

Slapstick After Fordism: *WALL-E*, Automatism and Pixar's Fun Factory

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In his recent *The World Beyond Your Head*, Matthew Crawford (2015) argues for a reclaiming of the real against the solipsism of contemporary, technologically cocooned life. Opposing digitally induced distraction, he insists on confronting the contingencies of an obstinately material, non-human world, one that rudely insists beyond our representational schema and cognitive certainties. In this Crawford joins an increasingly vocal chorus of critics questioning the ongoing transformation of human subjectivity via digital mediation and online connectivity (see Turkle 2012 and Carr 2011). Yet to mount this critique Crawford turns to a surprising example: *Mickey Mouse Clubhouse*, the Disney Channel's first entirely computer animated television series, running from 2006 to the present.

Given the proclaimed philosophical stakes of his book, which draws on Heidegger's concept of "Being-in-the-World" and critiques Kantian *Aufklärung*, what peeks Crawford's interest in *Mickey Mouse Clubhouse*, aimed at teaching pre-schoolers rudimentary concepts, facts and vocabulary? Specifically, it is the contrast between *Clubhouse* and Mickey's first adventures in Disney shorts of the twenties and thirties. In the latter, "the most prominent source of hilarity is the capacity of material stuff to generate frustration," thus offering to its viewers "a rich phenomenology of what it is like to be an embodied agent in a world of artifacts and inexorable physical laws" (70). Crawford emphasizes the importance of a specifically slapstick comedy as a unique reflection of the contumacy offered up by objects, bodies and worlds. Crawford also points to the "real physical grace" of a cartoon character's equally funny avoidance of disaster, his example the consternated yet triumphant Donald Duck (254). Donald

appears, along with the usual cast of Disney animals, in *Mickey Mouse Clubhouse*, but for Crawford these characters inhabit a world stripped of contingency and thus comedy, Disney's former slapstick-infused "phenomenology" drained of all reality. He focuses on the show's emblematic figure of post-modern labor: Toodles, a flying, self-propelling and silent device shaped like Mickey's iconic head and functioning as a cross between iPad and remote control, the perfectly proportional circles of ears and face forming a touch-screen at once anthropomorphic and user-friendly. Summoned by its master and model—a genial if vexed Mickey Mouse—the genderless Toodles floats side by side as the former's digital doppelganger, his proportionally matched head and ears offering circles within circles, all colored in bright shades of yellow, red and blue. This mise-en-abyme of Mickey's extends to the similarly sunny surroundings, all of which are contained by a mouse-shaped house, the show's eponymous home base and point of narrative departure. Displaying on its screen four different "Mouseke-tools" for each episode, Toodles magically summons these items for the show's characters, allowing the latter to solve a corresponding set of four problems that structure each episode's pedagogical arc. Contrasting analog cartoon with Disney Channel, there is an implicit prescription underlying this critique: returning to slapstick's fraught yet rewarding comedy could offer a way of resisting digital distraction, bringing humans back to the artisanal craft and barter economy Crawford seeks as alternatives to capitalism's seamless realities.

In this essay, I will explore another instance of slapstick nostalgia, turning like Crawford to a digitally animated work released by the Walt Disney Corporation: Andrew Stanton's 2008 feature film, *WALL-E*. Yet in contrast to *Mickey Mouse Clubhouse*, *WALL-E* seems to fulfill Crawford's longing for a return to slapstick as a remedy for virtual disembodiment. In the dystopian future of Stanton's film, produced by Pixar, human beings have so removed

themselves from the world that that world itself has been destroyed, laid waste by endless trash. What remains merely phenomenological in Crawford's account becomes literal in *WALL-E*, as humans depart the planet for outer space, leaving their former home to be cleaned up by trash-compacting robots. Understood by its makers as well as many of its critics as a speculative satire of what Crawford calls, in the subtitle of his book, "the age of distraction," *WALL-E* provides a glimpse into the future of the Disney Channel's audience, especially if they are conditioned to expect a Toodles at every turn in their future lives at work or play. Stanton and his team infuse their eponymous protagonist—the last surviving trash-compactor—with the very human condition foregone by humans, who have turned into gigantic babies incapable of action or thought. *WALL-E* is an avatar of slapstick's uniquely materialist phenomenology, one which he offers to the film's infantilized humans as well as to the off-screen at risk: those watching the film in cinemas, on television or as one of a plethora of options on their own Toodles-esque screens.

Between distraction and disclosure, cognitive capitalism and manual craft, unfunny Toodles and hilarious *WALL-E* there lies, however, a displaced epoch and ideology: Fordism, the model of work geared around mass production, rationalized division of labor and conjoined use/output of industrial machines, ranging from assembly line to automobile to studio-made film. As a reaction formation to the industrialization of work and leisure in the first half of the twentieth century, slapstick is a rather curious genre to turn to as a means of bringing contemporary audiences to a pre-industrial world of artisanal skill, celebrated by Crawford and presaged in *WALL-E*'S happy ending of humans returning to farm the earth. In its explosive gags of chaotic machines and unruly bodies, self-sabotaging plots and uniquely filmic form, slapstick is best understood as part of a comic dialectic at once critical of and complicit in Fordism.

Although *WALL-E* summons slapstick it offers a twist: it humanizes a figure of perfected Fordism itself with its title character. Inspired by the examples of Chaplin, Keaton and Lloyd, *WALL-E* contrasts with both the film's de-evolved humans as well as Disney's other icon of automation, Toodles, acting as a satirical reflection of contemporary post-Fordist anxieties of what Jeremy Rifkin has called the "end of work" (1995; see also Carr 2014 and Ford 2015).

Yet in reaching towards slapstick, *WALL-E* reveals a post-Fordist nostalgia for the divisions implicit to Fordism. These were paradoxically revealed by the tramps, deadpans and creatures at the center of shorts and features by Keystone, Roach, Chaplin, Arbuckle, Keaton, Lloyd not to mention numerous cartoon shorts by Disney, the Fleischers and Warner Brothers, who carried on the comic tradition into the sound era, these cartoons acting, in Pascal Bonitzer's words, as a "substitute for lost slapstick" (quoted in Zizek 1992: 1). If Crawford is right to detect in slapstick a means of revealing the frustrating yet transformative stuff of the world, such disclosure can only be understood against the Fordist background central to the genre's formation. Yet this post-Fordist detection has as its own background a sense of work's growing transformation into the immaterial, cognitive and affective modes Crawford elsewhere locates in contemporary capitalism's management structures, self-help psychologies and corporate exempla in Silicon Valley (72-73), of which Pixar is representative. Slapstick would offer the resources to bring work back to bodies and things, but the crucial mediator of Fordism would have to vanish, slapstick's dialectic disavowed for a naïve celebration of pre-industrialist phenomenology deprived of the very motor driving its characters' comic negotiations with self and world. Such pre-industrialism is only visibly desirable against the mechanically inflicted loss initiated by Fordism, a stark division between factory time and leisure time, machine and human that slapstick ceaselessly short-circuited. With Fordism's own increasing obsolescence this very

division is mourned for, but crucial agents of factory and machine are forgotten for what Crawford has elsewhere called a “soulcraft” at once artisanal and affective, a non-synchronous merging of the pre-industrial and the post-Fordist articulated through a slapstick shorn of its material basis and historical reality (Crawford 2010).

