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#### [audio]

#### Remember when we were little kids? We played with toy cowboys on the frontier, playmobil knights slaying dragons. Barbies: sluts, cowboys: colonizers, computers?: digitalization and life, captivity and flight, games, videos, movies, Pixar! Don’t you feel the nostalgia? Don’t you feel yourself rising into the air, like so many humans Wall-E chased? Are we the colonizers? Are we the computer? Are we the ones Wall-E might save? or will we become the cyborg?

Montgomery 11. Colleen Montgomery (Colleen Montgomery is a Ph.D. student in the Media Studies program at the University of Texas at Austin. This paper was presented at Animation Evolution, the 22nd Annual Society for Animation Studies Conference, Edinburgh July 2010), 2011, “Woody’s Roundup and Wall-E’s Wunderkammer Technophilia and Nostalgia in Pixar Animation,” Animation Studies, <https://journal.animationstudies.org/wp-content/uploads/2011/09/ASVol6Art2CMontgomery.pdf> sean!

Although Pixar Animation’s corporate identity has long been tied to the studio’s advancement of digital animation technologies, many of Pixar’s films paradoxically seem to highlight, and even champion, disused, archaic and obsolete technologies over their digital successors. The above quote neatly hypostatizes this sentiment: Pete the Prospector, a mint-in-the-box collectable toy, laments the effects of the space race and the development of rocket science, on the technologization of children’s toys, children’s play, and American culture more generally. The Prospector character, like Woody the cowboy (the protagonist of the Toy Story series) is a lowtech pull-string doll. Both dolls are merchandising spin offs from a fictional 1940-1950s television show in the film entitled “Woody’s Roundup”: a Western adventure series enacted with wooden marionettes and cut outs. Once a popular program, with the advent of space exploration technologies, or so The Prospector claims, audiences quickly lost interest in the show’s Old West frontier narrative as a new frontier myth began taking shape in the American cultural imagination. Beverly J. Stoeltje aptly terms this twentieth century frontier myth the “Space Age Myth,” wherein covered wagons and pioneers/cowboys are supplanted rockets and astronauts as the push for Westward expansion is transfigured into the drive for expansion into outer space (1987, p. 240). The show was thus abruptly cancelled, and Woody and the rest of his “Roundup gang” quickly fell out of fashion. Ironically, the trajectory of the fictional “Woody’s Roundup” in Toy Story 2 in many ways reflects the very real impact that the highly successful Toy Story series, and Pixar more generally, has had on animation practices and contemporary screen cultures. This paper addresses this apparent contradiction, exploring the ways in which Pixar on the one hand exemplifies the increasingly animated/virtual nature of media forms, while on the other, reveals animation’s recuperative capacity to operate as a form of digital archive for the cultural/material artefacts rendered obsolete by ‘virtual realities’. Pixar as Digital Pioneer Pixar’s advancements to the field of computer animation radically altered the landscape of animated filmmaking; the years following Pixar’s release of the first computer generated feature in 1995 saw the widespread popularization of 3D computer animation technologies in both animated and live action cinema. By 2004, numerous animation studios had begun gearing their production towards computer generated fare: DreamWorks announced that they would no longer make 2D animated films, while Disney largely dismantled and retooled its animation wing towards computer animation (Michael Eisner having concluded that public tastes had shifted away from hand-drawn and towards a new digital aesthetic). Moreover, following Disney’s acquisition of Pixar in May 2006, many of Disney’s new theme park rides/shows also began employing digital animation and Wi-Fi technologies in lieu of their classic animatronics. 7 Animation Studies – Vol.6, 2011 Thus, just as the arrival of “space toys” rendered Woody’s Roundup Gang obsolete, the Pixarpioneered technologies of computer animation have arguably displaced hand-drawn traditions in mainstream American animation. Disney’s recent return to 2D, with their first hand-drawn animated feature in five years, The Princess and the Frog, and their commitment to produce two new hand-drawn features in the coming years, perhaps signals a change in this trend, though it is worthwhile to note that the computer animated films: Up; A Christmas Carol; Cloudy with a Chance of Meatballs; Monsters vs. Aliens; and Ice Age: The Dawn of the Dinosaurs which were also released in 2009, all fared better at the box office than The Princess and the Frog. 1 The latter film was no doubt beleaguered with other problems – not the least of which being its highly contentious constructions of blackness and deployment of racial and gender stereotypes – which had a decisive impact on its reception.2 Nonetheless, the sheer volume of and popular interest in computer animated features in 2009, as compared to their traditionally animated counterparts, speaks to a marked shift in animated production/reception patterns. In short, if, as Thomas Lamarre and other media theorists have proposed, animation has, in the 21st century, become “the dominant logic of the moving image” (2009, p. 36) Pixar has played a central role in redefining and repositioning animation within contemporary filmmaking and viewing practices. Indeed, Pixar has long been associated with the technological advancement and optimization of digital animation. The studio’s early exploits in digital effects as the Graphics Group at Lucasfilm (prior to its incorporation as Pixar Inc. in 1986) for The Young Sherlock Holmes and Star Trek II: The Wrath of Khan, its digitization of Disney’s ink and paint system using the PIC (Pixar Image Computer), as well as its continued development of its proprietary RenderMan software, exemplify its foundational work in the field of computer graphics. In fact, this notion of Pixar as pioneer and innovator of rendering technologies is a central component of Pixar’s selfpromotional rhetoric, or what John Thornton Caldwell calls Pixar’s “self-theorizing” discourse; a process whereby, as he describes, “sci-tech morphs into artistic vision” (2008, p.22). Pixar’s official website is replete with such informational bytes attesting to the studio’s technological ‘pedigree’ and aesthetic digi-complexity, enumerating for example, the lines of code required to render a given object or frame, the complex processes involved in creating various ‘shaders’ or textures, the number of rendering hours required to create a certain shot, as well as the studio’s ongoing advancement of digital 3D. Yet, inasmuch as Pixar has played a key role in the popularization and proliferation of digital animation across a range of media – from film, to video games, and even amusement park rides – many of its films problematize the rapid development and implementation of new digital technologies. In spite of the emphasis that the studio itself places on its technological virtuosity and professional reputation as software manufacturer, films such as the Toy Story series, Wall-E, Monsters Inc., and Cars, in particular, construct a pointed critique of the digital retooling of individual labour as well as the convergence of technology and the human body. Moreover, these films evince a pronounced nostalgia for obsolete or outmoded technologies. 1 Each film outmatched Disney’s 2D feature in terms of both domestic and international box office gross, with the exception of Cloudy with a Chance of Meatballs, which The Princess and the Frog surpassed in foreign box office returns. Box office figures are taken from Box Office Mojo’s “Animation 1980-present” statistics. 2 Neal A. Lester’s Disney’s The Princess and the Frog: The Pride, the Pressure, and the Politics of Being a First” provides a critical overview of the debates surrounding the film’s racial politics. 8 Animation Studies – Vol.6, 2011 Woody’s Roundup: Rendering the Anachronistic As an origin story within the diegetic world of the Toy Story series, “Woody’s Roundup” is an ideal locus for exploring Pixar’s critique of technologically mediated culture, and its fetishization of the low-tech, of archaic objects and media forms. Woody’s introduction to his “Roundup Gang” and edification as to his personal and socio-cultural provenance is largely facilitated by his interactions with episodes of the Roundup program and ancillary merchandise spun off from Woody’s eponymous series. This process of self-discovery is illustrated at length in a scene nearing the film’s midway point in which Woody, along with the other members of his ‘gang,’ collectively view the final “Woody’s Roundup” episode – a cliff-hanger never to be resolved due to the show’s precipitous cancellation. More than a simple ‘screen within a screen’ narrative device, the “Woody’s Roundup” scene – with its kitschy, crudely fashioned set pieces and puppets – puts into sharp relief a stark juxtaposition in the film: the sequence employs state of the art digital rendering technologies (at least for the time of the film’s production) to create purposefully flimsy looking 2D wooden cut out animals and sets, to model rickety puppets with limited range of motion and facial expressions, and to achieve an overall grainy, washed-out aesthetic on an analogue television screen. The “Woody’s Roundup” sequence can thus be read as a tongue in cheek homage to outmoded media forms – black and white analogue television, children’s marionette television series of the 1950s (such as Howdy Doody and Andy Pandy), and arguably the marionette itself, now increasingly replaced in film and television with digital puppetry. The sequence romanticizes low-tech, anachronistic media, yet simultaneously exploits and exhibits the aesthetic/representational versatility of digital rendering software. The scene immediately following the group screening makes this nostalgic thrust and reverence for the archaic all the more pronounced. Having been stolen by a sinister toy collector, Al, Woody becomes the unwitting centerpiece of a prodigious assemblage of Woody’s Roundup toys and memorabilia. Though initially determined to return to his owner, Andy, after uncovering his televisual history, Woody begins to take up a highly romanticized view of the Roundup show and the remnants of its multimedia incarnations. Thus, following the group screening, Woody, along with the viewer, explores the vast collection of toys and other mass-produced merchandise derived from the show that Al has unearthed and restored. Like Woody himself, these items – a mechanical piggy bank, a wooden yo-yo, a ball-toss game and a record player – have now become highly collectible items. These mostly low-tech toys and gadgets that have fallen into desuetude, material relics of a bygone era in American culture, are here recuperated and restored to their original glossy colour and working order and showcased as prized pieces of Americana. On a wider scale, old fashioned and out of production toys feature prominently throughout the Toy Story series – toys such as the Etch-A-Sketch, the Slinky Dog (which, in fact had been discontinued prior to Toy Story’s release, but was resurrected for the film and put back into production as a result of the its box-office success), the iconic Fisher Price Chatter Phone, and a whole host of discarded second hand toys in Toy Story 3. Indeed, much like Toy Story 2, the final film in the trilogy is deeply steeped in nostalgia both for a bygone era (in this case that of Andy’s childhood) and for the disused and démodé, embodied here in the toys that the child has now outgrown. Even Andy’s