Chapter 2 'Made by Hand' Birgitta Hosea

Introduction: privileging the handmade

Although the mainstream animation industry has adopted digital production methods, the attraction of laborious hand-made methods for making animation persists in the independent sector. Why is this? What ideas and assumptions can be seen to underpin the notion of craft and crafting? What is specific about the handmade and what gives it such enduring appeal? This chapter will critically reflect on craft, 'craftivism' and the implications of working by hand.

It is my belief that the independent animation sector, in particular the community of practice especially associated with auteur or experimental animation, privileges the aesthetics of the handmade over that of the digital processes favoured in commercial production. By this I mean that handmade processes are seen as more "artistic" and of more value than digital processes. This statement is based on an experience of teaching animation at several institutions and attending many international festivals and exhibitions. I have observed a desire for tactile, physical experience in an era of digital synthesis and artificial intelligence; for a testament to a laborious process; for an authentic record of consciousness rather than a mass-produced, machine-made product.

Many of my students are dissatisfied with what they see as generic, massproduced, digital perfection and they want to use analogue techniques to create their own individual, signature style. Flying in the face of commercial animation practices, they want to use time-consuming handmade processes. They are fascinated with how to make "real" marks and artefacts with their hands that are not possible with the computer, and to make animation using traditional skills that do not rely on digital default production processes. The techniques that I refer to include frame-by-frame animation with hand drawing or painting, stop motion, paper cut-out collage, sand and fluids, direct animation on film, dark room photographic processes, manipulation of video signals – all analogue techniques that involve manual handling and fine motor co-ordination. This kind of work validates notions of the independent and artisanal as slow, laborious, thoughtful and well intentioned, thus oppositional to commercial industry content created for throwaway, mass entertainment and maximum profit. Yet, the comment on commercial animation suggested by this manner of working is implicit and critique resides at the level of form, rather than explicit reference to activism or political issues at the level of subject matter. So, are the aesthetics of the handmade a form of political critique or are they a form of populist nostalgia?

Craftivism: craft as critique

In her catalogue essay for the *Animate OPEN: Parts & Labour* exhibition, Lilly Husbands asserts that in the context of experimental animation, the discourse of craft provides an "outsider" critique of mainstream industrial productions. The spectacle of labour-intensiveness draws attention to the:

... close authorial connection between artist and artefact. They also persist in operating according to non-normative aesthetic, technical and representational paradigms. Indeed, experimental animations ... critique institutional and corporate culture either explicitly in their content or implicitly by resisting the hegemonic aesthetics of commercial entertainment. (Husbands 2016)

With this interpretation, hand-made images could be seen as a reaction to a Neo-Liberal agenda of mass-production, quantity over quality,

alienated workers and financial profit as driver of both content creation and production methods. The discourse of craft-led resistance is not restricted to the field of experimental animation. In other areas of society, a generation has reacted against mass production and returned to hand-crafted methods of production in a move that has echoes of the craft-led opposition to the Industrial Revolution that will be discussed later in this chapter.

For at least ten years now there has been a resurgence of interest in handcraft. Maker communities use social media and online platforms to share expertise and to create a global distribution network for their artefacts - for example, *Etsy*, a marketplace for the sale of handmade products that enables small-scale artisanal producers to sell their products internationally (Etsy, Inc 2018b). This is not restricted to traditional crafts, but also includes an appreciation of the skill in making with new technologies. Etsy's engineering team consider their work in coding to be a craft and run a blog called Code as Craft (Etsy, Inc 2018a). Indeed, the craft maker communities include many enthusiasts of DIY electronics and physical computing who share their knowledge through online tutorials and blogs. Make Magazine shares knowledge and tutorials online about how to make things - from furniture and fermentation to electronics and robotics – as well as running international Maker Faires, thus creating communities that are not just virtual but also actual (Maker Media. Inc. 2018). The Shoreditch Sisters Women's Institute are another community formed around contemporary interpretations of traditional crafts such as sculptural knitting, burlesque paper cutting and digital crafts such as making spider robots. They combine craft activities with activism, campaigning on important issues such as for gender equality and *against* female genital mutilation (FGM) and female detention, through support for the women held at Yarl's Wood Female Detention Centre (Shoreditch Sisters Womens Institute 2017).

Although some commentators regard the trend towards contemporary crafting as a return to the material in opposition to the virtual world of the digital and the internet, rather this turn to craft can be seen as engendered by the digital. In her article on contemporary art and new media, "The Digital Divide", Claire Bishop considers the digital to be so ubiquitous to contemporary culture that a reaction to it serves on a deep level as "the shaping condition – even the structuring paradox – that determines artistic decisions to work with certain formats and media" (Bishop 2012, 436). Indeed, the platforms of social media can be seen

not only to facilitate craft maker communities, but also to shape their agendas of sharing and participating in acts of creation. Moreover, the objects they make are not simply given away, sold or forgotten about. Their status as objects could almost be seen as secondary to their status as photographs. As a consequence of online promotion on social media, many craft products are designed to be camera-ready for posting on Instagram, Facebook, Twitter, Snapchat etc. (Johnson 2008, 30).

Members of these communities regard themselves as reconnecting with material processes and reacting to corporate capitalism and the planned obsolescence of consumer products through making and repairing things themselves. The Maker Movement Manifesto references crafters, hackers and tinkerers, who make, recycle, upcycle and thus cut waste and air miles. It stresses going beyond purely personal expression and learning new skills, by encouraging sharing, participation and support of others. A growing international movement of Repair Cafes offers a place to get support to fix household items, thus cutting down consumer waste and encouraging intergenerational skill sharing (Repair Cafe 2018). Celebrating their independence from mainstream, consumerist capitalism in their book, Handmade Nation, Faith Levine and Cortney Heimerl affirm the indie craft and maker community as accessible – anyone can do it – authentic and personal (Levine and Heimerl 2008). Betty Greer has coined the term craftivism to define this combination of ideas about making things by hand and political activism. For Greer the act of making is empowering and democratic. Although it invites dialogue on a smaller scale than mass demonstrations, it can build activist communities through practice and be transformational on a personal level. She argues that, "the small scale of craftivism is vital. It turns us, as well as our work, into vessels of change" (Greer 2014, 12–13). A number of historic precedents point to connections between craft and political activism, such as Gandhi's promotion of the local spinning of khadi (homespun cloth) as a form of resistance against the British Empire's colonial monopoly on the textile trade in India, thus promoting Indian independence and self-sufficiency (von Busch 2014, 126).