In what follows, I will focus on *WALL-E*'s revitalization of slapstick within the context of recent debates about the eclipse of Fordism, the future of automated labor and the transformation of working human bodies. I will begin by locating the film's manifold citations of slapstick against the historical and formal dialectic between the genre and Fordism. I will then connect this dialectic to the question of cinematic realism and its various indices and automatisms in *WALL-E*, paying particular attention to the film's finale. Finally, I will turn to the film's conditions and means of production, contextualizing *WALL-E*'S turn to slapstick against the post-Fordist cinema of which Pixar is vanguard. If we are to understand how work on screen and off changes in an age of digital distraction, Pixar—in its products, production and philosophy of labor—offers the best starting point, representing a manifold turn from Hollywood's film factory to Silicon Valley, especially when this turn is, as in the case of *WALL-E*, programmatically disavowed.

Automation and Comedy

Just as it is a mistake to recall slapstick free of the industrialism that provided much of its motivation, so too should one avoid understanding the genre's relationship to industrialism as a one-way street, a simple subversion of Fordist rationalization and Taylorist efficiency evoked by the iconic example of Charlie Chaplin's assembly line consumption in *Modern Times* (Chaplin, 1936). Beyond this familiar image, however, is a range of links between slapstick and Fordism less obviously oppositional. Whether it be the comic performer's neurasthenic or grotesque

bodily excesses or the fraught yet often productive link between gag and plot, slapstick has been understood as a genre less immediately opposed to rationalization and more in a playful, dialectical tension (King 2009; Gunning 1994; Krämer 1989). Such contradiction, often unresolved, can be found in slapstick's potential receptions among mass, global audiences, where its transgression might satirize Fordism as much as reinforce it. Indeed, in Adorno and Horkheimer's *The Dialectic of Enlightenment* it is none other than Crawford's example of Donald Duck who transforms the nonsense of slapstick into sado-masochistic incitement for audiences to enjoy, in leisure time, the suffering they endure in factories (2002: 110). Perhaps the most important element of slapstick's relation with Fordism lay in what Walter Benjamin called "the dialectical structure of film," whereby "the assembly line...is in a sense represented by the filmstrip in the process of consumption" (2008: 340). According to Benjamin, figures like the Tramp or Mickey Mouse satirized Fordism through the application of this "structure" to their jittery, divisible bodies. We might say that slapstick would apply what Lee Grieveson has called "the Fordism of filmic time and space" to bodies, things and the world more generally, suggesting at once an extension of rationalization into the realm of consumption as well as Fordism's possible or simultaneous reflection, sublimation, or satire (2012: 32).

Animation is central to the dynamic between slapstick and Fordism as I have sketched it. Aside from the important links between slapstick and both popular and avant-garde animations in the twenties and thirties, American comic cartoons have been understood as extending slapstick's humor as well as the negotiation of cinema's "dialectical structure." This understanding stretches from canonical reflections by Benjamin (2008: 338-339), Kracauer (2000) and Eisenstein (1988) to scholarship by Esther Leslie (2004), Miriam Hansen (2011: 163-182), Donald Crafton (2012), Scott Bukatman (2012: 106-134), Paul Wells (2011), Nic

Sammond (2015: 87-134) and many others. Recalling and transforming this legacy, Pixar has shown a similarly complex engagement with the interrelations between anarchic comedy, animation and labor both on screen and off (see Halberstam 2011: 27-52 and Stacey and Suchman 2012). Indeed, many of its feature films in the nineties and aughts focus their narratives around work, while showing a related interest in nostalgia for antiquated, anachronistic and analog media genres and forms. Although it fits within this broader trajectory, *WALL-E* is constructed in the specific terms of slapstick and its uniquely filmic refraction of Fordism.

WALL-E is divided, like nearly every Pixar film, into a neat three-act structure. In a first and largely dialogue-free act, WALL-E is introduced as the last robot on earth, left by human beings to clear out a flood of trash produced by a consumerist apocalypse, governments having been replaced by the “global CEO” of a Walmart-like corporation, Buy N Large (BnL). Left to his own devices, WALL-E performs this job for seven hundred years, developing his own modest personality through an interest in humanity’s past, represented by ancient curios he collects during his working day and enjoys after hours in a makeshift home. Having learned the gestures of courtship by re-watching a VHS copy of the film, *Hello Dolly* (Kelly, 1969), he longs above all to love with this wish given reality through the arrival of EVE, or, Extraterrestrial Vegetation Evaluator, a sleek, feminine robot, who arrives on earth seeking signs of life. A second act begins after EVE discovers that WALL-E has found a small plant, which he has deposited in a boot and which EVE collects, her “directive” fulfilled so as to initiate a pre-programmed sequence of events, which WALL-E will, in turn, both aid and disrupt. A spaceship arrives to take EVE and a love-sick WALL-E back to the Axiom, a fully automated deep space luxury liner where humans have gone on a pleasure cruise from history. Humans have forgotten not only the earth, but their bodies as well as the immediate world around them, all of which are

replaced by a full service “economy” of ubiquitous and ever-same videos, games, fashions and foods created by BnL and supplied by pliant robots. After discovering a conspiracy between BnL’s long dead CEO and the Axiom’s auto-pilot, Auto, to keep humans from ever returning to earth—assumed beyond repair—WALL-E and EVE rescue their vegetative evidence of terrestrial life, leading the Axiom, through both narrative sequence and their own affectionate example, back to earth and the humans back to love, work and their own humanity.