younger sister, Molly, who is ostensibly still within the target demographic for the toys, has no interest in them. Molly, perpetually wired to her mp3 player, instead expresses an interest in having Andy’s old computer and video games. Therefore, just as the Prospector indicts “space toys,” for their role in transforming and technologizing children’s 9 Animation Studies – Vol.6, 2011 play, on a broader level, the Toy Story series implicitly critiques the emergence of the digital cultures of video games, iPods, music downloading, etc., and actively problematizes the impact of such processes of digitization on American cultural production/consumption. Wall-E’s Wunderkammer and the Horrors of Cybertechnology Wall-E (2008) is similarly preoccupied with the ramifications of the virtualization of media and culture; however, it paints a much bleaker portrait. Wall-E conveys a dystopic vision of a postEarth human society in which hyper-media saturation and cyberntechnic immersion have desensitized and radically dehumanized the individual. Constantly plugged in and logged on to computer screens and video chat programs, all facets of social interactions mediated by a digital interface, humans have essentially become cybernetic beings.3 3 This breakdown of the boundaries between the organism and the machine, between the organic and the inorganic recalls both Haraway’s theorization of the cyborg and Hayles’ ‘posthuman’ subject wherein the body is so “seamlessly articulated with intelligent machines” that the “demarcations between bodily existence and computer simulation” are dissolved (1999, p. 3). Yet, unlike Haraway and Hayles, the film does not see the cyborg as a potentially progressive and “fruitful coupling” (1999, p. 150) or a vehicle for political work, but as a nightmarish “final appropriation” (1999, p. 154) of the human body by the cybernetic. This techno-media assimilation of the individual amounts to a digital annexation of the human body, dispossessing the subject of individual agency and disintegrating the fabric of community and social bonds. Unable to move independently due to their sedentary lifestyle and loss of bone density in space, humans are shuttled around in “hover chairs,” waited on 24 hours a day by automated attendants, clothed in digitally rendered attire, educated by robots and virtual projections, and even soothed in infancy by holographic mobiles, all while remaining indefinitely confined to a spacecraft shepherded by a sinister HAL-like digital “auto-pilot.” The boundaries between the biological and the digital are thus blurred as the body is overwhelmed by digital appendices and assimilated into the ship’s vast virtual network. It is only by means of a radical disconnect – ejecting from the hover chair, powering down the personal video projector, abandoning the techno-automated spaceship – which comes at the film’s end, that the individual is able to recuperate his/her autonomy and reconstitute a socially meaningful civic life. Technology’s destructive dimensions are also made manifest in the character of EVE (the Extraterrestrial Vegetation Evaluator), a highly advanced robot from the 29th century (the film’s present day), and Wall-E’s love interest. EVE is introduced in a chaotic flurry of fire as the spaceship transporting her touches down on earth scorching everything in its path. Her first meeting with Wall-E shortly thereafter is equally punctuated with explosive violence, as EVE holds Wall-E at gunpoint and shoots at him repeatedly. This menacing hostility sits rather at odds with EVE’s alluringly polished, streamlined, even graceful appearance; her sleek iPod-like body doubles as a powerful weapon, which even she seems incapable of fully controlling, often inadvertently wreaking havoc on her surroundings.4 EVE is then read as an allegory for the deceptive appeal of digital technologies, which belies an assaultive capacity and volatility. Wall-E’s critique of this technological cocooning and digital sequestration of the body, as well as of the interrelation of digital technology and weaponry, gesture here towards a deeper scepticism and problematization of technology’s utopian promise, which is further articulated in the film’s dystopic depiction of Earth. Ironically, Pixar, a company with a vested interest in and corporate ties to Silicon Valley, creates in Wall-E a form of Silicon Wasteland filled with skyscrapers of refuse and scattered forms of digital debris – such as the fading digital projection screens which, diegetically, serve to explain humanity’s mass exodus into space. Earth is envisioned as a massive landfill almost entirely devoid of organic life, encircled – as the film’s shot reveals – in vast, dense ring of defunct artificial satellites. Hyper-technologization and the proliferation of digital devices, are thus envisioned as a threat not only to the body and fabric of the social, but to very existence of life on Earth. However, from among this seemingly infinite body of wreckage and heaping rubbish towers, the film highlights a number of salvaged objects – once again focussing on outdated or defunct media and technology. In the first place, Wall-E himself can be interpreted as a form of obsolete machine, a fact made clear in his juxtaposition with the much more technologically sophisticated EVE. And indeed, as the only other Wall-E units we encounter in the film are completely nonfunctioning, Wall-E seems to be not only a centuries old relic, but the last surviving model of his kind. The beaten up robot is, moreover, an avid collector of disused devices like himself and, as we discover, has built a treasury of discarded objects – the most prized among them being a Betamax tape of Hello Dolly, a 1969 film which is itself a period piece that fondly looks back to the 1890s. As with Toy Story 2 and the restored “Woody’s Roundup” memorabilia, in the face of the transformation of material culture into digital culture and the rise of digital media, Wall-E catalogues and, quite literally, reanimates outmoded material/cultural objects in a type of archive: a cabinet of curiosities in an abandoned truck counting everything from CDs to an animatronic singing bass, a mechanical egg beater, a longcase pendulum clock, and hundreds of other items. Wall-E thus creates a virtual repository in which abandoned, anachronistic cultural artefacts are resurrected and preserved in a form of digital archive. Technology, Labour, and Community in Monsters Inc. and Cars Though perhaps most pronounced in Toy Story 2 and Wall-E, Pixar’s proclivity for the archaic and its often cynical perspective on the rise of digital media and technologies crops up in a number of the studio’s other works. Much like Wall-E, the 2001 Monsters Inc. also clearly articulates tensions surrounding technology, production and the body, particularly in regards to the technological re-tooling of labour and technology’s infringement on the human body. The latter are made manifest in the film’s “scream extractor”: a machine equipped with a protruding, vacuum cleaner-like arm designed to literally suck screams right out of a child’s mouth – children’s screams being the main source of energy in the Monsters’ world. Here technology, the machine, is incontrovertibly pernicious and assaultive enacting what is tantamount to vocal rape – forcefully wresting a scream from the child’s body in violation of her will. Moreover, the scream extractor poses a threat to the monsters themselves, as the machine obviates the need for the monsters’ scare-inducing labour, mechanizing the entire process of scream extraction. In sum, like Wall-E, Monsters Inc. troubles the rise of digital industries in relation to the consequent eradication of traditional industrial modes of labour and production. Finally, Pixar’s 2006 film, Cars, similarly exhibits both a wistful nostalgia for archaic technologies and adopts a highly sceptical view of technicized culture. The film is essentially an elegy to an outmoded channel of transportation: Route 66 (known colloquially as “The Mother Road” or “The Main Street of America”) which was superseded by the Interstate Highway System, and officially removed from the US Highway system in 1985. Cars juxtaposes the fastpaced world of racecar driving – portrayed as Alan Kirby aptly notes in a “hyperrreal media haze” (2009, p. 16) moderated by a cacophony of tv commentators, camera crews and photographers – with the sleepy world of Radiator Springs, a once flourishing cultural and economic hub of Route 66 since bypassed by the Interstate and all but forgotten. Cars’s marked sentimentality for the heyday of Route 66 and its ‘mom and pop’ business-centred communities is 11 Animation Studies – Vol.6, 2011 epitomized in its numerous homages to several iconic Route 66 heritage sites from Cadillac Ranch to the Wigwam Motel and the UDrop Inn, and caricatures of Route 66-related personalities (including, most notably Michael Wallis, author of Route 66: The Mother Road – a cultural history of the highway – as the voice of Sheriff). Marketing Nostalgia and Pixar as Digital Archive How can this paradox running through many of Pixar’s films be reconciled? How can Pixar’s reverence for antiquated devices/technologies and wariness of digitization and, simultaneously be understood in relation to its emblematic role in the development of digital media, so intrinsic to its corporate identity? There are several main lines of inquiry that I would like to propose are worthy of further consideration in this regard. The first of these is Pixar’s relationship with its parent company, Disney, which has long been in the business of marketing nostalgia. Advertisements for Disney’s many worlds that promote a Disney theme park vacation as a return to childhood are perhaps most evocative of this nostalgic bent. Disney’s “Year of a Million Dreams” campaign, which restages iconic scenes from Disney features using popular actors and celebrities (including Beyoncé as Alice in Wonderland, Tina Fey as Tinkerbell, and David Beckham as Sleeping Beauty’s prince) is a chief example of such marketing tactics. The 2007 campaign, photographed by Annie Leibovitz, specifically targeted an adult demographic, and appeared in such magazines as Vogue, Vanity Fair, W, GQ, and The New Yorker. Correspondingly, Pixar’s romanticization of American cultural icons of the 1940s through 60s – i.e. Route 66, the main highway for American vacationers in the 1950s, popular 1950s-60s marionette television shows, and so on – can be interpreted as a marketing strategy to attract a broader audience beyond animation’s (and especially Disney-produced animation’s) traditional child/family demographic. In a similar vein, it is also worthwhile to consider how Pixar’s animators/directors’ – predominantly men in their 40s and 50s – own nostalgia for the gadgets and toys they played with growing up, how their techno-geek love of mint in the box collectibles like the Prospector is inscribed in Pixar’s films.5 Third, Pixar’s championing of the analogue, the obsolete, and the low tech, arguably functions to allay anxieties surrounding the very processes of digitization which Pixar has helped usher in. The veneer of sentimentality and rosy nostalgia for rudimentary technologies (a clunky broken down robot, simple wooden toys, etc.) perhaps serves to mitigate and soften the terrifying complexity of the technology and the inscrutable amount of bytes, data and circuitry required to render Pixar’s animated worlds.6 Thus, in exploring the capacities of digital media to operate as an archive for those elements of material cultural rendered obsolete by new technologies, Pixar facilitates identification and association with the digital, which is envisioned here as more than mere bytes of data, but as a potential database, for preserving and recording the material in an increasingly digitized world.

