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Homo Stellaris and the Uncommon Commons: Who Should be the Subject of the Post-Planetary Future?

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Who Should be the Subject of the Post-Planetary Future?

1) *Back to Space*

Our title may seem absurd.

Is there a subject of the post-planetary future? Will there be a post-planetary future? Is this not merely a question for science fiction, even a science fictional question?

Such questions and doubts are justified, and the following undoubtedly has much in common with what Donna Haraway (2016, p. 10) has called “speculative fabulation:” it is a myth of two “string figures,” two conceptual personae, two different ways of being a player in an anticipated post-planetary world, two ways of thinking about how science fact, speculative fabulation, science fantasy, and so forth might come together as humankind—or more properly—post-humankind—becomes post-planetary, spreading out beyond the Earth and into the solar system. That said, and herein lies the rub, the question that concerns us it to a certain sense not speculative at all, nor is it one that needs to await its time, to be confronted only after we have concerned ourselves with the crisis of the present, call it what you will—the Anthropocene, the Capitolocene, or the Plantationocene. This is quite simply because all of these -cenes, all of these ways of organizing technosocial nature/cultures in the present are already post-planetary.

With the dawn of the new economic space age, what Pyle (2019) has called Space 2.0, the human-driven deregulation of the Earth system is already expanding out well beyond the Earth. The new space economy is booming. Former U.S. secretary of commerce Wilbur Ross (2018) has affirmed that his goal was to “unshackle American industry and ensure American leadership in space,” and a promethean effort to space to commerce is well underway. Ross worked for Trump, but the privatization of space has been embraced by both the American left and the right (and by China, Luxembourg, UAE, India, Israel, and others besides).¹ The past few years have seen an explosion in the number of private rocket launches. These have delivered thousands of satellites into orbit, a state of affairs that is already provoking discussions regarding the right to appropriate near space, with outraged scientists noting that these satellites are blocking views of the “starred sky” (International Astronomical Union, 2020, p. 14). Near space is already crowded. Space junk is already a significant concern. Space X and Blue Origin are selling trips to space tourists, and the first space hotel is slated to open in 2027. Much more activity in deeper space is planned. Money has been spent to open mines on the Moon and on asteroids, and companies are already testing in-space manufacturing technologies capable of transforming the raw materials mined in space into salable in-space commodities. In the long-term, it is not unimaginable that certain zones in space will become residential housing developments. Simply put: the post-planetary future is real, and it is already happening. In other words, while the inhabitants of future places in space are indeed but speculative fictions and fabulations, technologies and investments are already transforming outer space into the off-world equivalent of what Gómez-Barris (2017) has called an extractive zone, a space whose intrinsic value has been claimed to be zero, and so which is exposed to the full force of the violent appropriative

¹ For example, the Obama-era Congressional Space Act (2015) and the 2018 and 2020 proclamations of the Trump Administration.

logic of post-global capital which functions with no restraints relative to the transformation of space's pure and negative potentiality into marketable commodities.

The question of focusing now on who should be the subject of the post-planetary future is thus of highest pertinence, not because humans are currently dwelling in space, but because the current wave of space expansionism is already transforming the material and environmental conditions of places in space in such a way as to potentially render impossible a stellar future—which is not to say a future among the stars, but one that is better than the seemingly dark present that currently goes by the name the Anthropocene.