Andrew Stanton has admitted a range of slapstick influences on not only its title character—an acronym for Waste Allocation Load Lifter Earth class—but on the film’s entire look and feel as what he has called, on the film’s DVD commentary track, a “pantomime” film. Especially interested in how to tell the story of characters whose spoken vocabulary is programmatically limited, he and his collaborators watched numerous Chaplin, Lloyd and Keaton films, interested in both comic gestures and gags as well as how to guide the audience’s both understanding of plot and empathy for its robots-in-love with minimal verbal exposition. *Modern Times* was an especially important resource, being at once a deliberately anachronistic sound film featuring a speechless central couple as well as, in Stanton’s words, “an indirect comment on one possibility of the automation of humanity and losing your soul” (Sragow 2008). The crucial difference between Stanton’s film and Chaplin’s *Modern Times*, or between Keaton’s deadpan and the Keaton-influenced melancholy of WALL-E’s face, is that Pixar’s film inverts slapstick’s underlying humanism by offering a robotic protagonist more human than humans themselves.

If Chaplin, Keaton and Lloyd’s films mechanically encrust bodies, things and spaces while still finding implicitly human resolution through heterosexual union, WALL-E would seem to both reverse and extend this logic. Henri Bergson’s 1900 text, *Laughter*, a necessary if necessarily contestable starting point for the slapstick scholar, insisted on comedy’s interweaving

of the human and the machine. Bergson argues as a first premise that “the comic does not exist outside the pale of what is strictly HUMAN” but also claims that this same comedy appears only through the laughable appearance of a mechanical inhumanity: “Our starting-point is... ‘something mechanical encrusted upon the living.’ Where did the comic come from in this case? It came from the fact that the living body became rigid, like a machine” (1911: 3 and 49). *WALL-E* would seem at once to challenge and confirm Bergson’s theory, since it extends humanity to a robot, one interested, like the philosopher before him, in the relationship between matter and memory. Bergson’s dichotomous terms are here retained but the movement between them has reversed: what is funny about *WALL-E* is not his mechanism, but rather his vitality, an animation of the inanimate explicitly modeled on the Pixar ur-form and corporate icon of lamp Luxo Jr., a modeling we have already seen in the case of Toodles and Mickey Mouse.

This intersection of liveliness and encrustation has as its basis industrial mechanism and corporeal maladjustment, the robot’s vitality expressing itself against a machine-body based on a Fordist model of labor, the epitome of mechanical regimentation and thus, for the comedian, asking for interruption and exaggeration. Although his legs would seem to recall the treads of a tank, they also echo the perpetual motion of the assembly line and its conveyor belt. *WALL-E* suggests a version of the assembly line gone mobile, an itinerant factory whose product is reverse engineered trash, once shiny commodities turned into decaying waste turned into products of clearance aggregating into the common slapstick setting of skyscraper. As this image suggests, *WALL-E* is funny, in part, because his trash compacting is made to resemble not work, but the at once literal and biological performance of “taking a dump,” his intense concentration adding to this comedy of constipated labor [FIGURE 2]. Rather than becoming the de-humanized cog fed down the assembly line, *WALL-E* is an assembly line that self-humanizes.

With his combination of automated directive and evolved personality WALL-E suggests a synthesis of Chaplin's earthy Tramp, Keaton's robotic deadpan and Lloyd's sentimental go-getter. Yet he is also a historical progression of slapstick's mechanical encrustations, one rooted in the time and energy saving philosophies and devices of Fordism and Taylorism, of which included the automated eye of the cinema itself.

As a highly empathetic figure of isolation, repetitive work and human-aping desire, WALL-E recalls a statement by Jacques Attali: "Machines are the new proletariat. The working class is being given its walking papers. Nomadic man is taught that if he is to find work more easily, he must not count too much on society to keep him in shape. He must regard himself as his own sculptor" (1991: 101). Attali's distinction between the proletarianization of automated machines and the creative yet precarious work of "nomadic man" anticipates discussions of contemporary labor by Maurizio Lazzarato (2006), Luc Boltanski and Eve Chiapello (2007), Michael Hardt and Antonio Negri (2001), Franco "Bifo" Berardi (2009) and others. The repeated gestures, comic spasms and de-humanization associated with Fordism would be transferred to machines while human beings would either develop into a new leisure class of 1% idlers or be otherwise left to sculpt their own lives into 24/7 jobs, which employ them anywhere and everywhere without the stable ground provided by a welfare state or traditional modes of identification within nation, class or ethnicity. All these scholars insist that immaterial labour is necessarily creative and aesthetic, more cognitive or affective than rotely physical and thus a kind of work lacking Fordism's firm distinctions of time, space and identity. Such distinctions were given their bluntest statement in Henry Ford's *My Life and Work*: "When we are at work we ought to be at work. When we are at play we ought to be at play. There is no use trying to

mix the two. The sole object ought to be to get the work done and to get paid for it. When the work is done, then the play can come, but not before” (1923: 92).

In endowing WALL-E with sentience, curiosity and desire, Stanton and his Pixar collaborators would seem to be mourning the loss of Fordism itself and with it the dialectical interplay slapstick was thought to articulate against and within the mechanizations celebrated by industrialists like Ford and feared by philosophers like Bergson. Yet if the Tramp or the many other lumpenproletarian figures dominating slapstick harkened back to pre-industrial forms of idleness or eccentric tinkering, WALL-E’s relationship to his work, his constant halting of the assembly line dissimulates the specific creativity now demanded of workforces. Like the Japanese model of lean production thought to initiate post-Fordism (see Hardt 1999: 93), WALL-E’s work is based on stopping and starting as he goes, but through the very act of stopping the nature and end of what he does changes: clearing out waste is done only for the sake of finding items that whet his curiosity or desire, all given further creative motivation by his chosen soundtrack, *Hello Dolly*’s “Put on Your Sunday Clothes.” Although WALL-E would seem to live the structured time of the factory worker—we get a sense of a day’s labor when he compacts and stacks trash all day and then returns to his home for re-charging leisure—his tedious work is barely shown. The creativity and ingenuity of the slapstick protagonist, suffused with its own nostalgia for life and work prior to the modern, metropolitan or industrial, are here seen under the sign of the post-industrial, mechanical tinkering and urban *flaneurie* retroactively projected as antecedents of post-Fordist sculpting. WALL-E’s real work is the curiosity he brings as a rag picker of human histories and of historicity itself, the possibility that things be otherwise, which human beings have forgotten and which robots either learn, as in the case of EVE, or refuse, as in the case of the tellingly named Auto.

