019). *Rubber Wife: Living with a Sex Doll*. Photographs. Bird in Flight.

Magid, J. (2004). *Evidence Locker*. Read more about the project at <http://www.jillmagid.com/projects/evidence-locker-2>

Rottenberg, M. (2007). *Minus Yiwu*. Single-channel video, looped, ca.7'

Seymour, R.J. (2018). *Yiwu Commodity City*. Photographs and text. Harvard Business Manager.

Sherman, C. (2009). *Mannequins and Masks*. In this video Sherman discusses her use of masks and mannequins as props over the course of her artistic career. Art 21.

Additional Filmography

Ackerman, C. (1974). *Je, Tu, Il, Elle*.

Akomfrah, J. (1996). *The Last Angel of History*.

Almodóvar, P. (2011). *The Skin I Live In*.

Baichwal, J. (2006). *Manufactured Landscapes*.

Bong Joon-Hu. (2017). *Okja*.

Boote, W. (2009). *Plastic Planet*.

Cocina, J. & Leon, C. (2021). *The Bones*.

Cranor, R. (2008). *Touch*.

Dosa, S. (2014). *The Last Season*.

Dutta, A. (2011). *Son-chidi*.

Fleischer, R. (1973). *Soylent Green*.

Forbes, B. (1975). *The Stepford Wives*.

Garland, A. (2014). *Ex Machina*.

Gillespie, C. (2007). *Lars and the Real Girl*.

Gilliam, T. (1996). *12 Monkeys*.

Herzog, W. (2005). *The Blue Yonder*.

Hockey, D. (2013). *All Dolled Up: Love Dolls and Those Who Love Them*.

Jayanti, H. (2021). *Truth or Consequences*.

Jácome, J. (2017). *Flores*.

Jonze, S. (2013). *Her*.

Keiller, P. (1997). *Robinson in Space* & (2010). *Robinson in Ruins*.

Liang, T.M. (2001). *What time is it?*

Lynch, D. (1990). *Two Peeks*.

Madsen, M. (2010). *Into Eternity*.

Melitopoulo, A. & Lazzarato, M. (2016). *Assemblages & Life of Particles*

Miller, G. (1990). *A Mom for Christmas*.

O'Brien, T. (2020). *Memoirs of a Space-mother*.

Oshii, M. (1995). *Ghost in the Shell*.

Raffill, S. (1991). *Mannequin: On the Move*.

Rainer, Y. (1974). *Film about a woman who...*

Resnais, A. (1961). *Last year at Marienbad*.

Rouch, J. (1958). *I, a Black*.

Teptsov, O. (1987). *Mister Designer*.

Valadez, J. (2016). *The Head of Joaquin Murrieta*.

Vaz, A. (2018). *Atomic Garden*.

Welles, O. (1973). *F for Fake*.

Wenders, Wim. (2011). *Pina*.

Wu, Hao. (2018). *People's Republic of Desire*.

Yu, K.T. & Haibo, Yu. (2018). *China's Van Goughs*.

Zhang-ke, J. (2004). *The World* & (2007). *Useless*.