#### Wall-E just may have been onto something. Even as capital appropriates our fear of technology into a marketed rejection of the future, spaceflight extends the Cartesian master subject into the cosmos, an epistemological orientation of domination that is inaccessible to the feminine subject

Deerfield 16. Kat Deerfield, 2016, “Heavenly Bodies Gender and Sexuality in Extra-Terrestrial Culture,” Cardiff University, <https://orca.cardiff.ac.uk/93157/1/Deerfield%20final%20PhD%20thesis%202016.pdf> sean!

The concept that Rose employs of the ‘master subject’ of geographical knowledge is an important basis for my theoretical approach. Donna Haraway elucidates the meaning of this figure in her ‘Situated Knowledges’, in which Haraway describes it as possessing a ‘cyclopian, self-satiated eye’.15 As Haraway argues, the construction of the ‘master subject’ as the possessor of exhaustive and objective scientific knowledge is limited both in that it is imbued with a particular race (white) and gender (male) and also in that the goal of exhaustive objectivity is not achievable.16 Haraway claims that ‘only partial perspective promises objective vision’.17 In ‘Situated Knowledges’, Haraway calls for a feminist reclamation of the concepts of vision and perspective. Haraway argues that such reclamation can reincorporate the corporeality and the diversity of experience from which the ‘master subject’ of traditional scientific perspective attempts to distance itself. As I will explore later in this chapter, the perspective of spaceflight provides both examples of the construction of the ‘master subject’, and also opportunities to destabilise this concept, which I argue can contribute to the Haraway’s project of ‘Situated Knowledges’. Rose’s Feminism and Geography further elaborates on the way the ‘master subject’ figure has impacted upon the development of geography and the geographic subject. Toward this end, in Feminism and Geography Rose makes a clear and succinct statement of her approach as one which concerns the gender of geography, rather than the subject of gender within traditional geographic discourse.18 In other words, Rose is interested in analysing the discipline itself for gendered attributes, not using the discipline as its stands to discuss gender issues. This is an important distinction not only for this chapter, but also for all that follows it, as I will discuss in my introduction to Part Two. For the purposes of this chapter however, it is particularly important because it relates to Rose’s further discussion of the ‘master subject’ of the geographic discipline. Rose and the Gender of Geography In applying the concept of the ‘master subject’ to geography specifically, Rose illuminates how the field itself has insidiously privileged one particular perspective at the expense of all others. The key problem with this which Rose identifies is the construction of all perspectives, save the privileged ‘master subject’, as primarily characterised by their difference from the norm. Rose defines this subject in relation to geography as ‘a white, bourgeois, heterosexual man’, who, in the development of the discipline, sought primarily to ‘render the world amenable to the operation of masculinist reason’.19 The ideal of this geographic ‘masculinist reason’ is a way of knowing, and a knowledge, which can be generally applied. Rose writes: ‘Geographers desire knowledge of the whole world, but, more importantly for their claims to power through knowledge, they also desire a whole knowledge of the world.’20 This ‘knowledge of the whole world’ has clear implications for spaceflight; for, as I will discuss further in this chapter, what better way to see the whole Earth than to see it from outer space? The goal of ‘whole knowledge of the world’ reveals the privileging of one, unmarked perspective; through the construction of the ‘master subject’, this can only ever be a masculine perspective, and a perspective which intrinsically denies the value of any other.21 I argue that both of these aspects of what Rose terms ‘masculinist reason’ have important implications for analyses of the discourse of spaceflight. This also has a clear relationship to Harvey’s claim about ‘the globe as a knowable totality’. Taking both Harvey and Rose into account along with Haraway, it is clear that the subjectivity which seeks what Rose calls ‘knowledge of the whole world’ and ‘whole knowledge of the world’ is historically coded as a masculine subject. That the perspective granted to an extra-terrestrial observer is discussed in such similar ways as the traditional construction of geographic subjectivity contributes, I argue, to the male dominance of human spaceflight. In addition, in Rose’s work on the history of the masculinist geographic subject, she argues that ‘denial of…corporeality’ is central to the subject’s self-definition. As she further argues, this denied corporeality is applied to the construction of the Other, including women, and the denial functions to reinforce the masculinity of this subject.22 I will return to this point in this chapter’s final section when I discuss the figure of Galactic Girl and Virgin Galactic’s visual branding. In addition to this, I find it productive to consider this aspect of Rose’s argument in relationship to the work of Kathleen M. Kirby on the disciplinary origins of cartography. Kirby’s work expands upon my consideration of Rose and Harvey’s arguments about space and perspective, particularly through Kirby’s work on the primacy of borders in cartographic vision. Kirby on Cartographic Subjectivity The relationship between cartographic borders and bodily-spatial borders is a key focus of Kirby’s work on exploration and mapping discourse. In ‘Re:Mapping Subjectivity: Cartographic vision and the limits of politics’, Kirby argues that ‘cartography selectively emphasizes boundaries over sites’: both the boundaries between delineated spaces and the boundaries between body and space.23 Cartography, as Kirby illustrates, intrinsically privileges the boundaries between spaces over the spaces themselves, as this is how spaces become representations on a map. Kirby further argues that carography’s emphasis on boundaries/borders extends beyond the material constraints of mapping. The emphasis on boundaries also applies to the construction of what Kirby identifies as the Enlightenment or Cartesian subject, the subject of the early exploratory ventures that gave Western spatial discourse its origins. Kirby explains: The similarity of mapped space and the mapping subject stems from the way the boundary between them is patterned as a constant barricade enforcing the difference between the two sites, preventing admixture and the diffusion of either entity. Cartography institutes a particular kind of boundary between the subject and space, but is also itself a site of interface, mediating the relationship between space and the subject and constructing each in its own particularly ossified way.24 In cartography, Kirby argues, the exploratory subject’s body is defined by its remaining bounded from exterior space. This ultimate construction of boundedness is threatened by what is traditionally understood as the feminine attribute of bodily permeability.25 This strictly bordered subjectivity is additionally threatened by the risk of the subject getting lost within the landscape. In this way, Kirby argues, cartography as a way for the subject to not be lost relies on two different kinds of borders – the borders drawn on a map, and the borders separating the body of the subject from its exterior.26 In Kirby’s discussion of the Western subject ‘being lost’, she explains that it is necessary for the Western explorer to conceive of himself as separate from the landscape, in a 'position of mastery' above and outside of the territory itself.27 This, Kirby argues, is one of the primary functions of cartography: ...to ensure that the relationship between knower and known remains unidirectional. The mapper should be able to 'master' his environment, occupy a secure and superior position in relation to it, without it affecting him in return. This stance of superiority crumbles when the explorers' cartographic aptitude deteriorates. To actually be in the surroundings, incapable of separating one's self from them in a larger objective representation, is to be lost.28 This has a particularly masculine association, illustrated by considering again Rose’s argument about the ‘master subject’ and this subjectivity’s need to deny its own corporeality. Without a pre-existing map, Kirby argues, the Western exploratory subject in a foreign land is always lost, because his perception of space requires that he be safely bounded from it. A female subject, Kirby goes on to argue, cannot occupy this subjectivity, because of the associations of femininity not only with the body but with a body that is not able to divest itself of spatial awareness.29 The boundary between self and space is of paramount importance to this subject because, Kirby argues, it is the only way for the Western explorer to ‘”master” his environment…without it affecting him in return.’30 As Kirby explores, when the subjectspace/interior-exterior boundaries are threatened, the integrity of this ‘master subject’ is dangerously undermined, and with it, the ability to act as an appropriate cartographic observer. Drawing upon Rose’s and Kirby’s work on perspective, boundaries, and the subject, I will argue that the astronaut’s perspective both exemplifies and problematizes the Western ideal of empirical subjectivity. While the astronaut literally personifies the ideal of a perspective separate from earth, the traditional associations of this perspective with the limited ‘master subject’ figure undermine claims that the perspective of astronauts is unique and inherently progressive.31 As I will show, claims of the progressive nature of this perspective are common in the discourse of space culture, and this has important implications for analysing gender issues within the field. One key aspect of spaceflight experience that receives a great deal of attention in the literature is the issue of perspective itself. Travelling to space grants an astronaut a particular perspective on Earth and its place in the cosmos. It is often argued, notably by many returned astronauts and, comprehensively, by Frank White in The Overview Effect that looking in on Earth from the outside creates a new, progressive, and inherently egalitarian perspective on humanity.32 It is this concept of astronautic vision and its various manifestations to which I will devote the remainder of this chapter, beginning with the work of Frank White. White argues that the experience of seeing Earth from a truly outside perspective has a far-reaching, positive impact upon the development of human consciousness. Specifically, White’s claims centre on an idea of extra-terrestrial perspective allowing for a more egalitarian view of humanity through a realisation of our membership in a planetary whole, and that this realisation comes specifically from the ability to see the planet from outside. White maintains that this phenomenon of viewing the Earth from beyond it is unique to the experience of flight; in a limited sense, he argues, this is achievable from an airplane, but to truly experience it requires escaping the Earth’s atmosphere.33 The crux of White’s argument is the idea that by physically separating the observer from the Earth, the observation becomes inherently more objective. In what follows, I take issue with White’s assertion on two counts: first, I disagree with White’s claim that this perspective is philosophically unique to the aerospace field; second, I find it difficult to accept White’s contention that this perspective necessarily, or even plausibly, frees the observer from the constraints of cultural bias. These two points of contention are related. I will address the second point in more detail in my section on White’s work. Regarding the first point, my critique is informed by David Harvey’s assessment of the philosophical origins of Renaissance mapping techniques. While spaceflight is a recent human experience, Harvey’s work suggests that the ideal of extra-terrestrial perspective is in fact much older. Further, as I will argue, this has important consequences for the cultural construction of astronautic vision. ‘the globe as a knowable totality’: David Harvey and The Overview Effect In The Condition of Postmodernity, Harvey argues that the basis of the Western construction of the scientific observer is, ultimately, an extra-terrestrial perspective, as I discussed in the introduction to this chapter. Following from this, I argue that not only is the construction of astronautic vision as particularly objective not new, but is in fact a continuation of the same discourse of scientific observation that came to prominence in the Renaissance. Further, this carries with it the weight of traditional ideas of a masculine subject associated with Cartesian scientific ideals that Kirby’s work identifies. The continuance of this discourse thus has important implications for contemporary discussions of gender in space programmes. Harvey's analysis demonstrates that what White has termed the ‘overview effect’, though perhaps individually realised in spaceflight, is ultimately one of the underlying concepts of Western spatial discourse. What White views as a unique perspective does not solely belong to the field of space travel, at least symbolically. While it may only be a recent phenomenon that humans 83 actually can see the globe from outside, I argue that they are taking the symbolic weight of a long history of thought with them.34 The concept of viewing the Earth from beyond it is one that is deeply intertwined with ideas of a bounded subject, able to perceive the Earth in its entirety because the subject itself can remain outside and separate from that which is observed. Throughout the history of modern thought this subject, coded as impermeable and disembodied, has invariably been coded as male. I argue that astronautic perspective is constructed in the same essential ways that the Western ideal of the scientific subject has been constructed since the Enlightenment, with all of the essential assumptions about the observer that this entails. Rather than intrinsically opening up new avenues of human knowledge, as White has argued, I argue that the literal realization of this extra-terrestrial perspective has merely allowed the traditional discourse of spatiality to be carried beyond our atmosphere. On this point, my perspective has been further informed by Rose’s Feminism and Geography, particularly in so far as Rose addresses the gendered aspects of the construction of Enlightenment cartographic observation. The geo-/cartographic observer/subject Rose addresses here is the same figure Harvey identifies as an essentially extra-terrestrial observer, and this has important implications for my interpretation of Rose’s argument about the claims to objectivity in geographic perspective. Rose identifies the problem of the marked and unmarked observer in the development of this spatial perspective, in which the unmarked is very particularly a male observer. Aside from the one accepted perspective, Rose argues, all other perspectives are defined by their difference from the norm. As Harvey illustrates, the constructed observer in Renaissance mapping is one who looks at Earth from outside. This is an almost literal manifestation of what Rose terms ‘knowledge of the whole world’ and ‘whole knowledge of the world’. Some five centuries later, this perspective can be literally realised in the viewpoint of the astronaut. Yet despite the many social advances that have come in the centuries since the development of these geographic principles, as I will discuss the discourse of spaceflight research and policy is still shaped by cultural assumptions about gender and the body, which are not borne out by objective reason. This forms part of my other criticism of White’s theory; these assumptions, I argue, seriously contradict his claims that the ‘overview effect’ perspective offers an opportunity to shed the constraints of human culture.

#### Thus, we affirm that Galactic Girl’s appropriation of space is unjust – we reread the fictional realizations of femininity in space and reject her objectification – the 1AC is the project of becoming Galactic Girl and openening her eyes

Deerfield 2. Kat Deerfield, 2016, “Heavenly Bodies Gender and Sexuality in Extra-Terrestrial Culture,” Cardiff University, <https://orca.cardiff.ac.uk/93157/1/Deerfield%20final%20PhD%20thesis%202016.pdf> sean!