While Auto is explicitly connected to *2001: A Space Odyssey*'s HAL, his iconography as red-eyed ship's wheel was inspired by another inter-text: Rudyard Kipling's 1897 novel, *Captains Courageous*. Kipling's novel, contemporary to the 1890s the film elsewhere recalls via *Hello Dolly*, concerns the transformation of a spoiled son of an industrial magnate after being forced to work on a fishing boat. The Axiom's ship's wheel is a strange combination of old and new, the spaceship's sole concession to manual labor yet, in name, function and cinematic reference, the very essence of automation. More importantly, Kipling's novel suggests a crucial mythological antecedent for WALL-E: the proletarian is celebrated not for their work but rather for their life force, as a kind of *elan vital* upon which the wealthy leach. As Slavoj Žižek argues of Kipling's story, "...beneath this sympathy for the poor, there is another narrative, the profoundly reactionary myth... of a young rich kid in crisis whose vitality is restored by a brief intimate contact with the full-blooded life of the poor." (2008: 58). On the one hand, WALL-E is a proletarian in the nineteenth century sense that Attali implies, with a division between the time and space of the factory which has, in the film, become the world and the leisure space of a home that is part bunker and part Noah's ark. What humans require from him is precisely the comic vitality produced by a self-evolved desire against regimentation. As opposed to Bergson's diametrical opposition between vitality and mechanism, the history-making power of WALL-E's desire for life is itself desired only because of its resistance to the automations of his own body as well as those on board the Axiom. This setting, along with WALL-E's romancing EVE, cannot help but recall Žižek's own example of this "myth": James Cameron's *Titanic* (1997).

The appeal of this image of proletarian vitality bursting from the encrustations of the factory is, however, framed by the film's implicitly post-Fordist referent. WALL-E is less anarchic tramp or Dadaist mechanic than he is a creative laborer in the mode of the precarious,

self-sculpting and flexible “knowledge-worker.” He is an ambiguous wish-image, a nostalgic reserve of proletarian slapstick energy fighting against Fordism’s firm divisions of time and space yet rather than recalling pre-industrial idleness, instead implies a contemporary landscape in which life and work know no boundary. What goes missing here is work itself, its tedium, encrustation and above all automation and with this goes the concept of class antagonism implied by the becoming-proletarian of robots or the becoming-precarious of vast swaths of technologically unemployed humanity, “handed their walking papers.” This is literally the case since the vital humanity implied by WALL-E’s nominating acronym is based on a disavowal of the “class” concluding his designation. And there is another meaning of “class” disavowed: WALL-E’s seriality, the fact that he, like EVE or any of the charmingly idiosyncratic robots in the film, is a mass produced machine. Each robot must remain an individual personality, never confronting the Fordist fact of origin nor the uncanny possibility of being more than one. Like the “class” taken away so as to give WALL-E both name and gender, here class is missing in the sense not simply of seriality, but in the sense of antagonism, a split in the basic organization of society disavowed precisely in images of the proletarian as life-giving succor. Like the wise, rough and tumble fishermen in Kipling’s novel, WALL-E’s robot is proletarian not through the work he does, but rather in the vitality he offers up to a leisure class become species-being. That vitality is at once anachronistically rooted in slapstick’s playful, creative relationship with work and a refraction of the immaterial modes of production animating *WALL-E* itself.

From Automation to Automatism

Just as *WALL-E* re-vivifies slapstick through a post-Fordist projection so too does it celebrate an increasingly fading phenomenology of filmic presence through digital re-animation. The two

nostalgias, one for slapstick's comedy, the other for its analog base, serve the same ends, an interest in the past likewise seen in Matthew Crawford's evocation of early Disney as bringing viewers in contact with the world beyond their heads. The difference, however, is that *WALL-E*'s imagery might have more in common with *Mickey Mouse Clubhouse* than with any of the industrially organized, hand-drawn cel animation of Disney films in the twenties, thirties and forties. Vivian Sobchack (2009) and Eric Herhuth (2014) have written on the film's complex negotiation between its digital animation and the various references to the analog contained within its narrative, characters and visual composition. First and foremost, there is the plot point of the plant in the shoe, at once evidence of a habitable planet and an invitation to walk upon earth once more. Among other associations, this image of the boot evokes the canonical example of the indexical in Peircian semiotics often applied to analog photography, that of the footprint. An explicit moment of walking as re-evolution—in which the Axiom's captain, McCrea, rises to his feet to fight Auto and set course back for earth—points to another set of cinematic resources: as McCrea takes his first step the film's soundtrack cues “Also sprach Zarathustra,” only one reference of many to canonical science fiction cinema. Such homage is not bound to the film's narrative, but is also, as Herhuth argues, matched by a range of techniques used to simulate the gritty, grainy realism of analog cinematography in genre cinemas ranging from science fiction to the musical to aforementioned slapstick. *WALL-E*'s most important endorsement of cinematic nostalgia, however, involves the film's bringing diegetic and non-diegetic spectators alike back in touch with the world around them, giving them a view of the world much in the manner mourned for by Crawford in his appeal to Donald Duck.

The claim of a special relationship between slapstick as genre and a certain cinematic realism long precedes Crawford's recent appeal to the genre. In fact, this relationship is

foundational to realist film theory. The key figures in that theory's formation—Siegfried Kracauer (2012: 214-215), Andre Bazin (2009: 83) and Stanley Cavell (1978: 249-250)—all intuited an especial importance to slapstick in affording viewers a kind of presence to the world in all its historical, material recalcitrance. As he inverts the Bergsonian definition of the comic, so too does WALL-E both confirm and subvert this realist appeal to slapstick. Rather than acting only as witness of the world's materiality, will or distance, WALL-E also acts as indexical real, especially on board the Axiom, when his circulation—leaving filthy tread-prints everywhere he goes—disrupts the automated economy of the ship's robots as well as the visual economy of humans glued to their screens. The opening words of *Hello Dolly's* "Put on Your Sunday Clothes,"—"Out there is a world beyond Yonkers"—a musical citation with which *WALL-E* begins, thus serves as an incitement not to depart the planet, which the accompanying images of outer space might otherwise suggest, but of looking beyond one's head or screen. Slapstick's encrustations would be the best means of provoking this look, distracting distraction from its automated directive, pointing gaze and body back to the earth's essential dimensions of materiality, contingency and finitude. As if taking the ontology of film developed by Cavell in *The World Viewed* literally, *WALL-E* removes human beings from the world through automatism so as to give them the renewed glimpse of it afforded by this absence, one made present by the obtrusive index of earth, WALL-E.