Looms, Luddites and Labour

There are many parallels between our new Digital Age and the Industrial Revolution. During both eras changes in technologies of production and distribution led to massive paradigm shifts in employment patterns, the distribution of wealth, and the grand narratives by which we interpret the world. In this previous era of technological change, craft was at the forefront of critiques of new technology. During the Industrial Revolution in the UK, skilled and specialist artisans, in particular weavers, found their traditional production methods replaced by mechanical manufacturing processes. This change was not simply due to technological determinism or some abstract notion of "progress" or improvements in machinery. It was driven by a desire for greater profit and a new way to organise the labour force that could decrease wages (Thompson 1980, 309).

Traditionally cloth had been produced from flax and wool as a cottage industry with weavers working together as a family unit to spin, wind bobbins, and weave cloth on individual looms. A highly skilled artisan, who would have served a long apprenticeship to learn their trade, headed these self-organised units. They could determine their own hours and organise their own tasks in order to meet their production targets (Thompson 1980, 339). However, this way of life became obsolete with new materials and manufacturing processes. First, the mass importation of cheap cotton from slave plantations in the West Indies and the American South replaced indigenous materials like flax and wool (Hobsbawm 1999, 210: Broadberry and Gupta 2009, 284). Secondly, spinning by hand was replaced with new and more efficient inventions like the Spinning Jenny. Finally, steam powered mechanical mills and looms replaced the hand weaving of cloth, which resulted in the production of three or four times more cloth by the same workforce (Thompson 1980, 315). Machines such as the Jacquard Loom, a precursor of the modern computer, were programmed with punch cards to reproduce complex linear designs and patterns that were woven into cloth on an industrial scale. Although the Industrial Revolution is generally thought of as a period of rising living standards, the weavers, as a group, did not share in the benefits of economic progress, but suffered a drastic decline in their wages and working conditions (Thompson 1980, 343). With this new technology, the manufacture of textiles could now be broken down into a series of less skilled tasks, which meant that women, children and unskilled, starving Irish immigrants could replace skilled, English male workers at lower wages (Thompson 1980, 335). As there was a vast pool of unemployed who, despite not having served an apprenticeship, were now able to undercut skilled workers (Thompson 1980, 328), seasonal labour was employed to complete orders with none of the loyalty to long-term employees that small businesses had

(Thompson 1980, 310). In the new factory production system there was an emphasis on efficient working practices with standardised hours and hazardous conditions – people might get terrible injuries because their hair or fingers caught in the looms.

In opposition to these changes in the textile industry, the Luddites formed a workers' protest movement from 1811 to 1816 with popular support in tightly knit communities, who smashed and burned the hated new technology. Between 1811-12 in Nottinghamshire around 1,000 frames were broken (Thompson 1980, 585). The Frame Breaking Act of 1812 made this a capital offence. At the peak of disturbances in 1812, 12,000 troops were stationed between Leicester and York to prevent machine wrecking and thirty Luddites were hanged by the authorities (Websdale 2001, 226). The term Luddite is now used to signify animosity towards new technology. However, the Luddites were selective. They only broke the frames of those who were cutting wages (Thompson 1980, 606) and only machinery that manufactured "cut-price" goods, thus, carrying on their traditional practices of rejecting substandard work (Thompson 1980, 583). E. P. Thompson concludes that the Luddites were not against technical progress, per se, but the loss of their skills, the lowered status of their craftsmanship, and the decline in their economic status and living standards. Rather than the Luddites themselves being criminal, he argues that it was actually the "factory-owner or large hosier or cotton-manufacturer, who built his fortune by these means" who was engaging in "immoral and illegal practices" (Thompson 1980, 600). Thompson's argument can be extended to a wider critique of colonialism. This combination of cheap, raw materials that were a product of slavery, a division of labour into the less skilled, and therefore less well-paid, tasks and market protectionism resulted in massive profits for the factory owners, but also increased trade for the British Empire. By the start of the nineteenth century, British policy had destroyed the local textile industry in India, which as a consequence began to import its cloth from Britain. British colonies, such as India and parts of Africa, were important, monopolised markets for British trade and manufactured goods. The skewed competitive advantage of colonialism stimulated manufacture at home as well as providing cheap raw materials (Hobsbawm 1999, 127, 209; Broadberry and Gupta 2009, 279–84). Thus, the Industrial Revolution was founded on the exploitation of domestic workers, prevention of international competition

(suppression of India's superior product), and reliance upon the products of slavery and trade routes facilitated by colonialism.

As a reaction to the alienation and de-skilling of workers in the Industrial Revolution, Victorian art critic and social commentator, John Ruskin, set out to celebrate the nobility of labour and to promote an ethics of craft production. His three-volume book on Venice and its architecture. The Stones of Venice (1851-3), and in particular the chapter on the Gothic – "The Nature of Gothic" - was hugely influential on a generation who rejected the values of mechanical mass production: in particular William Morris. In "The Nature of Gothic". Ruskin argues that art and architecture could have moral and spiritual values which, rather than profit motives, should underlie production. The term "gothic", originally used to describe the Northern European architecture of the Middle Ages, was considered to be a derogatory reference to the "barbarous" tribes of the North who overthrew the Romans, thus, implying that this work was somehow crude and uncivilised in comparison with the classical architecture of the Greeks and Romans that was revived during the Renaissance (Ruskin 1892, 7–8). However, Ruskin considered gothic architecture to be full of Christian values and the classical architecture of the Greeks and Romans to be pagan.