2) *Homo Anthropocenus, or Whitey on the Moon*

The subject of the current phase in the becoming of the post-planetary future appears to be *homo anthropocenus*. This is a string figure, an overly generic outline of a way of being that fits with a certain dynamic constellation of attitudes towards the self, the body, Earth and places in space, a conceptual character in Deleuze and Guattari's (2013, loc. 1131) sense of the term, a figure that makes manifest the "absolute territories, deterritorializations, and reterritorializations of thought," but perhaps also runs the risk of being a simplification of the real diversity of beings and modes of being. *Homo anthropocenus* is, in other words, a figure for a philosophy. He is also, hence the choice of names, the agent *Anthropos*, the human being whose way of seeing the world is responsible for the Anthropocene, the current deregulation of the Earth system, a state of affairs that will soon enough be extra-planetary, such that there may be a sense of already speaking of not just Earth system deregulation, but of solar systemic deregulation. To be clear, just as this agent actor in the becoming of the Anthropocene is not all humankind, but rather—as Elaine Gan, Anna Tsing, Heather Swanson, Nils Bubandt (2017) have pointed out—the way of being *Anthropos* that is proper to "corporations and conquerors." In other words, *homo anthropocenus* is also the agent of the Capitolocene and the Plantationocene, terms which have recently been coined to better emphasize the entanglement of the current deregulation of the planet with the forces of the market as well as the power/knowledge relations established by colonial pasts, presents, and futures. If we call the agent of the current wave of space expansion *homo anthropocenus* we do so to emphasize the entanglement of the current enthusiasm for space and the current crisis of the planet. Jeff Bezos (2021, p. 247)—as representative of a figure for both *homo anthropocenus* and the ideology of new space as one can find—makes this connection perfectly clear when he argues that the Earth has now become "small"—with a penury of limited resources and poor possibilities for long-range growth—such that the only solution for humanity is to move "out into the solar system" where "we will have, for all practical purposes, unlimited resources." Elon Musk (2017, p. 46), another fine mouthpiece for this mode of being, argues that we need to become "a multi-planetary species," then we will be wiped out by "some eventual extinction event," words that can hardly be read without evoking Elizabeth Kolbert's (2014) synonym for the Anthropocene: the "sixth mass extinction event." Yet it is important to emphasize that *homo anthropocenus* is not only fleeing from the Earth system, but also is exporting its un-sustainable and anti-ecological way of being out into the solar system ("Nuke Mars!" says Musk (2019)). This nuking is supposedly to be done in the name of terraforming and rendering habitable, though it is clear that nuking anything is not an ecologically careful or responsible way of relating to anyplace. Indeed, in light not only of the nuking but also of the general attitude towards transforming space for the ends of *homo*

anthropocenus we propose that the term that really fits the bill is not terraforming but rather *anthropocenoforming*. Anthropocenoforming is the action of transforming an alien system—be it another planet or the Earth—in such a way as to strive to permit the perpetuation of the otherwise unsustainable mode of being that is characteristic of the *homo anthropocenus*. It is, for example, the anthropocening of the Earth that Erle Ellis (2011) has in mind when he suggests that the proper response to the Anthropocene is to terraform the Earth so as to bring about a “good Anthropocene.” At the core of being of this unsustainable subject is an uncaring relation towards all that is other, alien. Gil Scott Heron diagnosed this fundamental lack way back in 1970 when he reminded us that “Whitey’s on the Moon,” with the phrase meaning not only that whitey had gotten *there*—but also that he was *spaced out*, inattentive to his surroundings, caring more about planting plastic flags and showing the power of the white stuff than attending to those sufferings and disorders rampant back on the ground, such as the fact that “a rat done bit [Gil’s] sister Nell.” Whitey’s being on the moon has made him ignorant of the ill effects of inequality and the environmental slow violence against the poor. Indeed, even if the tale (as it is often told), is that whitey got to the moon and looked back and “discovered the Earth,” the fact remains insofar as whitey has gotten less spaced out relative to the Earth over the last fifty years, this has only contributed to his desire to go back to the moon (this time to stay).