Although automatism is a term that Cavell attributes to media in general—as both material constraint and formal convention—its use was provoked by the specifically automatic nature of photography, which reproduce images of the world without any human-motivated action. Cavell's language emphasizes this process in the Fordist terms of production, writing of film's medium having a "manufacturing mechanism at its basis" (1979: 105). More than

Kracauer and Bazin, Cavell's realist approach to slapstick departs from the topic of labor, referencing Heidegger's concept of the "work-world" as the disrupted basis for slapstick's "perception or apprehension of the things of our world." Slapstick would thus not only bring people back to the world, but also back to an awareness of work and the automatic, invisible and material manufacturing often hiding that world in all its disruptive difference.

In *WALL-E*'s case, however, slapstick's realism points not to manufacture but rather to the pre-industrial realms of agrarian and artisanal labor, a glimpse of future utopia the film alludes to in its conclusion. In the film's climax, a broken down WALL-E's personality is threatened by a replacement circuit-board that re-boots him: in a moment of near tragedy, one that echoes the end of *City Lights* (Chaplin, 1931), EVE watches him return to the automated behavior of an anonymous, mass produced trash compactor, perhaps the film's only genuine image of Fordism's mindless dehumanization. But this tragic moment in which industrial work is seen for what it is—neither as slapstick disruption nor as the creative work of nostalgia—EVE embraces WALL-E, provoking a spark between the two robots that miraculously recalls the latter's personality to life. Seriality and finitude are alluded to, but quickly disavowed in favor of individual personality that might go on forever. A final shot sweeps from the robots' embrace to an urban wasteland showing the first signs of life in centuries, with Captain McCrea explaining the principles of farming to now-walking humans.

WALL-E gives some image of this new future in a credit sequence animated by Jim Capobianco and set to the song "Down to Earth," written and performed by Peter Gabriel. This sequence details a future history of a second humanity through first humanity's ages of art. Moving from cave paintings to hieroglyphics to mosaic, the sequence animates these still image genres, giving motion to figure and landscape according to the intertwined histories of art and

technology, re-written as a harmonious relationship through the mutually supportive work of humans and robots alike: cave paintings detail the re-discovery of fire through WALL-E's laser, hieroglyphics the digging of wells by EVE, Greek urns the automated planting of seeds and so on. Finally, Da Vinci-esque sketches are painted over by a robot in the watercolors of Monet's impressionism, which shifts from an urban scene to sail boats on a river and finally concludes with two further impressionist pastiches: pointillist children running and fishing with the Axiom looming behind them (after Seurat) and, finally, an image of a bird surrounded by flowers giving way to WALL-E and EVE beneath a tree, looking up at its branches (after Van Gogh). As Gabriel repeats the song's chorus ("We're coming down to the ground"...) the frame shifts downward, showing the tree's roots gathering around a central origin: the boot that brought human beings back to earth.

This credit sequence is meant to confirm a happy ending for a re-booted humanity, painted in the familiar colors and familiar story of humanity's first history, culminating in an impressionist utopia. As with the film's appeals to slapstick, there is an ambiguity here since this newly reconstituted future can only be pictured in the terms of the past, as if it were impossible to re-imagine in either aesthetic or historical terms something beyond the already-given, an implicit automation that would sentence history to farcical repetition. Yet this repetition does contain its differences: still images are animated, robots join human beings in both work and play and there is the final destination of pastoral paradise afforded by impressionism. What seems most utopian about these final images is not simply the communion of technology and nature, but rather that we do not see what comes after impressionism in the conjoined terms of aesthetic form and historical content. These include not merely the various modernisms that followed impressionism (the fauvist, futurist, cubist, expressionist, Dadaist, constructivist, surrealist etc.),

but the intrinsic relationship such movements had to the traumas and technologies of the coming century. Of the latter we would have to include above all the cinema or, anticipating it, the photography fundamental to impressionism's own pre-history. Of the former we would not only include what Gerry Canavan, writing of this sequence, has called "the many disasters of the twentieth century," but the tragedy of Fordism in particular, implicitly sublated by the cooperation of robots and humans, working together for a more harmonious relationship to the earth (2014). Despite this final utopia, these "disasters" are still visible, even in their absence. Staining this final image WALL-E and EVE are themselves blots of both the Fordist and post-Fordist regimes of labor and however idyllic their leisure time, they are like *WALL-E* itself, largely constituted by the epochs following impressionism's seeming last glimpse of pastoral beauty and natural idleness prior to the automation of life and leisure otherwise known as cinema. WALL-E is not simply a conjoined figure of both film and factory, but also anticipates the animating relationship between this industrial art and modernism. His body is a kind of cubist-constructivist assemblage and in this he maintains a further aspect of the slapstick legacy: the importance of figures like Chaplin, Keaton and Felix the Cat for a range of inter-war avant-gardes. No longer lost in their heads or automated by directives and deceptions, robots and humans re-connect to their world, tend to its flourishing and thus to their own. Rather than ventriloquizing by technique or genre the cinematic as it had in the preceding ninety minutes of plot and image, here pre-photographic automatisms are summoned, all depending on the exercise of human hand rather than the manufacturing basis of the camera.

Having begun with an evocation of urban, standardized leisure on the cusp of the twentieth century in the form (and title) of "Put On Your Sunday Clothes," the film finds, in its coda, an "out there" no longer dependent on a cinematic let alone specifically slapstick realism.

Cinema's ambiguous dependence on Fordism, at once reliant on the alienating logic of automated manufacture while confronting this alienation in genres like slapstick, would be done with, having served its purpose on board the Axiom. Returning to earth, the film's nostalgia no longer needs the cinematic as a means of comically reconciling with body, mind, or world, instead turning to a pre-Fordist world at once anticipating the twentieth century while disavowing the possibility of its apocalyptic repetition.

Pixar's "Fun Factory"

What of the digital, those strings pulling *WALL-E* according to a principle of simulation rather than tying it to the physical world through photographic index? Does the film's climactic appeals to personality, perpetuity and union of pre-photographic art and pre-industrial labor contradict its own digital construction, far more removed from reality than cinema's attempts to turn alienating, autonomist photographic footprint into aesthetic utopia? I would suggest rather that the film's appeal to the painterly claims proximity between the digital and the artisanal, both made without the use of photographic automatism. The film's final sequence seems to acknowledge Lev Manovich's oft-cited assimilation of cinema within a broader history of drawn, animated imagery, one recently echoed by Wolfgang Ernst: "In the present age, the possibilities of digital manipulation of electronic photography seems to be returning images to a prephotographic quality of painting: that characterized by the painterly brushstroke" (2013: 47). It is a robot that wields this magical, era-spanning stroke, transforming Renaissance sketch into impressionist paradise, human civilization into bucolic nature, as if to forego its own status as Fordist assemblage [FIGURE 3].