Contrasting the division of labour in newly industrialised capitalist societies with the methods of production and craft skills deployed in the creation of gothic architecture, Ruskin argues that unskilled manual labour is degrading and that labour should have dignity. Working people were becoming disaffected because of their lack of agency and creativity in the tasks they were asked to undertake: "...the kind of labour to which they are condemned is verily a degrading one, and makes them less than men" (Ruskin 1892, 20). The division of labour into a series of monotonous, unskilled tasks provides little mental stimulation for the worker:

It is not, truly speaking, the labour that is divided; but the men: Divided into mere segments of men, broken into fragments and crumbs of life; so that all the little piece of intelligence that is left in a man is not enough to make a pin, or a nail, but exhausts itself in making the point of a pin or the head of a nail. (Ruskin 1892, 22–23)

These ideas about the dehumanising effect of unskilled, repetitive tasks echoes some of the sentiments of *The Communist Manifesto*:

Owing to the extensive use of machinery, and to the division of labour, the work of the proletarians has lost all individual character, and, consequently, all charm for the workman. He becomes an appendage of the machine, and it is only the most simple, most monotonous, and most easily acquired knack, that is required of him. (Marx and Engels 1969, 18)

Although originally published a few years before *The Stones of Venice* in 1848, and, despite similar concerns, Ruskin is unlikely to have been influenced by *The Communist Manifesto*. It was originally written by Karl Marx and Friedrich Engels in German and was not widely known in the UK at the time of writing. Indeed, rather than Marx, it was Ruskin, along with William Morris, who were amongst the key figures in the formation of the British socialist movement. (Mathis 2016)

Instead of the drudgery of factory work, Ruskin had a vision of "healthy and ennobling labour" (Ruskin 1892, 23) in which "the labourer's mind had room for expression" (Ruskin 1892, 31). This notion of creativity and agency in labour opposed a traditional class division between the gentleman thinker, who originated ideas, and the manual labourer who executed those ideas and whose contribution was accorded lesser significance (Ruskin 1892, 28). Ruskin also believed that physical labour had educational value in developing skills of "observation, accuracy and physical control" (Frayling 2017, 83). He went on to apply these ideas to his teaching practice. In the autumn of 1874, Ruskin engaged his students at Oxford University – including Arnold Toynbee and Oscar Wilde – in digging a road by hand (Frayling 2017, 85).

William Morris read "The Nature of Gothic" as a student and it became a foundational text for the Arts and Crafts Movement. His own Kelmscott Press printed a version of this chapter as an illustrated book. Although today perhaps primarily remembered for his wallpaper and fabric designs, over and above his work as a textile designer, Morris was also a poet, book designer, publisher, utopian and radical socialist campaigner. In reaction to industrialisation and the age of the machine, his Preface to the version of Ruskin's text that he published emphasises the text's key message that the creation of art has the potential to provide satisfaction in life: "art is the expression of man's pleasure in labour; that it is possible to rejoice in his work" (Ruskin 1892, i). Calling for individuality not standardisation, humanity and morality rather than the profit motive, Morris believed in a rejection of "tacky", mass-produced goods in favour of well-made, hand crafted goods that were both useful and beautiful. This was not simply about decorative aesthetics. His main concern was not with end products but the establishment of a society in which all could enjoy the freedom to be creative. In a lecture from 1880 he said he was aiming for "[a]rt made by the people and for the people, a joy to the maker and the user" (Naylor 1980, 108). This was not just a rejection of materialism, rather a desire for design in a social context, the democracy of art, and to demonstrate the pleasure in skilled artisanal production methods.

Both the Arts and Crafts Movement and the contemporary craft revival can be seen as predicated on the ideal of craftspeople completely fulfilled through their work as opposed to industrial workers who are, in Marxist terms, alienated from their labour. The former is in control of tools; the latter is used as a tool. However, there is a contradiction at the centre of this utopian vision of an egalitarian society in which craftspeople reject mechanisation and are fully employed in manual artisanal production so that everyone could benefit from high quality goods. Although the Arts and Crafts movement produced beautiful objects designed to be both aesthetically pleasing and to provide high levels of satisfaction in their making. Morris grew frustrated that work produced to his high standards of craftsmanship became luxury items that were too expensive for ordinary people to afford due to their high labour costs. There is a parallel here with the cost of producing animation. Although many animators personally find the labour of working by hand enjoyable, high production costs mean that it is unlikely to be commercially viable for the animation industry to produce feature films or TV series using these methods. Handmade work costs both time and money to make and this is not compatible with a market-driven economic model that values profit over quality.

In the case of animation, the authority of the animator's skilled labour can be seen to have become undermined by the adoption of digital processes. Mihaela Mihailova argues that in the digital era the traditional myth of the animator as omnipotent creator is erased by production teams of animators and programmers using complex systems; the technology leads to a loss of skilled jobs in favour of outsourcing to cheaper labour resulting in a reduction to the skill status of the profession (Mihailova 2013). In this argument, the individual animator is seen as being increasingly sidelined, alienated from the products of their labour and replaced by the operation of sophisticated tools in which the craft skill resides. However, as in the days of the Industrial Revolution, this is

not simply determined by the technology itself, but in how the technology is used for a cheaper division of labour.

Although there may be many anxieties around the de-skilling of animators and the replacement of their artisanal, tacit knowledge by sophisticated digital processes, the erasure of the animator's individual contribution has been a product of the studio production system since the early days of animation. It is not simply a result of the introduction of new technology, but a product of the way in which the workforce is organised. Ever since the 1910s when John Randolph Bray adopted transparent cels and divided his labour force into a Fordist assembly model, specialised tasks – creating backgrounds, keyframes, in-betweens or ink, trace and colouring – have been allocated to different workers, none of whom has overall authority for the creative process as this is reserved for the Director (Callahan 1988). Digital technologies extend this model globally, enabling tasks to be outsourced internationally to a cheaper pool of labour.

Materiality and Nostalgia

If mainstream, commercial animation is thought of as a place in which the voice of the animator and their individual authorship has become subsumed, then hand-made, artisanal animation could be seen as a return to Ruskin and Morris's ideas of the pleasure in making in which there is a recognition of the contribution that each worker makes: a delight in the animator's labour; a celebration of the time it took to make the film; an indexing of manual skills. Artist Vicky Smith points out that practising in this way can be hard work: "non-industrial handmade animation practice also requires systematic repetitive actions that are frequently guite physically arduous" (Smith 2015, 7). For my own film, Erasure (2017), the subject matter, materials and techniques used are all conceptually linked to the theme and physical practice of manual labour. Thus, the manner in which it is made forms a crucial part of the film's intended meaning. Part of a series of works based on memories of my previous employment as a domestic and hospital cleaner, performative processes are used in which the marks left behind by metal scouring pads, hand-manipulated ink, bleach, dirt, and cleaning products are combined with digital tools to re-enact and record the invisible labour of domestic workers. This highlights the lack of recognition for all the work they do and the erasure of working class voices in society. At one point, a

disembodied rubber-gloved hand wipes away the digital surface to reveal the coding of the images underneath before erasing the workers themselves.