3) *Homo Stellaris, or the Future Inhabitant of Terra Nullius*

Homo anthropocenus appears to be the primary agent in the becoming of the post-planetary future and to some he is also its rightful subject. To quote the April 6, 2020 “Executive Order on Encouraging International Support for the Recovery and Use of Space Resources” by President Donald J. Trump: “Americans should have the right to engage in commercial exploration, recovery, and use of resources in outer space, consistent with applicable law. Outer space is a legally and physically unique domain of human activity, and the United States does not view it as a global commons.” Under current international space law, it is forbidden for states to declare sovereignty over places in space. However, the current laws (or rather the dominant interpretation of these laws) allow for some latitude with respect to the private appropriation of outer space. As early as 2015, the United States and Luxembourg drafted laws supporting the private appropriation of space places and resources. The general line of thought supporting the right to the private exploitation of outer space has been the claim that outer space is a *terra nullius*, a place that belongs to no one, and so (rather like the natural resources available in the imagined state of nature discussed by Locke (p. 32) and other natural lawyers) the places and resources of space are thought to belong to he who “hath mixed his labour with, and joined to it something that is his own,” in essence, to those enterprising enough to go out there and transform the alien matter of space into socialized commodities. The typical understanding of the contrary view—as is suggested in the Trump quote above—is the idea that outer space is a global commons. According to this view, the rightful subject of the post-planetary future is “all mankind.”

We hold that both of these positions are flawed, on the one hand because space is not totally uninhabited but rather already invested with the freight of anticipations relative to the coming of *homo stellaris*—the figure that we will argue is the rightful subject of the post-planetary future, and on the other because the purportedly commons-like nature of space fails to capture the ways in which outer space is precisely an uncommon commons, with very little in common with the

traditional commons in English law, is “a pasture used by all residents of a village” (to quote the definition of the term employed by COSPAR president L.A. Fisk (2016).) Unlike everywhere on Earth, and certainly unlike all village greens, no human beings can, or do, live and interact with outer space in an unmediated and permanent way. To be sure, human beings can temporarily go so space—astronauts have spent up to a year in the ISS. They can also look at places in space through telescopes or via in-space images transmitted back by rovers. But these are highly exceptional instances, and they involve only a very limited relationship to space. Factually speaking, for human beings to go to space and to stay there, to live with places in space in a way that is similar to the way in which human beings live with places that are common on Earth, they will need to cease being human beings, at least to the extent that their bodies will need to be altered in order to permit them to adapt to being in, and living with, space places as they are—and not as they, in some anthropocened future, might be made to be through their negation and reformation. A recent study (Hampsen & Johnson, 2019) of the bodily modifications necessary to enable permanent dwelling in outer space places calls this post-human subject of the post-planetary future *homo stellaris*, people of the stars, and so too shall we. *Homo stellaris* is no less a science fiction than *homo anthropocenus*. It will be born out of an attempt to adapt the human being in such a way that it can enter into a long-term lived relationship with a place in space that respects the alien nature of that place. As such, the term *homo stellaris* is also a misnomer: for if there are to be *homines stellari* they will be Martians, Mercurians, and Looneys, unified in their mutual difference. There is not one stellarkind, yet what they will all be is other than *homo anthropocenus*. All will have bodies that have submitted to a process of xenogenesis and so will have become aliens or cyborgs so that Mars might remain Mars and the Moon the Moon. Which is not to say that their becoming alien will not alter these places in space. But it is to say that these post-human dwellers of the solar system desire to go to a world that is alien and to such an extent that they accept to become alien themselves, to allow themselves to be remade according to ecological and xenogenetic logics. *Homo stellaris*, in other words, is an alien, and beyond that a fictional being, but not—for all that—a being that does not always already exist as an anticipated future dreamed of by already existing subjects. To be sure, the dream of becoming a *homo stellaris* is open to all, and so arrogating the right to the post-planetary future to this alien is hardly to deny the post-planetary future to all humankind. But it is to recognize that factually speaking, very few have actually dreamed of becoming *homo stellaris*, and those who have—and we will return to this in the following—were mostly outsiders, afro-, gyno-, indigenous and queer futurists, advocates imagining space from a decolonial or alternative perspective, and that is to say subjects who virtually never felt themselves to be welcomed within the purportedly universal subject position of “all mankind.”