I depart here from the stories of actual astronauts to discuss one high-profile image of an astronaut who, although she is not strictly real, nonetheless travels into actual outer space: Galactic Girl, the imaginary woman astronaut with which Virgin Galactic spacecraft are emblazoned. As I will show, the design of Virgin Galactic’s nose art raises issues of astronaut perspective, and especially of the gendered attributes of extra-terrestrial vision. There is a great deal more symbolic depth to the design of the 'Mothership' and Galactic Girl, which I will discuss in more detail in Chapter Seven. The name of the ‘Mothership’, VMS Eve, invokes the mythical mother of humanity, and it is also explicitly named for Richard Branson's own mother Evette. Galactic Girl's design is also based upon photos of Evette Branson in her youth.43 Penley and Casper and Moore, as I have mentioned and as I will further discuss in my next chapter, point to the overwhelming tendency within space science and applications to position women as reproducers and nurturers before all else, to which I would argue the discursive construction of Virgin Galactic endeavours is strongly linked.44 In the desert of New Mexico in 2008, Richard Branson's space tourism company Virgin Galactic unveiled two pioneering spacecraft: VMS Eve, a 'Mothership' launch vehicle, and the capsule Eve launches, VSS Enterprise. Eve and Enterprise are emblazoned with images of Galactic Girl, a reworking of the Alberto Vargas-inspired Scarlet Lady pin-up seen on Virgin Atlantic aircraft.45 Galactic Girl trades the former's red locks for a blonde ponytail improbably flowing from a bubble helmet, and the Union Jack for a flag bearing Virgin Galactic's enormous blue eye insignia.46 That massive eye is also painted across the undersides of both crafts, eerily substantiating the unique perspective afforded to the space traveller, and visibly invoking White’s concept of the 'overview effect'. Virgin Galactic's promotional materials are full of references to the spacefarer's vision, emphasising the size and placement of windows within the craft and highlighting quotations from astronauts about the experience of 'looking down on' the people of Earth.48 Yet while the monstrous Virgin eyes and the humans within gaze back upon Earth, Galactic Girl herself arches up toward the heavens, her eyes closed. This, I contend, aligns Galactic Girl with the broader discourse of women in space that I have discussed in the preceding sections. Virgin’s brand of space tourism is all about seeing, but their emblematic female astronaut does not possess her own perspective. She is there not to see, but to be seen.49 Galactic Girl, Gender, and Extra-Terrestrial Vision Galactic Girl is emblematic not only of Virgin Galactic itself, but also of many of the traditional, gendered understandings of vision and perspective which I argue are deeply embedded within astronautic discourse. Rose, drawing from Laura Mulvey’s foundational feminist theories of film and vision, argues that Western visual discourse implicitly positions woman as object, looked-at, and man as subject, looking in.50 This has important implications for geography and cartography, because, as Rose argues, these disciplines strongly privilege visual perspective.51 As I have discussed, and as in spatial theory, one of the most frequent topics throughout writing on outer space is that of looking back on Earth. This discourse is strongly represented in the public relations material from Virgin Galactic, as well as in many broader discussions of astronautics. White’s The Overview Effect, as I have mentioned, is one of the clearest examples of this. That Virgin Galactic’s visual brand and promotional material greatly emphasise the visual aspect of space tourism aligns them with this broader aspect of space culture.52 Importantly, both Virgin’s branding and White’s ‘overview effect’ concept focus entirely on the ability of the astronaut to look, even as Galactic Girl can only be looked at. Yet there is an aspect of Galactic Girl’s design that should prevent this very phenomenon. Were Galactic Girl’s helmet a real space helmet, it would be a primarily reflective surface. This has important implications for Galactic Girl which I discuss below, but I will first relate this to Debra Benita Shaw’s argument about the cultural role of the space suit in containing, representing, and yet confusing, the definition of the subject. Space Helmets and Vision In ‘Bodies Out of This World’, Shaw discusses confusion among astronauts after photographs of them in their helmets are inaccurately identified in the media, something which, due to the reflective nature of the space helmet’s outer coating, is a very common mistake. Shaw argues that the effect of this is to position the space suit itself as a symbol for a particular kind of heroic subjectivity, while simultaneously obscuring the individual astronauts themselves. Shaw writes: The suit, then, becomes synonymous with a set of values which refer to heroism and thus to the Cartesian (masculine) subject identified by the Proper Name but the Name itself becomes curiously disconnected from the individual to which it actually refers. 53 Symbolically, Shaw’s argument further supports my own contention that this figure of the (helmeted) astronaut can be read as an example of the ideal observer assumed in traditional scientific and spatial theories, as illustrated by Rose.54 Rose argues that, along with the master subject’s denial of his own corporeality, the subject’s body must function ‘as a neutral container of rationality’ without bodily dimension such as skin colour or gender.55 For the helmeted astronaut, this becomes a visual reality. Photographs of suited astronauts with their visors down show not the astronaut's face but a fish-eye view of their own outward gaze. I argue that the astronaut’s relationship to Rose’s concept of the possessor of the masculinist gaze is illustrated in that the astronaut can look out, but cannot be looked upon. The depiction of Galactic Girl, with her highly stylised space suit, is designed directly in contrast to this. With her transparent helmet and her closed eyes, Galactic Girl can be looked at but cannot look outside. This evokes traditional understandings of women's passivity and objectification; men as the possessors of the gaze, women as targets, as Rose discusses through Mulvey.56 While positioned as a symbol for actual space exploration, Galactic Girl’s portrayal sets her apart from the position of knowing subject. I wish to argue that the imagined Galactic Girl functions within the social context of space travel to speak to broader understandings of (real) women in space. That her design visually reproduces these tropes of masculine subjectivity is not incidental – it implicates the discursive field Rose and Kirby identify, of the exploratory subject of Earth, who is presumed to be male. The privileged, extra-terrestrial view of Earth is ascribed to the actual space traveller and represented in the giant overseeing eye inscribed on the underside of the Virgin spaceships, but it is not granted to the woman designed to represent the venture. I would argue that this speaks to the difficulty women astronauts cause, by troubling the presumed masculinity of the observational subject. As Penley argues, and as the stories of real women astronauts indicate, they are still seen as ‘out of place’ in this position. In this way, a woman occupying a space suit problematizes assumptions about who properly possesses the extraterrestrial gaze.

#### Episode two: Frontier

#### [Westworld/Firefly audio goes here I think]

#### The frontier isn’t closed. River asks us what we are in space, the Gunslinger dies? short circuits? falls? and Martin is alone. The 1AC is River and the Gunslinger and Martin, Firefly and Westworld, the cybernetic synthesis that blurs the socially constructed ontology of the “savage” other

-this tag needs work!

Banschbach 13. Sarah Banschbach (English professor at Texas Tech, PhD in English Literature, Masters from UT-PB), 2013, “Hi-Ho, Cyborg! Savages, Cyborgs, and Gender on the Science-Fiction Frontier” in “Contemporary Westerns,” edited by Andrew Patrick Nelson, I have the pdf [brackets are in the original] sean!