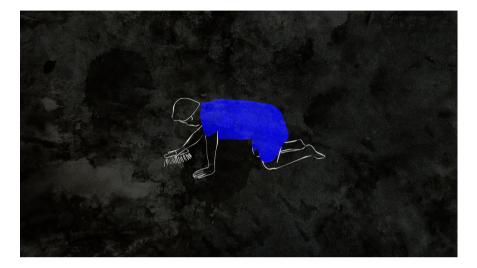


Fig. 2.1 Erasure (Birgitta Hosea, 2017)

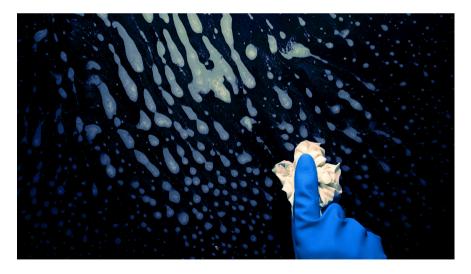


Fig. 2.2 Erasure (Birgitta Hosea, 2017)

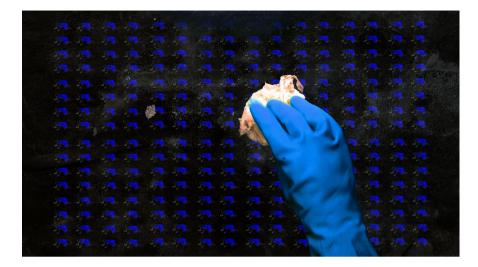


Fig. 2.3 Erasure (Birgitta Hosea, 2017)

Making animation by hand involves a physical activity that leaves a mark behind where the animator's body has come into contact with a surface. Indexical marks, that can only have been made by hand, affirm not only that the hand was present, but also individual subjectivity. The act of drawing, for example, traces a human activity in marks - how the hand and the wrist moved while holding a pencil on a sheet of paper. The drawing records the aftermath of an action. It shows the trace of the presence of an artist's body. the record of a performance (Hosea 2010, 364–66). The material itself bears a trace of the artist's presence, like a reliquary, which guarantees its authenticity as an original work of art by that individual. This is beautifully illustrated in Vicky Smith's film, Noisy, Licking, Dribbling and Spitting (2014), in which she explores chance, spontaneity, and a direct relationship between the material of film and the artist's body. The mouth alone is used as a tool, as she licks, spits and dribbles paint directly onto the filmstrip. This technique gives her an intimate and unpredictable relationship with the resulting marks. The splats of paint and spit drip onto the audio track which generates "noisy rasps and skidding sounds" (Smith 2016). In this film, there is a clear record of Smith's presence through her actions and own bodily fluids.



Fig. 2.4 Noisy, Licking, Dribbling and Spitting (Vicky Smith, 2014)

The notion of recording the labour taken to make animation through material processes, is not just an exploration of physicality, but also an exploration of the materials used. Part of the identity of the handmade is a direct relationship to real materials through a sense of touch. There is a sensuality that is evoked by the use of actual materials that make us think of things we have previously touched ourselves. Writing about crafting in general, Inga Hamilton captures a sense of this haptic experience:

And I know of other craftspeople who are on their knees late at night, smashing earth into just the right type of crumbliness, picking up tiny stitches in a pattern till their eyes are sore, slicing and burning their fingers on hot metal and glass with ever-patient exactness in their alchemy. None of it makes sense in a time-andmotion study... But the obsession for craftsmanship and respect for the material is like an eternal itch in the back of our brains... (Hamilton 2014, 48) In her article, "Meticulously, Recklessly Worked Upon: Direct Animation, the Auratic and the Index", Tess Takahashi reflects on direct animation in which artists, such as Norman McLaren or Len Lye, use various processes to work directly onto the surface of film stock. Takahashi considers direct animation to be a response to a crisis of authenticity in the image brought about by digital techniques, and asserts that the direct trace of the artist's body guarantees the authentic artistic value of the work:

Hand-drawn and painted films... index the process of their production... Films in this mode rely on the assertion that artist, worldly referent, and medium were present at the site of the film's production for their claims to immediacy, presence, and singularity. Although the spectator cannot touch the film, the material body and testimony of the filmmaker can serve as the guarantee of authenticity. "I saw" is supplemented by "I found", "I touched", "I made" and "I bring to you" (Takahashi 2005, 172–73).

For Takahashi, the physical connection between the artist's body and the material of film opposes the "easily produced digital effects" (Takahashi 2005, 166) brought about through the advent of digital production methods that she argues have brought about a crisis in avant-garde filmmaking practice just as film itself became obsolete as a medium. In particular, she is disturbed by the idea of the computer's "automatic functions". In doing the work for us computers seem "to remove human intentionality from the creative process" thus revealing a "continuing anxiety about the relationship between human being and machine" (Takahashi 2005, 168–69). Since touch screen devices, tablets or motion capture equipment are also means by which to record a trace of contact with the artist's body, Takahashi's argument about direct animation as an art form of the avant-garde relies upon a conceptualisation of film stock as an authentic and auratic material that produces a singular and original result. It is dependent upon a nostalgic conceptualisation of materiality as purely analogue and a work of art as something that cannot be reproduced.

The notion of analogue film as guarantor of authenticity can be seen in the art world more generally. As Erika Balsom (2013) and Claire Bishop (2012) have noted, it has only fairly recently become popular for examples of the moving image to be exhibited in art galleries and, in particular, it is often analogue film that is projected for display rather than

digitally generated content. Bishop comments that, "[t]oday, no exhibition is complete without some form of bulky, obsolete technology — the gently clunking carousel of a slide projector or the whirring of an 8-mm or 16-mm film reel" (Bishop 2012, 426). In parallel with the revival of interest in craft, this turn to materiality could be interpreted as a turn to the substantial and authentic in an age of faked images and fake news. This is, however, a recent interpretation of the status of analogue film which was designed as a medium of reproduction.

To turn to Walter Benjamin's "The Work of Art in the Age of Mass Production" (1935) in which the concept was introduced, the auratic is defined as pertaining to an original piece of work that is unique, authentic; that is situated in a significant context within a particular tradition; and that going to see it is like a pilgrimage or a ritual. What is often overlooked in contemporary readings of this text, however, is that he was not bemoaning a withering of the aura. Indeed, in theorising about the potential for mechanical reproduction to create art for a "classless society", he argues that "creativity and genius, eternal value and mystery" are "outmoded" concepts, which could lead to a Fascist understanding of art (Benjamin 1969, 218). Rather than it in itself having an aura, Benjamin argued that the medium of photographic film removed the original time, site, presence and authenticity of an object or live performance that it was used to portray, and resulted in "the liquidation of the traditional value of the cultural heritage" (Benjamin 1969, 221). Due to its potential for reproducibility, "[m]echanical reproduction is inherent in the very technique of film production" (Benjamin 1969, 244); film was an art form that could be made available to a mass audience rather than an elite few.