4) *An Uncommon Commons*

It may seem peculiar to argue for the right of a being that exists only as an anticipation and to deny the well-worn argument that space is a commons. Yet weak as it is, we hold that this view is stronger than many of the current arguments against the claim that space is a *terra nullius*, which from our point of view frequently fail to sufficiently reckon with the uncommonness of space as a commons, which is another way of saying that they accord too little weight to the fact that space really *has little in common with the pastoral fantasy of space as commons*.

Truth be told, we would happily admit that the *best* argument against those that claim outer space is a *terra nullius* would be that long-sought astrobiological revelation of alien life. Which is to say that claims like Charles Cockell's (2005) argument that we need to acknowledge the rights of Martian microbes (just as we have acknowledged the rights of trees and ecosystems back on Earth) would be good if there were known microbes, but they are less convincing when Sarah Johnson (2020, p. 19) and other leading astrobiologists admit that "the reality of the cold, hard, desolate world" of Mars (but also everywhere else in our solar system) is "beyond anything that scientists had imagined, beyond even the imaginations of the great science-fiction writers" in terms of its uninhabitability. The same goes for arguments such as Deondre Smiles' (2020) intimation that the current wave of space expansionism is problematic because risks repeating the violence inherent in the "settler logics" of the European colonizers of North America insofar as they also involved claiming that the places that they were being appropriated were *terrae nullius* (while in fact these places already "had complex cultural frameworks and political entities long before colonization.") As is simple to demonstrate, the settlers of America worked hard to dissimulate the obvious fact that the land already was inhabited, while—and quite to the contrary—significant and scientifically reputable efforts have been made to discover and document alien life.

But given that there doesn't seem to be anyone out there, the best we can do is to identify ways in which space is always already inhabited, sometimes by anticipation, sometimes within tradition, in order—at least—to illustrate ways in which the appropriative destruction of extractive space colonization might be causing harm. One way of doing this has been to focus on the past and on traditional relationships to between Earth dwellers and space. Smiles, drawing on research done by M.J. Young (1987), notes that Inuit shamans have traditionally "visited the moon and the moon people." His point is well taken, insofar as the construction of satellite constellations or visible structures on the moon would degrade this established way of being with the moon, and so harm the Inuit by stealing both their past and their future. Yet it must also be said that the force of such an argument, namely one that brings the right to space back to beings on Earth is limited. The unfortunate reality is that human eyes are extremely ill-equipped for perceiving changes in places as distant from Earth as the moon. After all, even telescope-equipped scientists such as Lowell and Flammarion thought that they were seeing alien-made canals and seas on Mars until well into the 20th century. In other words, we can't really claim that traditional—and that is to say Earth-bound—ways of being with space will be harmed by extractive activities in deep space. The only ways in which the exploitation of deep space can be said to harm the rights of beings is insofar as these beings are imagined to actually be in space.

As strange as such a line of argumentation might seem, it is not unprecedented to argue against space exploitation in the name of future space beings. Alice Gorman (2019), for example, suggests that we need to protect Tranquility Base—the site of the first Apollo Moon landing—not only because of what it represents from the perspective of the past, but also for what it is likely to become in the future: namely a pilgrimage site for future space tourists from the world entire. This is a convincing argument, and there seems little doubt that Tranquility Base will and should indeed be protected. But in a way this argument also foregrounds the very problem with alleging that outer space is a global common possessed by all humankind. After all, if we are to ask ourselves what human beings in the future might do in space—i.e. how they might interact with places in space as we interact with our Earthly commons—we can imagine few situations

other than the exceptional voyage into space and back to the Earth such as is implied in lunar tourist visits to Tranquility Base, and this is because their bodies, unlike the post-human body of *homo stellaris*—are not capable of actually dwelling in space, and of actually using it like a commons. In other words, the very fact that space is such an uncommon commons implies that those looking for cases in which it might be used like a common end up—quite unintentionally—ceding most of space to *homo anthropocenus*. Which is why only a fictive being correlating with a real tradition of anticipation in which the human will have become post-human in order to establish a new and alternate future in space can make an adequate claim to even possibly embrace and to inhabit all places in space as oppose to those which can be seen from the Earth, or which can be part of social practices that are available to ordinary Earthlings.