The United States is a country that has always looked westward for answers to political and social problems. Whether one is interested in the “Wild West” is irrelevant as the frontier pattern of expansion is ingrained in American culture. Though the West was officially “closed” in 1890, the saga of the cowboy, the Lone Ranger, the desperado, the settler, and the Indian lives on iconically in film and media. In more recent years these themes have been resurrected in science fiction, a genre that is no stranger to frontiers. Space and science are both considered the last frontiers of modern times and many films return to the history of the gunslinging West as a forecast of colonization on other planets. Though John Wayne’s West is the traditional movie depiction of the frontier, modern conceptions of the space and science frontier include the rough and tough lawlessness of the West but can also feature hallmarks of science fiction like aliens, robots, and cyborgs, robothuman hybrids. In the light of Donna Haraway’s seminal “A Cyborg Manifesto,” I examine what cyborgs tell us about these new frontiers of space and science by wedding her approach to the ideas of John Cawelti in order to guide an interpretation of the film Westworld (Michael Crichton, 1973) and the television series Firefly (2002) with its companion film Serenity (Joss Whedon, 2005). Focusing on how evolving conceptions of the positive and negative aspects of frontier cyborgs revise and resist the “John Wayne West” by questioning human power structures and morality, I claim that these new frontiers of space and science demand adherence to traditional Western motifs but that the science-fiction frontier also creates a technologically modified version of Cawelti’s savagery/civilization binary, which allows room for the resistance of cyborgs, especially female cyborgs, who, coded as sexual and maternal beings, resist the limitations of a purely technological mold and are the key to creating a lasting and working synthesis between binaries. In The Six-Gun Mystique Sequel Cawelti offers an extensive analysis of the Western, claiming that the genre is defined by three things: the setting, the types of characters, and the situation. 2 The setting includes not just geography but, even more importantly, the social and historical background of the time. He writes, The Western story is set at a certain moment in the development of American civilization, namely at that point when savagery and lawlessness are in decline before the advancing wave of law and order, but are still strong enough to pose a local and momentarily significant challenge. 3 Hence, the West is not just a place; it is a frame of mind and attitude. Though the geography gives a sense of place and sense of freedom, it is the social and political freedom that accompanies the new landscapes that is also appealing, for “the desert landscape of the West is seen as a terrain where individuals can escape from the past and the limits of tradition.” 4 However, maintaining traditions of personal integrity against the oppressive traditions of society is also part of the Western narrative. The characters of a Western are broken down into three camps: the townspeople/pioneers, which necessarily includes women; the hero, “the man with a gun” who “internalizes the conflict between savagery and civilization” and whose “personal honor and honor of the old wilderness” is the focal point of the story; and the savages who are “interchangeable between Indians and outlaws.” 5 The hero defends the townspeople and ultimately supports the town and “civilization,” while savages “usually have the capacity to live and move freely in the wilderness, [and have] mastery of the tools of violence and strong masculinity” as well as the propensity for pursuing “ruthless violence.” 6 One other vital aspect of the savage is the tendency toward madness since “both madness and savagery are forms of reaction against the lawful order of the town.” 7 Yet heroes and savages are both aligned with a strong “code of personal honor.” 8 Moreover, even though the hero defends the townspeople and ultimately supports the town and “civilization,” he is a character on the margins who “is something of an antihero to the self-made man and embodies strong feelings of hostility to the symbols and values of progress and success.” 9 Hi-Ho, Cyborg! 109 The situation or story line of the Western revolves around “the epic moment when society stands balanced against the savage wilderness.” 10 This relates back to place and setting and focuses on the conflict of the East and the West in the Western environment, also characterized as civilization against savagery or order against wildness. What is most important about this ritualized story is that it “affirmed the creation of America and explored not only what was gained but what was lost in the movement of American history.” 11 The romance of adventure is essential to the Western as well. 12 As the West closed and became a thing of the past, the space frontier opened up. Cawelti writes that “outer space can, of course, be treated as a frontier, and like the West in an earlier time, it is both a mythical landscape and a contemporary actuality.” 13 Fact and fiction find a place in the Western as well as in the science-fiction universe. On the science-fiction frontier, multicultural diversity and women play more active roles than they do in the Western. Carl Abbott states that “science fiction writers think historically when they envision path-dependent futures” since science fiction is about “the societal ramifications of change.” 14 Science-fiction and Western narratives have the similar motifs of expansion, new territory, homesteading, frontier environments, humans struggling with the forces of nature, “civilized” man contending with “natives” and “savages,” adventure, escape, possibility, and imperialism. Abbott points out that the West is important to an American understanding of the space frontier not only because of the motifs mentioned above, but also because the first wave of science-fiction films were shot in Western environments due to their strange, remote, and unfamiliar landscapes. 15 He cites President Kennedy as codifying space as the new Manifest Destiny for Americans when “he proclaimed that Americans stood ‘on the edge of a new frontier—the frontier of the 1960s—a frontier of unknown challenges and perils. . . . I am asking you to be new pioneers on that New Frontier.’” 16 With space exploration overtly linked with the Western mindset and with Western imagery, Cawelti’s concept of antithetical values clashing on a new frontier can easily provide both a narrative and interpretive framework for these new stories. As much as the science-fiction narrative draws from Western conventions, though, it also introduces the machine as a staple character. 17 How the hero interacts and interfaces with the machine becomes a new facet to be considered on two fronts. For one, in science fiction the machine is no longer subservient to humankind but rather moves toward equality or even superiority; and two, the machine enters the sci-fi narrative in the role of “other” or, relating back to the Western, as the “savage.” This new “savage” can be described in the same rhetoric as the Indian or outlaw as it is powerful in being unpredictable, is accepted by society as interesting and yet is held at arms’ length, incites a strange sense of pathos (think Roy Batty in Blade Runner), and has a strong (literal) personal code. And as with the original 110 Sarah Banschbach “savage,” the science-fiction hero must be able to recognize the potential of the machine and adapt/align himself to its forms in order to survive. However, as we will see, the initial masculinity associated with the “savage” in the Western will be questioned in the cyborg. The ultimate machine/human interface is the cyborg. Cyborgs are historically linked with the space frontier as the first instance of the term appears in the 1960 article “Cyborgs and Space” by Manfred E. Clynes and Nathan S. Kline. A cyborg’s purpose is to provide an “organizational system” in which mundane “problems are taken care of automatically and unconsciously, leaving man free to explore, to create, to think, and to feel.” 18 Further, a cyborg adapts “man to his environment, rather than vice versa.” 19 Through cyborgs, the space frontier is revised at the basic level of adaptation and cyborg science fictions allow “new technologies [to] have the potential to create new virtual worlds and transhuman beings.” 20 However, still in sync with traditional Western patterns, the cyborg is, at its inception on the space frontier, connected “to the rhetoric of colonization and conquest.” 21 Published in 1985, Haraway’s “A Cyborg Manifesto” creates a mythos for cyborg identity that is linked with this rhetoric of the space frontier. She views cyborgs as a fusion of “organism and machine” engaged in “a border war” over the “territories of production, reproduction, and imagination.” 22 Haraway writes that her “cyborg myth is about transgressed boundaries, potent fusions, and dangerous possibilities which progressive people might explore as one part of needed political work.” 23 Blurring boundaries of socially constructed ontologies, particularly in the realms of gender and race, is this political work of social revolution. Since dualities pose the possibility for dominance, such binaries must be removed and a new synthesis must take their place. Haraway looks for such a synthesis from science and technology because they are the “illegitimate” progeny of the current patriarchal society; because they reduce the world into a single language, the language of code; and because it is unclear “who makes and who is made in the relation between human and machine.” 24 A single language allows the reconstructing of identity without duality allowing for “disassembly, reassembly, investment, and exchange” while ambiguity of origin negates “universal” matrices and cycles.25 Cyborgs are the essence of this liminal reconstruction and “a cyborg world might be about lived social and bodily realities in which people are not afraid . . . of permanently partial identities and contradictory standpoints.” 26 Since “the cyborg looks to the past as well as the future” it is therefore “precisely this double nature that allows cyborg stories to be imbricated within cultural narratives while still wrenching them in a new direction.” 27 Wrenching narratives in a new direction is facilitated by the speculative world of science fiction, where the ramifications of the past, present, and future can be safely explored as societal values, morality, and power structures are examined. Due to the increasing integration of society with technology, dystopian, cautionary cyborg tales give way to more positive yet still instructive cyborg narratives. Early science-fiction works immediately identified women with the machine, such as Fritz Lang’s 1927 film Metropolis, but the traditional deleterious treatment of the “other” prevails. Though not exclusively dealing with women, the human domination of cyborgs in Westworld also fits this pattern. The negative aspects of the cyborg are the main focus of the film Westworld, which predates “A Cyborg Manifesto” by twelve years, while a slow progression or revealing of the positive aspects mentioned in Haraway’s manifesto is present in the later Firefly series as it investigates the transformative possibilities of the female and the machine. The following discussion of films evoking the Western genre, space frontiers, and (re)visionary cyborgs illuminates the shift of perspective in posthuman and cyborg evolution. Set in the not-too-distant-future, Michael Crichton’s film Westworld stars Yul Brynner as a gunslinger robot in a Wild West–themed amusement park. Brynner was chosen for this role because of his iconic cowboy role in The Magnificent Seven (John Sturges, 1960). In the film, the Delos Company’s amusement park has three branches: Romanworld, Medievalworld, and Westworld. For $1,000 a day, patrons of the park live and interact in a world populated by computer-controlled robots dressed and programmed for the respective time period. Appearing as perfect humanoids, the robots act as humans but may be used and abused with impunity by the patrons. Guests can live out their violent, lustful, or adventurous fantasies in a safe and historically authentic setting. As the intro to the film states, “Yes, the robots of Westworld are there to serve you and to give you the most unique vacation experience of your life.” Guests rave, “It’s the realest thing I’ve ever done! I mean that!” The attraction to Westworld is the childhood fantasy of cowboys and Indians and making one’s own rules. Treating the robots as nonhuman humans creates a scenario where, morally, anything goes. Because humans have the power in this situation yet do not understand how the nonhuman humans work, they abuse the cyborgs. Cawelti’s comments on the interaction between settlers and frontier “savages” are an apt comparison. The traditional Western concern of civilization versus the savage is present but is taken to a new level to incorporate society’s simultaneous fear of and desire for technology. Like Frontierland of Disneyland, which offers guests a nostalgic, sanitized experience of life in the Old West, the sci-fi Westworld represses “the legacies of the past and the dangers of the present that threaten the future.” 