Although Benjamin was writing about live action rather than cameraless film, following on from his arguments, the direct use of film stock as a material of origination doesn't guarantee that we are seeing the original artwork. An audience is unlikely to see the original version of the film. We see a mechanical print of it or a digital copy: a reproduction. As a film is a recording, each time it is played back it will appear the same. Even if it was a one-off, unique piece of film that one has to travel from afar to see, this does not necessarily make it avant-garde or counter-cultural. Indeed, rare and original, handmade work that *is* auratic and not reproduced appeals directly to capitalist commodity culture and its scarcity has added value as it becomes an object that is easy to package, buy and sell. Bishop points out that, in returning film to a cultic status,

the use of analogue film in galleries has become fashionable rather than oppositional: "The continued prevalence of analogue film reels and projected slides in the mainstream art world seems to say less about revolutionary aesthetics than it does about commercial viability" (Bishop 2012, 427). Furthermore, she points out the contradiction involved in applying Benjamin's concept of aura to film. Writing about the increasing incorporation of analogue film into the gallery as it becomes obsolete as a commercial format. Balsom notes that while Benjamin considered cinema to be a "primary agent in the liquidation of cult value" this has been reversed by its incorporation into the gallery as a rare and historic commodity: "Cinematic ruins and cinematic refuse appear within the museum and gallery as so many relics of another age" (Balsom 2013, 17–18). Balsom concludes that the motivation behind the use of moving image in the art gallery is symptomatic of an "increasing spectacularization of the museum space" as art itself seeks to incorporate popular culture and to become mass entertainment (Balsom 2013, 31).

If the use of obsolete formats can be seen as a form of nostalgia for the past. so can craft techniques. For Christopher Frayling the myth of the "happy" artisan" behind the Arts and Crafts movement and the recent "craft revival" are "nostalgia masquerading as history" based on a retrospective idealisation and ennobling of a past in which craft activities employed only a minority of the workforce and working conditions were not always ideal (Frayling 2017, 64–66). Rather than glorifying the past without question, it is important to maintain a critical perspective. In his book, The Invention of Tradition (2000), Eric Hobsbawn points out that the concept of tradition needs to be interrogated. He contends that tradition is not something neutral and eternal, but a set of accepted practices and rituals that legitimise and normalise a particular world-view or value system and are designed to "inculcate certain values and norms of behaviour by repetition, which automatically implies continuity with the past" (Hobsbawm 2000, 1). This can be observed in the use of 'traditional values' in advertising. Frayling comments on how nostalgia for craft is used to conjure up ideas of past values and quality (Frayling 2017, 9). Advertising phrases pertaining to the language of craft such as "crafted" or "hand built by robots" confer the values of a bygone age (Frayling 2017, 61). Frayling cites Raymond Williams's The Country and the City (1973) for its discussion of writers going back to 1769 in "an unbroken chain of 'retrospective regret' for an age which had just passed – and which was usually thought of being on its last legs during

the childhood of the writer" (Frayling 2017, 63). Indeed, each age has nostalgia for a better time, for the time when the writer was young.

This nostalgia for childhood is especially manipulated in adverts shown during Christmas to encourage greater consumption than normal. With its appeal to memories of childhood, animation is an especially appropriate form for this. As pointed out by artist, Alan Warburton, in "Spectacle, Speculation, Spam" (2017), a talk he gave at the Whitechapel gallery for an Edge of Frame seminar on experimental animation, the use of bygone craft skills is fetishised in John Lewis Christmas advertising for no purpose other than spectacle. There is no functional purpose in using this method of making animation. The Bear and the Hare (dir. Elliot Dear & Yves Geleyn, 2013) works hard to look handmade, but is actually primarily digital with laser-cut elements animated by hand. According to Warburton, the "Making of" video that shows the labour behind the animation has had over 26 million views on YouTube. He argues that, rather than the film itself having primary significance, unnecessary labour is the real spectacle with this fetishised, analogue craft practice very effectively reaching an audience beyond that of the televised advertisement (Warburton 2016). The laboriousness and painstaking nature of production becomes part of the marketing strategy. This idea could be extended to the promotion of other stop motion films such as The Boxtrolls (dir. Graham Annable and Anthony Stacchi, 2014) or Kubo and the Two Strings (dir. Travis Knight, 2016), where, as with other animated films, the "Making Of" has become part of Laika's marketing strategy. Their hybrid process involves a sophisticated library of replacement parts that are created by CGI modelling and then 3D printed for hand manipulation on set. It is hard to understand why the manual stop motion process was necessary at all beyond a fetishisation of virtuoso craft and labour-intensive processes. The films could just as well have been CGI animation as the result is so perfect that it no longer looks handmade. By the time the rigs and armatures have been digitally removed, the textures become so smoothed out that, to all intents and purposes, it looks synthetically produced rather than handmade. In these examples, craft as a method of production is foregrounded in the marketing material for the purpose of spectacularising the labour, while the resulting aesthetic looks digital. All that effort was unnecessary and digital tools could have been used for an identical result

Aside from production technique, the physicality of the materials used in animation can also be invoked for nostalgic purposes.