This echo of the painterly within the digital is explicitly suggested after Capobianco's sequence ends, as the ground beneath WALL-E and EVE's tree gives way to root, boot and finally the black background of credits: as the list scrolls up, 8-bit versions of the film's characters and figures appear alongside the text, zipping up and down in various comic antics. Leaping from impressionism to charmingly anachronistic digital figures, the film skips over an entire century of art as if to preach to its audiences Manovich's dictum: "Manual construction and animation of images gave birth to cinema and slipped into the margins...only to re-appear as the foundation of digital cinema." (2001: 302).

Foremost among the many problems with this statement is the recurrence not simply of the drawn or painterly, but of "manual construction," a return to individual handicraft and artisanal labor *WALL-E*'s finale is far more explicit about than Manovich. Yet this return happens in the context of a credit sequence that gives direct lie to this return, either in terms of individual rather than collective work, or in terms of "manual construction" rather than digital compositing. In contrast to painting's signature, Pixar's digital animation is an *art of endless credit*, of, first, a uniquely post-Fordist division of labor involving numerous departments (Camera & Staging, Animation, Characters, Sets, Lighting, Effects, Rendering & Optimization etc.) organized beneath a corporate umbrella as well as, second, an essentially immaterial labor having little in common with either manual brushstroke or manufactured cinematography. This is the most obvious of the film's many disavowals of labor and like the disavowal central to Freudian fetishism, the credit sequence, a historiographic parallax of pre- and post-industrial artistic labor leaping from Van Gogh's peasant boot to Nintendo, tempts its audience to avoid looking directly at the endless list of names and departments that worked for years to achieve its simulated analog effects.

To conclude this analysis of Pixar's film, I would like to turn to Pixar itself, the film's corporate author and thus to what is occluded by the distractions offered up during the film's final acknowledgment of the labor animating its production. Neither artisanal nor industrial, signed nor manufactured, the labor of those endlessly listed during *WALL-E*'s credits clarifies the film's recourse to slapstick's dialectics as well as the credits' *Aufhebung*, which would imply Pixar's digital nostalgia as a return to the organic and individual. WALL-E and EVE would offer a paradisaal synthesis of industrial, digital and artisanal regimes of art and work that Pixar would claim, in its corporate philosophy, campus location and relationship to parent company, Disney, to herald.

Leon Gurevitch has emphasized *WALL-E*'s complex appeals to slapstick, suggesting an apt re-title: *Postmodern Times* (2015). Gurevitch argues that the film's critique of screen-distracted humans acknowledges a larger transformation of spectatorship underlying the reception of all Pixar films: "a move beyond a logic of Fordist production in which image and industrial objects have literally become interoperable" (13). For their part, Herhuth and Sobchack have turned to psychoanalytic concepts to account for WALL-E's allegory of intersecting analog and digital image-regimes. Herhuth discusses the hetero-normative and "liberal desire" between WALL-E and EVE (56-61); Sobchack characterizes the comic trash compactor as transitional object, a comfort-image allaying the anxiety-inducing losses of both the filmic and the industrial (385). Sobchack goes on to suggest that one of the anxieties allayed by WALL-E is the "invisibility and effortlessness" of "electronic technologies." She herself nostalgically longs for the jerky movement of anachronistic, amateur, or avant-garde animations that "visibly labor." Implicitly analog, such visibly labored images would contrast with the seamless digital sheen of *WALL-E* (390). What seems invisible here is precisely the immaterial labor saturating *WALL-E*'s

production and driving its own nostalgic embrace of slapstick-infused idleness free of the image of industry. WALL-E would be a transitional object not merely between analog and digital, human and machine, but between the industrial model of filmmaking and the creative labor of Silicon Valley. If Hollywood was, in Hollis Frampton's words, "the Detroit of the image," Pixar is the paragon of a Silicon Valley of the image, the most visible site of a digital transformation of the moving image into animation coupled with a necessary transformation of the labor motivating this animation and authoring the forms and stories by which its work is reflected or repressed (2009: 178).

Here too slapstick is an essential reference point. In *The Fun Factory: The Keystone Film Company and the Emergence of Mass Culture*, Rob King argues that the tension between work and play on display in Mack Sennett's Keystone films was also crucial to the image of work that supposedly went into these films. Describing contemporary press coverage, he writes, "Keystone's mode of production was redefined in terms of its product: the making of slapstick was itself a kind of comedy..." (36). Fashioning its identity as corporate author, companies like Keystone extended the interplay of slapstick and Fordism, of "fun" and "factory," to its off-screen base so as to shape audience's own relationship to its products, as "a zany counterweight" (34) to both alienating work as well as Sennett's rivals. Sennett's "fun factory" would later find its inverted image in studios like Disney, where Fordism was acknowledged in terms of both the studio's production practices and in its animated products, which featured utopian images of characters happily working on the assembly line more often than they did Bergsonian battles in the manner of *Modern Times* or Rene Clair's *À Nous la Liberté* (1931) (see Sammond 2005: 27-28).

Although Disney purchased Pixar in 2006, the tail seems to be wagging the dog, at least in terms of bringing the former's corporate practice in line with the latter's profitable reliance on post-Fordist principles. In a 2011 article tellingly entitled "The Fun Factory: Life at Pixar," *The New Yorker's* Anthony Lane describes the company's northern Californian campus as a utopia, filled with amenities— free breakfast cereal, festive cubicles, secret tiki lounges—all too common among Silicon Valley's most successful firms. In the words of one Pixar employee quoted by Lane, all this "helps them to do their job and get away from their job." Lane implies, like those reporters who visited the set of Sennett's Keystone studio, a relationship between the way Pixar functions as studio and the films it produces: "The key to Pixar... is that what it seeks to enact, as corporate policy, and what it strives to dramatize, in its art, spring from a common purpose, and a single clarion call: You've got a friend in me." From Keystone's "fun factory" to Pixar's, all that is missing is the factory itself and the subtitle of Lane's essay is revealing: it does not emphasize working at Pixar, but rather living, no firm separation between labor and life, corporation and friend, or doing one's job and getting away from that job.