28 At least until the robots gain control. Iterated in the Firefly episode “Heart of Gold,” which explores a scenario similar to Westworld, control of technology allows control of one’s environment, often allowing the realm of fantasy to play out. The character Nandi states that playboy/tyrant Rance Burgess “keeps people living like this so he can play cowboy, be the one with the best toys. Turned this world into a gorram theme park.” 112 Sarah Banschbach The illusion of control in Westworld deteriorates due to the abuse and misunderstanding of the human interface with technology. As breakdowns in the robots become more frequent, control room scientists puzzle over the possible and probable causes of the malfunctions, with the head scientist suggesting that the breakdowns are spreading in a pattern similar to how infectious diseases affect human populations. The other scientists scoff at this idea, demonstrating their inability to acknowledge the humanoid component of the machines they have created. A concerned scientist explains that “these are highly complicated pieces of equipment almost as complicated as living organisms. In some cases, they’ve been designed by other computers. We don’t know exactly how they work.” Since the scientists do not know how the robots work, they cannot fathom the possibility that the cyborgs are gaining sentience and willpower. Nor can they foresee that the human abuse of technology could turn the robots into vengeful killers. As the main characters John Blane (James Brolin) and Peter Martin (Richard Benjamin) play out their sexual and violent fantasies in Westworld, they repeatedly cross paths with the black-clad Gunslinger (Brynner). In their first two encounters, the more effeminate and timid Martin is able to dispatch the Gunslinger in clichéd confrontations. But once the cyborg gains consciousness, the Gunslinger breaks from the script and shoots dead the macho robot-abuser Blane. Martin, who initially had moral qualms about using and even killing robots, flees from the untiring Gunslinger. In the meantime, Westworld’s technicians accidentally seal themselves inside the control room and run out of air, leaving the robots as the only survivors. In a chilling moment of role reversal, the vacationers in each of the park’s three worlds are massacred by the robots. Martin cannot shake the Gunslinger since he can read Martin’s heat signature. In accord with Cawelti’s observation that the hero can only defeat the savage by using his own tools against him, Martin can only defeat the Gunslinger by using a torch to set the cyborg avenger on fire. Martin exhibits disgust at this painful and prolonged act of killing and leaves before the Gunslinger’s collapse. What Martin does not count on is the tenacity of the robot who, as a charred carcass, sneaks up on Martin. In these final moments of the film, it seems that the cyborg refuses to be killed and insists upon giving up his life on his own. Its charred mechanical fingers reach out to Martin before its whole body topples off the stairs. Martin is left alone in the theme park with no way of contacting the outside world. As the viewer sees from aerial takes of the park, he is alone in the middle of a theme park situated in the midst of a genuine Western wilderness. Westworld is about to become real for Martin if he wants to return home to Chicago. In this film, the terrors of cyborg technology are exposed but also challenged because the terror is brought about by the misunderstanding, abuse, and unequal treatment of technology and cyborgs. Who is really to blame for the massacre? Those in power who created an amoral vacation spot founded upon exploitation, or those who, though robots, demanded proper treatment? The responsible use of technology is explored here in Westworld, as the synthesis of the open-ended world of sci-fi and the relatable world of the American West dovetail to create a revised paradigm to probe the issues of power, morality, and humanity. Though Westworld uses cyborgs and microcosms to discuss serious topics, it does not challenge the phallocentric constructions of the Western genre. The Western paradigm remains intact since the focus of the film remains on the interactions of men. Female cyborgs make an appearance only as sexual objects, such as when Martin and Blane visit a brothel where the conventional script of the “powerful” madam vs. the macho patron plays out. Many feminist critics hypothesize that for cyborgs to achieve any kind of resistance, there needs to be a predilection for the female gender. Ann Balsamo proposes that male cyborgs do not challenge the status quo and in fact tend more toward support of dualities because the stereotype of the rational masculine mind is already aligned with science and technology. 29 Female cyborgs, however, are “coded as emotional, sexual, and often, naturally maternal. It is these very characteristics which more radically challenge the notion of an organic-mechanical hybrid. Female cyborgs embody cultural contradictions which strain the technological imagination.” 30 Though Westworld falls into a support of dualities, there is a foretaste of Haraway’s and Balsamo’s future in the first hints that something is amiss with the cyborgs: a female robot falls over and will not respond, a rattlesnake bites Blane (snakes being a longstanding symbol of sex; hence sex striking back), and a Medieval maiden resists the forceful advances of a patron contrary to her programming. As Haraway suggests, “Cyborg writing is about the power to survive, not on the basis of original innocence, but on the basis of seizing the tools to mark the world that marked them as other.” 31 In Westworld the male Gunslinger attempts this challenge but is defeated because, as male, he does not challenge stereotypes enough. He is still acting according to the rules of cultural programming. Such will not be the case with the more contemporary female cyborg in Firefly who proves Balsamo’s point that the contradictions of the female allow her to successfully subvert dominating systems. In the context of the Western genre in which women are generally relegated to sexual objects or to the role of domesticating the hero, cyborg science-fiction narratives of space frontiers allow female cyborgs to resist the closing of the frontier, which could lead to limiting binaries once again. Female cyborgs, embodying as they do the otherness of race and gender, offer a most profound revision of the Western genre. The positive aspects of the frontier West and Manifest Destiny are promoted by the female cyborg while the negative aspects are acknowledged and revised. This possibility is exemplified in the character River Tam (Summer Glau) in the Westernthemed science-fiction TV series Firefly and its companion film, Serenity. 114 Sarah Banschbach Set aboard the Firefly class spaceship Serenity in the year 2517 in a newly discovered star system and following a civil war in which settlers of new planets fought for self-government against the Alliance (a fusion of China and the United States), the show is about, as director Joss Whedon claims, “nine people looking into the blackness of space and seeing nine different things.” The diverse crew of different races and genders smuggle contraband goods through the galaxy but try to remain on the border planets where the Western and pioneer lifestyle allows for more independence. The captain of the ship, Malcolm “Mal” Reynolds (Nathan Fillion), has one goal: to keep flying. This series laden with more-than-overt Western themes opens with pilot Hoban “Wash” Washburne (Alan Tudyk) speaking for his two toy dinosaurs in a playful (but very knowingly predictable) “imperialist versus savage” dialogue: “Yes . . . yes. This is a fertile land, and we will thrive. We will rule over all this land, and we will call it . . . This Land.” “I think we should call it your grave!” “Ah! Curse your sudden but inevitable betrayal!” The pivotal character on board the ship is River Tam, a brilliant teenage girl on the run from the Alliance. Mal unknowingly allows her on his ship (she is in cryogenic stasis), but soon takes an interest because the Alliance is tracking her. Mal, a former commander for the Browncoats who were on the losing side of the civil war, would do anything to undermine or just plain irritate the Alliance. Over the course of the series, River’s backstory unravels and her real nature is revealed to herself and to the viewer. Throughout the series, the viewer is told that River was tricked into attending a government school, where she was held captive and endured years of testing by the authoritarian Alliance to strip her amygdala in order to heighten her psychic powers. What is not revealed until the film Serenity is that these tests were intended to turn River into a weapon. 32 The Alliance took a human, commodified her, and turned her into a weapon controllable by computer code. River thus becomes a psychic cyborg weapon. She is unaware of this, however, and suffers from “paranoid schizophrenia,” according to her physician brother, Simon. Though River has a past, the first time we see her is in a cryogenic box. She is naked and in the fetal position and her “new birth” as a psychic cyborg takes place without father or mother in a spaceship on the frontiers of space. She is coveted by the Alliance for her qualities as a cyborg, not as a human. River and the Reavers, a group of animalistic scavengers who appear at inopportune moments throughout the series, are aligned not only through Hi-Ho, Cyborg! 115 alliteration but also through Cawelti’s theme of savage madness. Both are creations of the Alliance and have a different sense of embodiment (Reavers mutilate themselves and sew their victims’ skins into their clothing). River is initially unable to control her body, like the Reavers who “ain’t men—or they forgot how to be,” but through reconnecting with humans, she is able to create a new identity. It takes a long time for the Serenity crew to accept River. Even the affable mechanic Kaylee is skeptical of River because of her unexpected abilities: “Not nobody can shoot like that that’s a person.” In the series, River constantly questions her identity as a human while becoming aware of her cyborg capabilities. She asks Simon, “What am I?” (my emphasis) and states, “I hate the bits. The bits that stay down. And I work. I function like I’m a girl. I hate it because I know it’ll go away. The sun goes dark and chaos is come again. Bits. Fluid.” Due to her cyborg nature, River’s perception of embodiment is different from the rest of the crew and she is never bounded by her surroundings even as she acknowledges them. Even her name is in motion and is fluid. In the episode “Safe,” River “communes” with the cargo of cattle Mal intends to sell on one of the border planets. She says, “They weren’t cows inside. They were waiting to be, but they forgot. Now they see sky, and they remember what they are.” For her, borders and boundaries don’t exist except in the mind. In the episode “Bushwhacked,” she and Simon don spacesuits and cling to the outside of the ship Serenity while the Alliance searches for them within. Simon is terrified to look out to space, but River revels in the freedom of that openness. Her later assertion “Also . . . I can kill you with my brain” gives hired gun Jayne Cobb pause since even he can recognize she is more than just a girl. The episode “Objects in Space,” the series finale, particularly stresses River’s embodiment. It begins with the camera moving through the internal “organs” of the ship Serenity before focusing on the sleeping River, thus directly associating her with a mechanic/organic hybrid. This opening sequence concludes with River dream-walking through the ship and inhabiting the minds of the crew. She picks up a leafy stick lying on the floor and says, “It’s just an object. It doesn’t mean what you think”; but she wakes up to the crew shouting at her for holding a gun and pointing it around. What she perceived as organic in her dream state was actually machine. Mal asks if she understands how dangerous a gun is and River answers, speaking of herself in the third person, “She understands. She doesn’t comprehend,” raising a question of the significance of objects as they are perceived in current systems. Based on these equivocal associations, she makes what seem to be viable statements later in this episode when she hides from a bounty hunter and speaks through Serenity’s intercom, claiming to be “incorporeally possessing” the spaceship and that (speaking of herself in third person) “she melted. Melted away.” Because of the opening overtones, never 116 Sarah Banschbach for a moment does the viewer, or even the crew for that matter, doubt that River actually became the ship Serenity. By the time River is presented in the film Serenity, she has become a member of the crew and participates in jobs where her psychic sensibilities warn the crew of danger. However, her further abilities as weapon are suddenly discovered in a border planet bar when an Alliance code is broadcast over the entertainment system and River becomes a wild killing machine. Mal exclaims to Simon: “You had a gorram time bomb living with us! Who we gonna find in there when she wakes up? The girl, or the weapon?” Though River suffers the setback of discovering she is controllable by computer code, by the climax of the film Serenity she takes control in the standoff between the crew and the Reavers and single-handedly vanquishes the killers. She is only able to accomplish this heroic act by becoming, like the Western hero, analogous to the savage, yet she maintains personal integrity as she controls herself instead of being controlled by a computer. By showing this kind of power over and for her cyborg self, she proves she is capable of becoming the next pilot of a ship of space cowboys. River reworks the Western theme by showing the negative aspects of centralized power and expansion. Constant are the references to colonization and the moral failures of the Alliance to treat people as humans in their efforts to create “a better world.” The only place River can create her own identity is by staying on the frontier where, if not “meddled” with, she discovers the truth about herself and the moral component of her powers. By accepting her cyborg mind and appropriately interfacing it with her human body, River becomes her own source of power and helps bring about justice for the victims of the Alliance’s human experimentation on the planet Miranda. At the end of Serenity, it does not matter that River is a “ninety-pound girl”; what matters is how she resists categorical classification to the benefit of the crew. Hence River, in the blend of space and the West, takes on all aspects of “other” and “savage” by virtue of being female and yet cyborg and creates new, empowering possibilities of embodiment to create her own story free of stereotypes. To reiterate Haraway again, “Cyborg writing is about the power to survive, not on the basis of original innocence, but on the basis of seizing the tools to mark the world that marked them as other.” 33 Bruce Bethke notes in his article “Cut ’Em Off at the Horsehead Nebula!” that “only in the West was what you did of more immediate importance than where you came from.” 34 With the case of cyborgs in the Western genre, this is a crucial statement. Cyborgs do not have a past; what they do defines them. From Westworld to Serenity, there has been a vast change in perception of what cyborgs do. Cyborgs, then, find a place in the Western genre, but they resist the stereotypes of “savage” and “other” by refusing to close borders and be only one thing. Synthesis or compromise might be achieved, but never closure. Since the West is what Americans know of frontiers, the Western genre and expectations are applicable to the space frontier since “the frontier West is a place of rebirth, of shedding the constraints of the past and civilization and becoming American.” 35 Science fiction’s use of Western and frontier motifs allows Americans the nostalgia of the good ol’ days of American optimism and manliness but also asks readers or viewers to reconsider Manifest Destiny and reconsider history so that past mistakes are not repeated.36 Cyborgs ask us to reconsider the entitlement approach humans take toward organisms different from yet created by humans. These films show how cyborgs, and especially female cyborgs, are able to resist categories of genre and expectation to achieve a fusion of cybernetics and organicism to prevent frontiers of space, time, embodiment, and narrative from closing.