This is a trend in contemporary Chinese animation. The beautiful ink animations inspired by classical Chinese ink painting that were made by the Shanghai Film Studios, culminating in Feelings of Mountains and Water (dir. Tei Wei, 1988), are seen as a peak of achievement in Chinese animation that cannot be repeated because of the high labour costs and secrecy about the original production methods. A number of attempts have been made to create a perfect formula to recreate this look digitally, for example Ink (dir. Niko Tziopanos, 2009), an ident for Central Chinese Television that aims to combine ancient and modern methods to tell the history of China through the medium of ink. This nostalgia for ink and water colour is usually interpreted as a desire for heritage and national cultural identity in animation in the face of bland global content, however it could also be interpreted as a mourning for the loss of state sponsorship for animation since the opening up of the Chinese economy and the new market-driven animation industry has reduced costs. This desire for industrial efficiency and profit has resulted in less time allocated to the labour involved in animation production than under the older state system and, therefore, traditional ink painting as a form of animation is no longer feasible. Thus, despite a nostalgia for traditional art styles in Chinese animation, more formulaic types of industrially produced animation dominate the mainstream rather than the hand crafted ink productions that define the golden age of Chinese animation.ⁱ

Autographic Mark-Making

So far it has been argued that the handmade foregrounds the labour used in the making process and, therefore, counters the idea of the machine made or the reproduced to engage with nostalgic notions of individuality. The handmade also evokes a conceptualisation of art as an expression of individual consciousness rather than something produced by non-human technology or the merging of identities within a team. Something made by hand is considered personal and unique like a signature and, thus, the term *autographic* mark making refers to an individual mark that could only have been made by one person and implies the indexical presence of their body. This notion, however, engages with outmoded discourses of the 'artist' as privileged expresser of individuality and subjectivity. Since the 1960s this has been challenged by a series of artists who dematerialised the art object through reproduction, inter-mediality, action, performance, collaboration and participation to engage with issues such as context, site, audience interaction and social critique rather than to express individual consciousness. Writing about the use of analogue film in the art world, Claire Bishop points out the irony and conservatism of a return to singular, material objects (in the form of analogue film) and the Romantic myth of the artist/author as originator of meaning in a period of interest in art that is social, dialogic and participatory (Bishop 2012, 427–28). Rather than simply visualising the consciousness of one individual, contemporary art values work that demonstrates contextualisation, social interaction, intersubjectivity and inter-textuality as well as the labour that went into its construction.

Aside from the question of the relevance of an autographic approach to mark-making, is it the act of working by hand itself that automatically confers a distinctive and individual style? Traditional animated films made under the Disney factory production system were all hand painted on cel. However, the aim was not for individuality to shine through, but for a unified house style within a context of team working; as with the handmade itself, the whole concept of autographic, personal mark-making only has significance if there is something in opposition to it. If the autographic refers to an individual and genuine mark inscribed by an identifiable and unique artist, its complement is the *allographic.* This term is taken from Nelson Goodman's *Languages of Art* (1968) and is used to describe a form of art practice in which a set of instructions for an artwork is given to another to be completed. This could take the form of a letter, a score, a script, or computer code. The Other who completes the work could be another artist, a technician, an assistant, a machine, a factory or a computer.

In a forthcoming chapter of *Performance Drawing: New Practices Since the 1960s*, Maryclare Foá and I trace a history of allographic art practices since the 1960s, in which the artist defines a set of instructions to be carried out by another and the concept behind the work takes precedence over the technique (Foá and Hosea 2019). Yet, even before this kind of conceptual practice, the hand of the artist worked in conjunction with a succession of mechanical aids for making images. During the Renaissance and afterwards, artists used various optical and mechanical devices to aid them in the drawing process such as gridded frames, sighting glasses, camera obscura, camera lucida, and silhouette devices to help them literally trace over reality and draw with accurate linear perspective.

The myth of the handmade is that it resists mechanical perfection and stands in opposition to the use of CGI technology that mediates and, thus, has an influence over the automatic marks that are made with it. This point is raised by Frieder Nake, a pioneer of digital art, who has argued that the use of computer software, a system made by someone else, implies that the user has a loss of control over the authorship of the marks that are made with it (cited in Hosea 2010, 356–57). Lev Manovich also advises criticality about the software that shapes our interactions with the world. In his article on Photoshop he asks:

> How does media authoring software shape the media being created, making some design choices seem natural and easy to execute, while hiding other design possibilities? How does media viewing / managing / remixing software affect our experience of media and the actions we perform on it? (Manovich 2011)

Although defaults and standard processes in software may control our choices, that can also be said about all traditions, disciplines and genres, which have their conventions and gatekeepers. The use of all media involves "learned" techniques and stylistic devices, which allow the form of the work to be identified within (or, indeed, in opposition to) a canon of practice. The philosopher Stanley Cavell uses the term "automatism" to refer to this process: "... in mastering a tradition one masters a range of automatisms upon which the tradition maintains itself, and in deploying them one's work is assured of a place in that tradition" (cited in Hosea 2010, 357). In this sense, the use of "off-the-shelf" commercial software comes with a set of implicit "automatisms", but so does the use of any other form of media and, indeed, any discipline has a set of automatisms. Although the two concepts may appear to be opposites, there is actually a great deal of "automatism" within handmade practice. Fravling uses a traditional term, *invisible colleges*, to refer to these shared assumptions in craft practice, which refers to "the social location of distinctive sets of 'technical and cognitive norms'" (Frayling 2017, 27). Following on from this, the issue for animation is not just about the use of automatic functions in software, but the uncritical adoption of animated conventions. For example, in character animation we may absorb the lessons of Preston Blair, who worked on Disney classics such as Fantasia (Walt Disney, 1940), *Pinocchio* (Walt Disney, 1940) and *Bambi* (Walt Disney, 1942), and characterise all walk cycles in terms of cliché – like the sneak, the

shuffle, the double-bounce walk (Blair 1994). Similarly, Richard Williams, Animation Director of *Who Framed Roger Rabbit* (dir. Robert Zemeckis, 1988) and author of the *Animator's Survival Kit* (Williams 2001), has been teaching generations of animation students gendered stereotypes about how to walk like a man or a woman (cf. Loader 2014).

Although the discourse of the autographic, hand-made mark implies unique and original, stylistic authorship, animation, like all other disciplines, is created within the context of cultural, historic and creative traditions. Aside from the allographic impact of the technology used, the individual animator is part of an inter-textual network of influences that can be accepted or defied. Manual mark-making with analogue materials does not necessarily provide the trace of individual consciousness. Cels painted by hand in industry factory production systems show that working by hand is not enough as a guarantor of the autograph, just as working digitally does not automatically lead to unexamined conformism. There is no direct correlation between the technique used to make animation and the originality of the work produced.