Providing a corporate manifesto for this "common purpose," Pixar's founder, Ed Catmull, has co-written *Creativity Inc.* (2014), selling to other managers Pixar's vision of how to work creatively. A reversal of nearly every premise offered in the founding text of the management guru genre, Ford's *My Life and Work*, Catmull locates Pixar's corporate philosophy of work in the inspiration of the Japanese lean production, which would pride creativity over efficiency and influence firms like Apple and Hewlett Packard. Beyond its location, Pixar's history as a corporation and film studio is embedded in a wave of post-Fordist theory and practice, this not only through the influence of its one-time owner, Steve Jobs, but in the explicit contrast between its model and that of Disney, which had fired John Lasseter for his interest in

digital animation and, in an ironic twist, purchased Pixar and installed Lasseter and Catmull as heads of Disney Animation in 2006. *Creativity Inc.* offers up all the watchwords of post-Fordism: beyond the title's evocation of creative rather than regimented labor, there is insistence on the random and stochastic, on confronting and sometimes celebrating failure and on the centrality of affect as the glue binding management to workers and workers to the object of their work, films which themselves operate as highly affective relays between Pixar's brand and its consumers.

As a product of Pixar's fun factory, *WALL-E* offers, as I have suggested, its own image of creative work, seen in nostalgic light of slapstick's idle refusals and transformations. What Herhuth describes as the liberal, heterosexual desire between WALL-E and EVE is also a neo-liberal, hetero-corporate desire reconciling management philosophies and their corresponding epochs, from out of times Disney to new media Pixar. Yet consistent with the film's nostalgia, the new is on the side of anachronism, WALL-E's broken down assembly line overwhelming through love the all-consuming "directive" of EVE, modeled on Apple's sleekly designed, minimalist consumer electronics devices. This is a pairing of old and new central to the Pixar aesthetic, perhaps most visible in the relationship between Buzz Lightyear and Woody the Cowboy in the *Toy Story* franchise. WALL-E would represent his corporate author as automation's creative continuity from the industrial to the post-industrial, a factory-personality whose citation of the past heralds the future, a move anticipated by IBM's re-animation of Chaplin's Tramp in the early eighties to sell its first personal computer. Like WALL-E, Pixar would be the loving guardian of the past, of slapstick, cinema and historical contingency, while Disney, cold, heartless and resistant to change, seems set on auto-pilot. Despite this seeming separation, Catmull and Lasseter have agreed to the phasing out of 2D cel animation at Disney,

while many of the latter's digitally animated films increasingly reflect Pixar's interest in nostalgic media redemptions, painted in digital colors. Its merger with Disney entailed a merchandise deal with Sam's Club, one of the inspirations for *WALL-E*'s BnL, and owned by a corporation, Walmart, well-known for refusing its employees the right to form a union, an industrial model of labor relations Catmull likewise deems anachronistic and inflexible (see Price 2009: 261-262). This seems all too fitting since the model of "just-in-time" production developed by Japanese corporations like Toyota was inspired by "America's giant supermarkets," progenitors of fictional BnL (Rifkin: 99). The Disney merger also guaranteed, as Catmull admits, more pressure on the company to make sequels from pre-existing properties, primarily because these are much easier to market given their pre-programmed cast of commodified characters. They are also less labor intensive and Catmull himself emphasizes a current drive at Pixar to radically reduce production time on films. Creativity Inc. on auto-pilot.

In contrast to Disney's well-documented, fractious labor history, the utopia of Pixar's fun factory is founded on the avoidance of unionization. Its first partnership with Disney for *Toy Story* was based on a fabricated third party company that would allow for noncontractual labor (Price: 133). Catmull insists that creativity is inhibited when employees have long-term contracts, preferring a precarious model that would motivate its workers, who are rewarded by perks of friendly life on Pixar's campus, which one should never want to leave unless of course they are fired. Contingency cuts both ways and not surprisingly only those in management positions can demand such flexibility of its employees. In 2014 Pixar shed 5% of its workforce, having difficulty with several new projects while ramping up production on a host of sequels. Pixar's nearly Oedipal relationship to Disney is written into its feature films as allegorical justifications for what Jerome Christensen has called a "deeply corporatist vision," one that

claims a primacy for its digital mode of production as the authentic, reverential vessel for Disney's brand, all opposed to the industrial mode prized by Walt himself yet stagnating prior to Catmull and Lasseter's dog-wagging takeover (2012: 333).

The future of work represented by Pixar's "fun factory" and Catmull's *Creativity Inc.* cannot help but recall an altered version of the Axiom: a combination of animation studio and Disney cruise ship where various distractions lead not to lethargy but an intense, affectively charged devotion for work become life, a philosophy of both management and art where corporation is friend for employees and audiences alike. WALL-E's own workless work, his transformation of automation into creative nostalgia, is a wish-image of Pixar's corporate ethos and not surprisingly the curios stored in his bunker—a Rubics cube, *Pong*, various commodity kitsch—were one of the most labor intensive spaces to animate, as much a sign of personal passion as professional obligation. These are objects anachronistic already in 2008 let alone seven centuries into the future, evincing a contemporary devotion to media never at their newest. WALL-E projected as the very model of a perfect Pixar employee, a corporate self-projection likewise at work in Pixar's recent feature, *Inside Out* (Docter & Del Carmen, 2015), where the labor of affects is anachronistically imagined as a combination of industrial control room, film studio and amusement park.

Conclusions

As a final provocation I would partially second Crawford and Sobchack's longing for visibly labored images, but rather than mourning the loss of the analog or artisanal, one might instead ask how to make the immaterial, creative and often "unseen" labor underlying digitally animated films like *WALL-E* manifest? Rather than nostalgically seeking slapstick (or the cinematic) as a means of bypassing industrialism for the sake of pre-Fordist communion with

body and world, we might instead seek comic forms adequate to post-Fordism. How might Toodles become funny without recourse to slapstick's Bergsonism? And since Fordism and Taylorism have hardly been eclipsed, where might slapstick make the messy intersections of the industrial and post-industrial laughable or thinkable, whether they be globally dispersed, multi-national owned factories or crushingly efficient companies like Amazon? Recalling the iPodesque EVE's ambivalent location between heartless directive and affective spark, how might we make labor visible as it circulates between, say, Foxconn factories in China and Apple's new Axiom-like campus in Cupertino? As initial reply, I would suggest that immaterial labor is hardly invisible in *WALL-E*. The film suggests that a refusal to show work calls attention to such absence all the more symptomatically, whether this be the industrial boredom WALL-E nomadically transforms, the missing century of modernism in its final credit sequence, or the ideology and aesthetic of Pixar as corporate friend. Images "visibly labored" might be most present precisely when they are avoiding industry. In such moments, this might be when their fun factories are working hardest.