#### Episode three: Knowledge, The Agencement, and The Cthulucene

#### The cyborgian performativity of the 1AC ruptures the molar representations that overdetermine status quo ontologies – a focus on form and performance is necessary to understand the epistemological impact of speeches. Only the 1AC’s assemblage can explain the interzones of class, control, and violence. The role of the ballot is to endorse the best affective orientation towards the cyborg.

For spec purposes:

* The pre/post-fiat distinction makes no sense, we’ve made a claim about the resolutions relations to shaping subjectivities
* The role of the ballot uplayers theory or at least controls the direction of what theory impacts matter
* Determining a winner is based off of the flow. We think that performance and debate are intertwined which means that separating the two makes no sense
* If you want anything else, ask in cross, we’ve done more than we should have to.

Puar 12. Jasbir Puar (Jasbir K. Puar is a U.S.-based queer theorist and Professor and Graduate Director of Women’s and Gender Studies at Rutgers University, where she has been a faculty member since 2000. Her most recent book is The Right to Maim: Debility, Capacity, Disability), 2012, “‘I would rather be a cyborg than a goddess’: Becoming-Intersectional in Assemblage Theory,” Transversal Texts, I have the pdf. sean!

Haraway has arguably been the most influential of this group. In a leading text from this literature she famously stated, as the very last line in her groundbreaking 1985 essay “A Manifesto for Cyborgs” that she would rather be a cyborg than a goddess, favoring the postmodern technologized figure of techno-human over the reclamation of a racialized, matriarchal past, thus implicitly invoking this binary between intersectionality and assemblage (Haraway 1985). Several theorists have critiqued Haraway’s use of the trope of “woman of color” to denote a cyborg par excellence, including Chela Sandoval and Schueller (who has argued that women of color function as a prosthetic to the cyborg myth, which, as I point out earlier, is not unlike how WOC function in relation to intersectionality) (Sandoval 2000; Schueller 2005). Even though Haraway’s cyborgs are meant to undermine binaries—of humans and animals, of humans and machines, and of the organic and inorganic—a cyborg actually inhabits the intersection of body and technology. Dianne Currier writes: “In the construction of a cyborg, technologies are added to impact upon, and at some point intersect with a discrete, non-technological ‘body.’ . . . Thus, insofar as the hybrid cyborg is forged in the intermeshing of technology with a body, in a process of addition, it leaves largely intact those two categories—(human) body and technology—that preceded the conjunction.” Currier argues that despite intending otherwise, the theorization of cyborgs winds up unwittingly “reinscribing the cyborg into the binary logic of identity which Haraway hopes to circumvent” (Currier 2003, 323). Haraway does not actually approach a human/animal/machine nexus, though more recent theorizations of the nature/ culture divide, by Luciana Parisi for example, demarcate the biophysical, the biocultural, and the biodigital (Parisi 2004, 12). Still, the question of how the body is materialized, rather than what the body signifies, is the dominant one in this literature. “Assemblage” is actually an awkward translation of the French term agencement. The original term in Deleuze and Guattari’s work is not the French word assemblage, but agencement, a term that means design, layout, organization, arrangement, and relations—the focus being not on content but on relations, relations of patterns (Phillips 2006, 108). In agencement, as John Phillips explains, specific connections with other concepts is precisely what gives them their meaning. Concepts do not prescribe relations, nor do they exist prior to them; rather, relations of force, connection, resonance, and patterning give rise to concepts. As Phillips writes, the priority is neither to “the state of affairs [what one might call essence] nor the statement [enunciation or expression of that essence] but rather of their connection, which implies the production of a sense that exceeds them and of which, transformed, they now form parts” (ibid., 108). The French and English definitions of assemblage, however, both refer to a collection of things, a combination of items and the fact of assembling. The problematic that haunts this traversal from French theoretical production to U.S. academic usage is about the generative effects of this “mistranslation.” Phillips argues that the enunciation of agencement as assemblage might be “justified as a further event of agencement (assemblage) were it not for the tendency of discourses of knowledge to operate as statements about states of affairs” (ibid., 109). One productive way of approaching this continental impasse would be to ask not necessarily what assemblages are, but rather, what assemblages do. What does assemblage as a conceptual frame do, and what does their theoretical deployment as such do? What is a practice of agencement? For current purposes, assemblages are interesting because they de-privilege the human body as a discrete organic thing. As Haraway notes, the body does not end at the skin. We leave traces of our DNA everywhere we go, we live with other bodies within us, microbes and bacteria, we are enmeshed in forces, affects, energies, we are composites of information. Assemblages do not privilege bodies as human, nor as residing within a human animal/nonhuman animal binary. Along with a de-exceptionalizing of human bodies, multiple forms of matter can be bodies—bodies of water, cities, institutions, and so on. Matter is an actor. Following Karen Barad on her theory of performative metaphysics, matter is not a “thing” but a doing. In particular, Barad challenges dominant notions of performativity that operate through an implicit distinction between signification and that which is signified, stating that matter does not materialize through signification alone. Writes Barad: A performative understanding of discursive practices challenges the representationalist belief in the power of words to represent preexisting things. Performativity, properly construed, is not an invitation to turn everything (including material bodies) into words; on the contrary, performativity is precisely a contestation of the excessive power granted to language to determine what is real. Hence, in ironic contrast to the monism that takes language to be the stuff of reality, performativity is actually a contestation of the unexamined habits of mind that grant language and other forms of representation more power in determining our ontologies than they deserve (Barad 2003, 802).[10] Barad’s is a posthumanist framing that questions the boundaries between human and nonhuman, matter and discourse, and interrogates the practices through which these boundaries are constituted, stabilized, and destabilized. Signification is only one element of many that give a substance both meaning and capacity. In his book A New Philosophy of Society: Assemblage Theory and Social Complexity, Manuel DeLanda undertakes the radical move to “make language last” (DeLanda 2006, 16). In this post-poststructuralist framing, essentialism, which is usually posited as the opposite of social constructionism, is now placed squarely within the realms of signification and language, what DeLanda and others have called “linguistic essentialism.” Karen Barad writes: “Language has been granted too much power. The linguistic turn, the semiotic turn, the interpretative turn, the cultural turn; it seems that at every turn lately every ‘thing’ is turned into language or some other form of cultural representation. . . . There is an important sense in which the only thing that does not seem to matter anymore is matter” (Barad 2003, 801). Categories—race, gender, sexuality—are considered events, actions, and encounters between bodies, rather than simply entities and attributes of subjects. Situated along a “vertical and horizontal axis,” assemblages come into existence within processes of deterritorialization and reterritorialization. In A Thousand Plateaus, Deleuze and Guattari problematize a model that produces a constant in order to establish its variations. Instead, they argue, assemblages foreground no constants but rather “variation to variation” and hence the event-ness of identity (Deleuze and Guattari 1987). DeLanda thus argues that race and gender are situated as attributes only within a study of “the pattern of recurring links, as well as the properties of those links” (DeLanda 2006, 56). Using the notion of assemblage (note the translation of agencement as “arrangement” here), Guattari elaborates the limits of “molar” categories such as class: Take the notion of class, or the class struggle. It implies that there are perfectly delimited sociological objects: bourgeoisie, proletariat, aristocracy. . . . But these entities become hazy in the many interzones, the intersections of the petite bourgeoisie, the aristocratic bourgeoisie, the aristocracy of the proletariat, the lumpenproletariat, the nonguaranteed elite. . . . The result: an indeterminacy that prevents the social field from being mapped out in a clear and distinct way, and which undermines militant practice. Now the notion of arrangement can be useful here, because it shows that social entities are not made up of bipolar oppositions. Complex arrangements place parameters like race, sex, age, nationality, etc., into relief. Interactive crossings imply other kinds of logic than that of two-by-two class oppositions. Importing this notion of arrangement to the social field isn’t just a gratuitous theoretical subtlety. But it might help to configure the situation, to come up with cartographies capable of identifying and eluding certain simplistic conceptions concerning class struggle. (Guattari 2009, 26)

#### Knowledge is not objective fact, but rather constructed by the ideology of capital – the 1AC interpellates the discourses of power, becoming aware of the relationship to the other. This is an epistemological question that must come prior – everything you think you know about power is necessarily imbricated in the social fabric we exist within

Huston 11. Adam Huston (M.A. philosophy & religion – California Institute of Integral Studies), April 4, 2011, “Donna Haraway Diffracted: Interpellation, the Philosophy of Science and Modest Witnessing,” <https://iamadam.org/2011/04/04/donna-haraway-diffracted-interpellation-the-philosophy-of-science-and-modest-witnessing/> sean!

Interpellation is an incredibly provocative concept. A theory flowing from Althusser through Haraway to me, it considers how, “ideology constitutes its subjects out of concrete individuals by hailing them…interpellation occurs when a subject, constituted in the very act, recognizes or misrecognizes itself in the address of a discourse.”[2] I claim I am experiencing interpellation all the time. I am constituted by my subject positions: white, male, heterosexual, middle class, Christian, able-bodied – even beautiful, from the US – even powerful, and thoroughly educated. Some of my subject positions speak louder than the others; some speak before I’ve spoken; I am bound by all them – called out, hailed: interpellated. And even those subject positions are marginal when compared to what they equal in mass – I am more than the sum of my parts, more than those fragmented subjectivities. I’ll return to the demographics of self in a moment because they do not suffice to explain the full creativity of Althusser’s theory. Interpellation isn’t only about excavating the subject for the subject’s sake but more so about understanding how ideology lives and functions for some worlds and not others. Contained within Haraway’s book, Modest\_Witness, is Althusser’s example of interpellation which is worth quoting in its entirety: Althusser used the example of the policemen calling out, “Hey, you!” If I turned my head, I am a subject in that discourse of law and order; and so I am subject to a powerful formation. How I mis/recognize myself – will I be harassed by a dangerous armed individual with the legal power to invade my person and my community; will I be reassured that the established disorder is in well-armed hands; will I be arrested for a crime I too acknowledge as a violation; or will I see an alert member of a democratic community doing rotating police work? – speaks volumes both about the unequal positioning of subjects in discourse and about different worlds that might have a chance to exist. Althusser’s example provides that unfamiliar orientation, where I discover I am not alone – the foundation of ethical relationality and of politics. I am shaped by the ‘other’ both historical forces and the multitude of bodies with whom I share space. Attentiveness to ideology as it functions through interpellation becomes a work of responsibility. It requires attentiveness to structures of history that constitute the present in order to change it – to push it towards compassion. Becoming ‘aware’ is only marginally about fulfilling the liberal white dream of self-actualization, where everyone is ‘human’ and accepted; where the individual subject becomes the object of value worthy of investment and ‘integration’. Becoming ‘aware’ practices empathizing with the multiple positions both the subject and the context can inhabit, growing familiar with the unequal knowledge/power configurations that allow some worlds to live and force others to convert or parish and the discovery that few voices count, few histories are written, indeed, even the objects to study are always already – interpellated. Interpellation functions powerfully within the discourses of demographics. Returning again to the example of my body: my body signifies utter privilege – a body of global secular dominance, I fit the ‘universal’ subject. My body is an ‘object’ which shows up to count, research, map, organize and market – I am/become use-value. Within the second Christian millennium becoming the sum of my parts means fulfilling the liberal political order without remainder or retribution, counter-memory or critical discourse. Plug me in with out remorse because I have no memory. I am the fulfillment of both genetics and human reason pursuing perfection – never-mind legacies of violence, grief and mourning… we have better medicine, mobile labor, global capital and DuPont: “Building Better Worlds through Science.” The political power of interpellation goes much deeper now. Wielding responsible action out of theoretical concepts such as interpellation has occupied a central position in post-colonial and subaltern theory for some time. The relationship between theory and practice is still birthing new forms of consciousness. For example, I am interpellated in more than the dominant demographics that social science has developed over the last few hundred years – becoming the sum of my parts is always, already more than the quantified and qualified demographics I fulfill. This body, this subject, is also interpellated out of deep history, deep time – one that spans not only the formations of life on Earth but also the composition of the cosmos. A subject of stars, my DNA binds me to a history of organic evolution and constitutes living consciousness. Much more recently in the course of biotic time an envelope of human powers developed to unify productivity and purpose across semiotic-material landscapes. The possibilities of using a creative concept such as ‘interpellation’ expand beyond enlightenment reason to include intuitive leaps that birth different realities. Thinking the play of erstwhile superstitious concepts such as magic and myth and cutting the edge of biological determinism with theories like morphic resonance,[3] new contributions are often added to the possibility of understanding links between theory and practice, freedom and responsibility, the human and the divine. It is vital to sail our imagination toward post-enlightenment reason, counter-narratives and contested knowledge. Becoming the ‘modest witness’ of my own subject position requires provocative theories like Althusser’s “interpellation.” In order to wield the creative power of such concepts they must be loosed from the confines of modern convention. The concept helps the thinker think ideology but even the concept itself is ‘interpellated’ out of a world where ideology is another interconnected signifier – unissued and passing. I am moving towards thinking institutional figures and body politics – its semiotic-material relationality amidst cities and subjectivies. But first, in pursuit of free space to play with the politics of interpellation – of figuration and modest witnessing – thinking must critique bounded ideas, explore zones that will buffer the resistance against thinking new thoughts. I hope other life formations have a chance to live. In the next section the myth of certainty will be exposed to marginal praise and necessary critique. A Buffer to the Tyranny of Certainty Knowledge is better when it is wise and humble – call me a philosopher! Entertaining the buffers and bumpers that provide zones where wisdom might stand at the side of technoscience might be the most important work of the century. The purpose is to expose the tyranny of certainty to scrutiny, to suggest ‘other’ readings are possible that might satisfy more dimensions of the inter-experience we share and to extend the survival of our planetary era. The science of certainty, like every other human phenomenon, underwent a process of unfolding – at first its historical links can be readily traced, but its history eventually refracts back into an endless spectrum of events that make it like all other entities – traceless.[4] Despite the evolution of empiricism, mathematics, experimentation, and the secular liberal rationality, the Western culture of the past 500 years has been preoccupied by the most powerfully functioning myth ever formulated.[5] It colors interpretation while at the same time functions to suppress critical reflection. Indeed, Thomas Kuhn, goes to great lengths in demonstrating how scientific paradigms develop and shift. The whole of his work on the subject: The Structures of Scientific Revolutions, makes clear the point that, …historians (of science) confront growing difficulties in distinguishing the ‘scientific’ component of past observation and belief from what their predecessors had readily labeled ‘error’ and ‘superstition.’ The more carefully they study, say, Aristotelian dynamics, phlogistic chemistry, or caloric thermodynamics, the more certain they feel that those once current views of nature were, as a whole, neither less scientific nor more the product of human idiosyncrasy than those current today. If these out-of-date beliefs are to be called myths, then myths can be produced by the same sorts of methods and held for the same sorts of reasons that now lead to scientific knowledge.[6] Spirits do speak. It is important to recognize that the ‘authority’ given to ‘scientific rigor’ participates in the same mythical consciousness as did the ‘authority’ of 13th century theologians in Medieval Europe or the ‘authority’ of the primordial mythological sensibility captured in the epic Homeric poems the Iliad and Odyssey.[7] The technoscience mode of consciousness has become the most powerful mythos in our planetary era. Presently, technoscience is producing knowledge and machinery whose authority is practically non-negotiable. The confidence of technoscience culture to reach the heavens, secure labor and resources, improve health and speed, even fulfill moral imperatives provides this age with radical optimism in the future. Myths are both magnetic and magnificent; they occupy a space of religification and evangelization, where to be in critical relationship to scientific principles constitutes a position close to blasphemy. It is an understatement to remind the reader that the age of enlightenment was finished with modesty. Still, it is important, if not to worship, to make sure praise is given where praise is due. The Enlightenment – its power and success – is impressive. It was true that through rigor, experimentation, and the willingness to refine knowledge through mutual confirmation that our species could build foundations – knowledge/power would grow and yield great fruit through hard work. The heights of human engineering still climb and inspire. In an era that has brought a global awareness to humanity for the first time, when the planet Earth with all its inhabitants can be seen in its entirety in cosmic space as the single celestial body that it is, and when the universe has been revealed as a creative vastness expanding through millions of galaxies and billions of years of cosmic evolution from the big bang to the present, the collective consciousness now emerging recognizes as was never before possible that all participate in a single enormous history. At the same time, that history, for humanity and the Earth community, has reached a stage of rapidly deepening crisis and peril.[8] The blatant reification of mathematics, statistics, reductionism, and quantitative measurement has lead to the abstraction of a particular world torn away from the full presentational expression of concrete reality – of daily experience. “Such an abstraction arises from the growth of selective emphasis. It endows human life with three gifts, namely, an approach to accuracy, a sense of the qualitative differentiation of external activities, a neglect of essential connections.”[9] As technoscience increases its power, it looses sight of the results of its actions in a world of relationality. This mode of relation facilitates action that insists upon a ‘progress’ without ever considering that which is sacrificed for the progress; in the obsession with growth/addition/development a whole culture has lost the critical ability to subtract the difference that is annihilated in pursuit of ‘additive’ change. Let my critique not hinder the potential of future discovery, but be a modest witness that calls forth memories of compassion, injections of wisdom, and insists that it was only a recent discovery that all endeavors toward knowledge were and still are bound to the pursuit of wealth and the access to material and markets – thank you Karl Marx! In an implicated and globally dependent world the (contested) innocence science once operated within has eroded. Capitalism and its military-industrial growth complex do produce some worlds and not others. The growth of any significant power adheres toward arcs of increase and decrease – the science and certainty of our age is no exception. I am suggesting that only a serious relationship with humility and wisdom – calling forth the divine Sophia – will offer cause for hope against an increasingly mounting systemic crisis. Falling just short of claiming divine feminine status in this essay, Donna Haraway’s voice is a comforting, correcting presence that joins forces with another feminist philosopher’s of science, Sandra Harding, to rethink potential trajectories of technoscience. Harding, via Haraway’s book Modest\_Witness, insists on arguing for what she calls “strong objectivity” to replace and refine the standards that show up legitimating some facts and not others in the domain of scientific knowledge. By “strong objectivity” Harding is insisting that science admit that culture (ideology) plays as large a roll in shaping scientific research as determining ‘fact’ and methods; That “a stronger, more adequate notion of objectivity would require methods for systematically examining all of the social values shaping a particular research process…”[10] Haraway supports Harding’s claims that critical reflexivity must be a part of the continuing practice of science. Building buffer zones, where science meets its limits and Lady Wisdom has the opportunity to have a voice is a difficult matter. ‘Objectivity’ must finally admit that its existence is bound to relationality. As Bruno Latour goes to great lengths to remind us in his work, Science in Action – that the construction of facts is a collective process; that all knowledge must be witnessed or it passes into the void; infused with Haraway’s rigor we go further to insist that issues of race, class, gender, sex, nationality, religion – in short – culture – that culture shapes technoscience. Attempting to fuse practices of democracy and relationship to situated knowledges – cultures of value – redefines the possibilities of technoscience while at the same time admitting that, “Nothing comes without its world…”[11]