Imperfection

Part of the discourse of an autographic and original approach to mark-making is that it does not reproduce the styles of others. For Ruskin, the craftsperson who followed prescriptive rules and set patterns of ornamentation, such as in the ancient Greek traditions, lacked individual agency and had a "servile" relationship to their craft. In seeking bland perfection and orthodox compliance, this kind of craftwork erased humanity. In the Gothic, on the other hand, he saw Christian principles in the imperfection and crudeness of the ornamentation – for the meek, humble and sinning human being could not contemplate the arrogance of rivalling the perfect creations of their Christian God:

> ...the individual value of every soul... it confesses its imperfection... bestowing dignity upon the acknowledgement of unworthiness. That admission of lost power and fallen nature... the Christian makes daily and hourly, contemplating the fact of it without fear, as tending, in the end, to God's greater glory. (Ruskin 1892, 14)

According to Ruskin, the roughness and imperfection of gothic carvings shows us that making mistakes is human, raw and authentic. Their variety and multiplicity demonstrates life – birth, death and change:

...no good work whatever can be perfect, and THE DEMAND FOR PERFECTION IS ALWAYS A SIGN OF A MISUNDERSTANDING OF THE ENDS OF ART. ...imperfection is in some sort essential to all that we know of life. It is the sign of life in a mortal body, that is to say, of a state of progress and change. Nothing that lives is, or can be, rigidly perfect; part of it is decaying, part nascent. ...All things are literally better, lovelier, and more beloved for the imperfections which have been divinely appointed. (Ruskin 1892, 31–33 (caps in original))

These Christian sentiments about the spirituality of imperfection echo the Japanese concept of *Wabi-sabi*: the aesthetics of the imperfect and impermanent. Derived from Buddhist principles, this values the beauty of the broken and the flawed, of ageing, asymmetry and roughness. An example of this is the art form, *Kintsugi*, in which broken ceramics are lovingly repaired and the cracks decorated with gold, thus celebrating the history of the object and its use. The beauty of the cracks demonstrates that it is fragile and has become even more precious with this repair.

It goes without saying that a great deal of craft skill is involved in CGI animation. It is a frequently quoted statistic that it takes 10,000 hours of practice to become a skilled practitioner in any field (Frayling 2017, 15). Rather than it being an automatic process of randomly pushing a few buttons, in *The Language of New Media* Manovich points out the extensive manual labour and hand-touching involved in the digital production of moving images and concludes that digital cinema could be thought of as a form of painting in time (Manovich 2002, 304–8). However, with an orthodox and conventional use of software this skilled labour is hidden behind uniform, bland perfection. Can the means of production be de-mystified and revealed in CGI animation as in the explorations of artist filmmakers like Vicky Smith who are inspired by structuralist and materialist approaches to film (Cf. Smith 2015)?

There are a growing number of experimental CGI animators who reveal the labour and artifice behind CGI in a knowing exploration of

digital materiality, glitches, mistakes and the limits of the software in a manner that recalls Wabi-sabi and Ruskin's notion of the beauty of imperfection. *Animate OPEN: Parts & Labour* (2016), an online exhibition that aimed to "celebrate, subvert and confound our expectations of what animation is, bringing together different artistic approaches that connect through their exploration of the concept of animation as craft" (Animate Projects 2016), included examples of experimental CGI, that could be called 'ugly' animation . This term is taken from Nikita Diakur's short film *Ugly* (2017), which explores the fakeness of digital simulation, exploits glitches and misuses physics engines. Short films such as Wednesday Kim's *Alteration-de-la-voix* (2015), James Duesing's *Gray Elegy* (2015) and Rui Hu's *Metropolitan Triangle Garden* (2014) show broken CGI bodies, impossible architecture, and reveal the "lie" behind photo-real simulation.

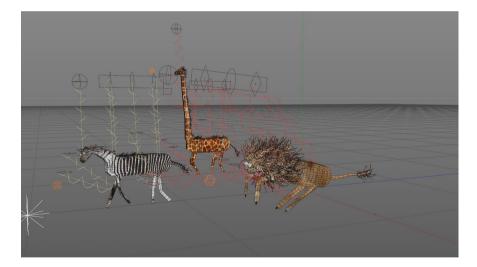


Fig. 2.5 Screen shot from the making of Ugly (Nikita Daikur, 2017)

Conclusion

Using handmade techniques in experimental animation can be seen as an attempt to return to an expression of the individual artist in the face of homogenised, bland, throw-away animation: a blow against consumerism and corporate capitalism. This chapter has contextualised these ideas within a historic lineage of craftivism and opposition to the loss of artisanal skilled labour resulting from the introduction of industrial production methods. The contemporary interest in craft could be interpreted as a form of nostalgia for the traditional skills of a bygone age before computer aided processes were introduced, underpinned by a demand for greater respect for the skilled labour of animation, for better conditions for animators, for an end to exploitative outsourcing. This kind of work makes the manual labour of the production process visible and draws attention to the laboriousness of the animation process.

However, rather than being considered oppositional and progressive, handcrafted animation can also be read as appealing to a populist and conservative agenda of 'the good old days'. In addition, there is a sense within handmade experimental animation that this manner of anticommercial production confers the status of art upon a practice that was previously dismissed as craft. However, this privileging of the handmade as somehow more artistic within experimental animation is predicated upon outmoded concepts. Relying upon a romantic conceptualisation of the lone artist working by hand, this is a relic of an earlier era when a view of the art object as unique, material expression of an individual consciousness was prevalent. The discourse of the singular art object privileges the exploration of analogue materiality since it is considered as unique and authentic, however there is much to be explored conceptually with digital processes and the virtual materials made by computers. "Ugly" CGI animation demonstrates that commercial software can be subverted to produce critically aware animation that interrogates digital materiality and does not fake its origins. Whereas the so-called handmade processes in animation all rely on digital imaging, non-linear digital video editing, and digital postproduction at some stage of their production and many animations that purport to be made by hand are not genuine explorations of materiality, but nostalgic simulations of analogue media created in TV Paint or Photoshop: the faked handmade; a pastiche of manual labour. Thus, working by hand alone is not a guarantor of value or activism. Crafting dissent can be done either manually or digitally.