References

- Adorno T and Horkheimer M (2002) *The Dialectic of Enlightenment*. Stanford: Stanford University Press.
- Attali J (1991) *Millennium: Winners and Losers in the Coming World Order*. New York: Random House.
- Bazin A (2009) *What is Cinema?*. Montreal: Caboose.
- Benjamin W (2008) *The Work of Art in the Age of Its Technological Reproducibility, and Other Writings on Media*. Cambridge: Belknap/Harvard.
- Berardi F (2009) *The Soul at Work: From Alienation to Autonomy*. New York: Semiotext(e).
- Bergson H (1911) *Laughter: An Essay on the Meaning of the Comic*. London: MacMillan.
- Boltanski L and Chiapello E (2007) *The New Spirit of Capitalism*. London: Verso.
- Bukatman S (2012) *The Poetics of Slumberland: Animated Spirits and the Animating Spirit*. Berkeley: University of California.
- Canavan G (2014) "WALL-E and Utopia," *in media res*. 24 April: <http://mediacommons.futureofthebook.org/imr/2014/04/24/wall-e-and-utopia> (accessed: 1 June 2015).
- Carr N (2011) *The Shallows: What the Internet is Doing to Our Brains*. New York: W.W. Norton & Company.
- Carr N (2014) *The Glass Cage: Automation and Us*. New York: Norton.
- Catmull E and Wallace A (2014) *Creativity, Inc.: Overcoming the Unseen Forces that Stand in the Way of True Inspiration*. New York: Random House.
- Cavell S (1978) "What Becomes of Things on Film?" *Philosophy and Literature* (2:2): 249-257.
- Cavell S (1979) *The World Viewed: Reflections on the Ontology of Film*. Cambridge: Harvard.
- Christensen J (2012) *America's Corporate Art: The Studio Authorship of Hollywood Motion Pictures*. Stanford: Stanford University Press.
- Crafton D (2012) *Shadow of a Mouse: Performance, Belief, and World-Making in Animation*. Berkeley: California.
- Crawford M (2015) *The World Beyond Your Head: How to Flourish in an Age of Distraction*. New York: Viking.
- Crawford M (2010) *Shopclass as Soulcraft: An Inquiry into the Value of Work*. New York: Penguin.
- Eisenstein S (1988) *Eisenstein on Disney*. London: Methuen
- Ernst W (2013) *Digital Memory and the Archive*. Minneapolis: University of Minnesota.
- Ford H (1923) *My Life and Work*. New York: Doubleday.
- Ford M (2015) *Rise of the Robots: Technology and the Threat of a Jobless Future*. New York: Basic Books.

- Frampton H (2009) *On the Camera Arts and Consecutive Matters*. Cambridge: MIT.
- Grieverson L (2012) "The Work of Film in the Age of Fordist Mechanization" *Cinema Journal* 51 (3), Spring: 25-51.
- Gunning T (1994) "Crazy Machines in the Garden of Forking Paths: Mischief Gags and the Origins of American Film Comedy," in Karnick, K Jenkins H (eds) *Classical Hollywood Comedy*. Routledge: New York.
- Gurevitch L (2015) "From Edison to Pixar: The spectacular screen and the attention economy from celluloid to CG," *Continuum: Journal of Media & Cultural Studies* 29(3): 445-465.
- Halberstam J (2011) *The Queer Art of Failure*. Durham, NC: Duke.
- Miriam Hansen (2011) *Cinema and Experience: Siegfried Kracauer, Walter Benjamin, and Theodor W. Adorno*. Berkeley: University of California.
- Hardt M (1999) "Affective Labor," *boundary 2* 26 (2), 89-100.
- Hardt M and Negri A (2001) *Empire*. Cambridge: Harvard.
- Harman G (2002) *Tool-Being: Heidegger and the Metaphysics of Objects*. Chicago: Open Court.
- Herhuth E (2014) "Life, Love, and Programming: The Culture and Politics of *WALL-E* and Pixar Computer Animation," *Cinema Journal* 53 (4): 53-75.
- King R (2009) *The Fun Factory: The Keystone Film Company and the Emergence of Mass Culture*. Berkeley: California.
- Kracauer S (2000 [1941]) "Dumbo" in Bromley C (ed) *Cinema Nation: The Best Writing on Film from The Nation*. New York: Nation Books.
- Kracauer S (2012) *Siegfried Kracauer's American Writings*. Berkeley: University of California.
- Krämer P (Spring 1989) "Derailing the Honeymoon Express: Comicality and Narrative Closure in Buster Keaton's *The Blacksmith*," *The Velvet Light Trap* 23: 101-116.
- Lane A (2011) "The Fun Factory: Life at Pixar" *The New Yorker*. 16 May. Accessed 2 June 2015: <http://www.newyorker.com/magazine/2011/05/16/the-fun-factory>.
- Lazzarato M (2006) "Immaterial Labor" in Hardt M (ed) *Radical Thought in Italy: A Potential Politics*. Minneapolis: University of Minnesota.
- Leslie E (2004) *Hollywood Flatlands: Animation, Critical Theory and the Avant-Garde*. New York: Verso.
- Manovich L (2001) *The Language of New Media*. Cambridge: MIT University Press.
- Price D (2009) *The Pixar Touch: The Making of a Company*. New York: Vintage.
- Rifkin J (1995) *The End of Work: The Decline of the Global Labor Force and the Dawn of the Post-Market Era*. New York: Putnam.
- Sammond N (2005) *Babes in Tomorrowland: Walt Disney and the Making of the American Child*. Durham: Duke University Press.
- Sammond N (2015) *Birth of an Industry: Blackface Minstrelsy and the Rise of American Animation*. Durham, NC: Duke.

- Sragow M (2008) "Silent Knight," *Baltimore Sun*. 29 June.
- Sobchack V (2009) "Animation and Automation, or, the Incredible Effortfulness of Being," *Screen* 50 (4): 375-391.
- Stacey J and Stuchman L (2012) "Animation and Automation—The Liveliness and Labors of Bodies and Machines," *Body & Society* 18 (1): 1-46.
- Turkle S (2012) *Alone Together: Why We Expect More from Technology and Less from Each Other*. New York: Basic Books.
- Wells P (2011) "The Chaplin Effect: Ghosts in the Machine and Animated Gags," in Goldmark D Keil C (eds) *Funny Pictures: Animation and Comedy in Studio-Era Hollywood*. Berkeley: University of California.
- Zizek S (1992) *Enjoy Your Symptom: Jacques Lacan in Hollywood and Out*. New York: Routledge.
- Zizek S (2008) *In Defense of Lost Causes*. London: Verso.