#### In an era of mass extinction, we risk losing touch with the world – the 1AC’s cyborg embraces an ethic of staying with the world that necessitates kinship and a fundamental understanding of our relationalities

Haraway 16. Donna Haraway (Donna J. Haraway is an American Professor Emerita in the History of Consciousness Department and Feminist Studies Department at the University of California, Santa Cruz, United States. She’s written tons of cool stuff), 2016, “Staying with the Trouble: Making Kin in the Cthulucene,” Duke University Press, I have the pdf, sean!

It matters what thoughts think thoughts. It matters what knowledges know knowledges. It matters what relations relate relations. It matters what worlds world worlds. It matters what stories tell stories. Paintings by Baila Goldenthal are eloquent testimony to this mattering.17 What is it to surrender the capacity to think? These times called the Anthropocene are times of multispecies, including human, urgency: of great mass death and extinction; of onrushing disasters, whose unpredictable specificities are foolishly taken as unknowability itself; of refusing to know and to cultivate the capacity of response-ability; of refusing to be present in and to onrushing catastrophe in time; of unprecedented looking away. Surely, to say “unprecedented” in view of the realities of the last centuries is to say something almost unimaginable. How can we think in times of urgencies without the self-indulgent and self-fulfilling myths of apocalypse, when every fiber of our being is interlaced, even complicit, in the webs of processes that must somehow be engaged and repatterned? Recursively, whether we asked for it or not, the pattern is in our hands. The answer to the trust of the held-out hand: think we must. Instructed by Valerie Hartouni, I turn to Hannah Arendt’s analysis of the Nazi war criminal Adolf Eichmann’s inability to think. In that surrender of thinking lay the “banality of evil” of the particular sort that could make the disaster of the Anthropocene, with its ramped-up genocides and speciescides, come true.18 This outcome is still at stake; think we must; we must think! In Hartouni’s reading, Arendt insisted that thought was profoundly different from what we might call disciplinary knowledge or science rooted in evidence, or the sorting of truth and belief or fact and opinion or good and bad. Thinking, in Arendt’s sense, is not a process for evaluating information and argument, for being right or wrong, for judging oneself or others to be in truth or error. All of that is important, but not what Arendt had to say about the evil of thoughtlessness that I want to bring into the question of the geohistorical conjuncture being called the Anthropocene. Arendt witnessed in Eichmann not an incomprehensible monster, but something much more terrifying—she saw commonplace thoughtlessness. That is, here was a human being unable to make present to himself what was absent, what was not himself, what the world in its sheer notone-selfness is and what claims-to-be inhere in not-oneself. Here was someone who could not be a wayfarer, could not entangle, could not track the lines of living and dying, could not cultivate response-ability, could not make present to itself what it is doing, could not live in consequences or with consequence, could not compost. Function mattered, duty mattered, but the world did not matter for Eichmann. The world does not matter in ordinary thoughtlessness. The hollowed-out spaces are all filled with assessing information, determining friends and enemies, and doing busy jobs; negativity, the hollowing out of such positivity, is missed, an astonishing abandonment of thinking.19 This quality was not an emotional lack, a lack of compassion, although surely that was true of Eichmann, but a deeper surrender to what I would call immateriality, inconsequentiality, or, in Arendt’s and also my idiom, thoughtlessness. Eichmann was astralized right out of the muddle of thinking into the practice of business as usual no matter what. There was no way the world could become for Eichmann and his heirs—us?—a “matter of care.”20 The result was active participation in genocide. The anthropologist, feminist, cultural theorist, storyteller, and connoisseur of the tissues of heterogeneous capitalism, globalism, traveling worlds, and local places Anna Tsing examines the “arts of living on a damaged planet,”21 or, in the subtitle of her book, “the possibility of life in Capitalist ruins.” She performs thinking of a kind that must be cultivated in the all-too-ordinary urgencies of onrushing multispecies extinctions, genocides, immiserations, and exterminations. I name these things urgencies rather than emergencies because the latter word connotes something approaching apocalypse and its mythologies. Urgencies have other temporalities, and these times are ours. These are the times we must think; these are the times of urgencies that need stories. Following matsutake mushrooms in their fulminating assemblages of Japanese, Americans, Chinese, Koreans, Hmong, Lao, Mexicans, fungal spores and mats, oak and pine trees, mycorrhizal symbioses, pickers, buyers, shippers, restaurateurs, diners, businessmen, scientists, foresters, dna sequencers and their changing species, and much more, Tsing practices sympoietics in edgy times. Refusing either to look away or to reduce the earth’s urgency to an abstract system of causative destruction, such as a Human Species Act or undifferentiated Capitalism, Tsing argues that precarity—failure of the lying promises of Modern Progress— characterizes the lives and deaths of all terran critters in these times. She looks for the eruptions of unexpected liveliness and the contaminated and nondeterministic, unfinished, ongoing practices of living in the ruins. She performs the force of stories; she shows in the flesh how it matters which stories tell stories as a practice of caring and thinking. “If a rush of troubled stories is the best way to tell contaminated diversity, then it’s time to make that rush part of our knowledge practices . . . Matsutake’s willingness to emerge in blasted landscapes allows us to explore the ruins that have become our collective home. To follow matsutake guides us to possibilities of coexistence within environmental disturbance. This is not an excuse for further human damage. Still, matsutake show one kind of collaborative survival.”

#### Outer Space definition

DoC 16 [Department of Commerce; February 22, 2016; National Oceanic & Atmospheric Administration, “Where is Space?”, <https://www.nesdis.noaa.gov/news/where-space>] brett

But where is “space” exactly? This may seem like a simple question, but any answer beyond “up” may be more complicated than you think. Although most people are generally in agreement that space begins when Earth’s atmosphere ends— where exactly that is depends on who you ask.

International law states that outer space shall be free for exploration and use by all, but there is no definitive law stating where national air space actually ends and outer space begins. This leaves the door open for a variety of interpretations.

A common definition of space is known as the Kármán Line, an imaginary boundary 100 kilometers (62 miles) above mean sea level. In theory, once this 100 km line is crossed, the atmosphere becomes too thin to provide enough lift for conventional aircraft to maintain flight. At this altitude, a conventional plane would need to reach orbital velocity or risk falling back to Earth.

The world governing body for aeronautic and astronautic records, the Fédération Aéronautique Internationale (FAI), and many other organizations use the Kármán Line as a way of determining when space flight has been achieved.