Bibliography

- Animate Projects. 2016. 'Animate OPEN: Parts & Labour'. http://animateprojectsarchive.org/films/by_project/animate_open_ parts_labour/animate_open_parts_labour.
- Balsom, Erika. 2013. *Exhibiting Cinema in Contemporary Art*. Amsterdam: Amsterdam University Press.
- Benjamin, Walter. 1969. 'The Work of Art in the Age of Mechanical Reproduction'. In *Illuminations*, edited by Gerald Arendt, translated by Harry Zohn. New York: Schocken Books.
- Bishop, Claire. 2012. 'The Digital Divide'. Artforum, no. September: 434–42.
- Blair, Preston. 1994. *Cartoon Animation*. Laguna Hills, California: Walter Foster Publishing, Inc.
- Broadberry, Stephen, and Bishnupriya Gupta. 2009. 'Lancashire, India, and Shifting Competitive Advantage in Cotton Textiles, 1700–1850: The Neglected Role of Factor Prices'. *Economic History Review* 62 (2).
- Busch, Otto von. 2014. 'Crafting Resistance'. In *Craftivism: The Art of Craft* and Activism, edited by Betty Greer. Vancouver: Arsenal Pulp Press.
- Callahan, David. 1988. 'Cel Animation: Mass Production and Marginalization in the Animated Film Industry'. *Film History* 2 (3): 223–28.
- Etsy, Inc. 2018a. 'Code as Craft: About'. Code as Craft. https://codeascraft.com/about/.
- ———. 2018b. 'Shop for Anything from Creative People Everywhere'. Etsy. https://www.etsy.com.
- Foá, Maryclare, and Birgitta Hosea. 2019. 'Chapter 1. Communicating'. In *Performance Drawing: New Practices since the 1960s*, edited by Maryclare Foá, Jane Grisewood, Birgitta Hosea, and Carali McCall. London: I B Tauris.
- Frayling, Christopher. 2017. *On Craftsmanship: Towards a New Bauhaus*. London: Oberon Books Ltd.
- Greer, Betty. 2014. *Craftivism: The Art of Craft and Activism*. Vancouver: Arsenal Pulp Press.

- Hamilton, Inga. 2014. 'Daily Narratives And Enduring Images: The Love Encased By Craft'. In *Craftivism: The Art Of Craft And Activism*, edited by Betty Greer. Vancouver: Arsenal Pulp Press.
- Hobsbawm, Eric. 1999. *Industry and Empire: From 1750 to the Present Day*. Revised edition. London: Penguin Books.
- — . 2000. 'Introduction: Inventing Traditions'. In *The Invention of Tradition*, edited by Eric Hobsbawm and Terence Ranger. Cambridge; New York; Melbourne; Madrid: Cambridge University Press.
- Hosea, Birgitta. 2010. 'Drawing Animation'. *Animation: An Interdisciplinary Journal* 5 (3): 353–67.
- Husbands, Lilly. 2016. 'Craft's Critique: Artisanal Animation in the Digital Age'. Animate Projects. http://animateprojectsarchive.org/writing/essays/l_husbands_2.
- Johnson, Garth. 2008. 'Down the Tubes: In Search of Internet Craft'. In Handmade Nation: The Rise of DIY, Art, Craft, and Design, edited by Faith Levine and Cortney Heimerl. New York: Princeton Architectural Press.
- Levine, Faith, and Cortney Heimerl. 2008. *Handmade Nation: The Rise of DIY, Art, Craft, and Design*. New York: Princeton Architectural Press.
- Loader, Alison Reiko. 2014. 'Surviving The Animator's Survival Kit: "I'm Not Bad, I'm Just Drawn That Way."'. *Animationstudies 2.0* (blog). https://blog.animationstudies.org/?p=869.
- Maker Media. Inc. 2018. 'Make Magazine'. Make Magazine. https://makezine.com.
- Manovich, Lev. 2002. *The Language Of New Media*. Cambridge, Mass.; London: MIT Press.
- ———. 2011. 'Inside Photoshop'. Computational Culture: A Journal of Software Studies, no. 1. http://computationalculture.net/insidephotoshop/.

Marx, Karl, and Friedrich Engels. 1969. 'Manifesto of the Communist Party'. In *Marx/Engels Selected Works*, translated by Samuel Moore. Vol. Vol. One. Moscow: Progress Publishers. https://www.marxists.org/archive/marx/works/download/pdf/Manif esto.pdf.

- Mathis, Charles-François. 2016. 'Ruskin's Heirs: Art, Nature and Socialism'. *E-Rea* 13 (2). http://journals.openedition.org/erea/5106.
- Mihailova, Mihaela. 2013. 'The Mastery Machine: Digital Animation and Fantasies of Control'. *Animation: An Interdisciplinary Journal* 8 (2): 131–48.
- Naylor, Gillian. 1980. The Arts and Crafts Movement: A Study of Its Sources, Ideals and Influence on Design Theory. London: Studio Vista.
- Repair Cafe. 2018. 'About'. Repair Cafe. https://repaircafe.org/en/about/.
- Ruskin, John. 1892. *The Nature of Gothic: A Chapter of the Stones of Gothic.* Edited by William Morris. London: George Allen.
- Shoreditch Sisters Womens Institute. 2017. 'About Us'. Shoreditch Sisters Womens Institute. https://shoreditchsisterswi.com/about-us/.
- Smith, Vicky. 2015. 'The Animator's Body in Expanded Cinema'. *Animation: An Interdisciplinary Journal* 10 (3): 222–237.
- — . 2016. 'Noisy, Licking, Dribbling and Spitting'. Animate Projects. http://animateprojectsarchive.org/films/by_date/2016/noisy_licking _dribbling_and_spitting.
- Takahashi, Tess. 2005. 'Meticulously, Recklessly Worked Upon: Direct Animation, the Auratic and the Index'. In *The Sharpest Point: Animation at the End of Cinema*, edited by Chris Gehman and Steve Reinke. Toronto: YYZ Books.
- Thompson, E P. 1980. *The Making of the English Working Class*. London: Penguin Books.
- Warburton, Alan. 2016. 'Spectacle, Speculation, Spam'. In *Edges: An Animation Seminar*. Whitechapel Gallery: Edge of Frame. https://vimeo.com/194963450.
- Websdale, Neil. 2001. *Policing the Poor: From Slave Plantation to Public Housing*. Boston: Northeastern University Press.
- Williams, Richard. 2001. The Animator's Survival Kit: A Manual of Methods, Principles and Formulas for Classical, Computer, Games, Stop Motion and Internet Animators. London: Faber & Faber.

¹ For further reading on this topic, cf. Macdonald, Sean. 2017. *Animation in China: History, Aesthetics, Media*. Routledge, 2017; Daisy, Yan, Du. 2018. *Animated Encounters: Transnational Movements of Chinese Animation, 1940s-1970s*. University of Hawaii Press; Wu, Hang. 2018. 'Report on Animators' Roundtable Forum: Chinese Animation and (Post)Socialism'. Association for Chinese Animation Studies. http://acas.ust.hk/2018/01/30/reporton-animators-roundtable-forum-chinese-animation-andpostsocialism/