5) *Has Homo Anthropocenus ever wanted to go to space?*

The attractiveness of claiming that the right to the post-planetary future belongs to *homo stellaris* does not merely derive from the ways in which this view expands upon and supplements the weaknesses in existing arguments against space colonization. Instead, its interest derives above all from the fact that when the post-planetary future viewed in light of *homo stellaris* it becomes clear that *homo anthropocenus* has never wanted to go to space in the first place, and so in a sense has never made a claim on space to begin with, but only a claim on (not)space, by which we mean either fantasy constructions relative to what space is, or what it might be.

Admittedly, this claim seems paradoxical and historically false: has the conquest and colonization of outer space not been one *homo anthropocenus*' most cherished dreams? Isn't the whole history of space exploration a product of whitey's desire to go to the moon, to conquer infinity and beyond? Have not all the past actors in the name of going to space been precisely and stereotypically the ancestors of the current wave of space entrepreneurs? It is our contention that when we look closely—as we shall do in the following sections of this text-- we discover that where *homo anthropocenus* wished to go was never outer space—not outer space as it has been revealed and documented by science—but an imagined space that could be conquered by his unmodified human body (the astropastoral fantasy of space as a commons), or alternately, an imagined space that could only be produced through the anthropoforming of space implying the annihilation of space as it is (the transformation of outer space into a renewed garden world). In fact, as we will argue in the following, one way of understanding the end of the first space age is to see it as a direct result of whitey's realization that he could not go to space as it was, and that is not to say that the white stuff could not *get* to space, but rather to say that the very condition of going to space to stay was understood to be the sacrifice of the white, straight, body that was the symbol of possession of the “right stuff” on Earth, and the end of the first space age occurred when whitey realized that he did not so much want to go to space after all.

6) *Space and the Castration of the White Action Hero*

If Gil Scott Heron proclaimed that it was “whitey” who had gone to the moon, it was at least in part because the fantasy of conquering space had long been entangled with a fantasy regarding the superpowers of white manhood. One only has to look at the entire logic guiding the selection criteria for the first astronauts to see that this was the case. What, after all, was this famed “right stuff” that they all possessed? Tom Wolfe (1979, p. 20), he who coined the term or at least

popularized it, perfectly well identified it as a masculine essence: “nothing less than manhood itself...Manliness, manhood, manly courage.” But the right stuff was more than masculinity. As Neil Maher (2017, p. 144) reports, what NASA administrators claimed to be looking for were “supermen:” not just males, but beings of such transcendental fitness that they were capable of conquering everything—including outer space.

Of course, the point of this search for the right stuff was deeply tied to a performative affirmation of the power of the white stuff, for these supposed supermen were, after all, whiter than white, perfect apotheoses of normative 1960’s straight white American manhood. Unfortunately for whiteness, however, outer space places little respected normative ideas regarding superlative white male fitness, and so the history of space expansionism was also a history of the humiliation of the white stuff at the hands of a still untamed outer space nature. To see how the encounter with the reality of outer space curbed the white stuff’s enthusiasm we need only consider the changes to the representation of the potency of the white male body relative to the conquest of space from the pre-space age until just after the completion of first wave of manned space missions, which is to say approximately to the point when NASA began a transition towards making manned exploratory missions a secondary priority (in a large part due the realization, informed by a massive influx of new scientific data, that unmanned probes were much better suited for the exploration of outer space than even white supermen were). Consider, for example, the radical difference between the depiction of the power of white stuff relative to the alien in Méliès’ *Le voyage dans le lune* (1902) and Frederick Pohl’s *Man Plus* (1976).

Méliès’ film belongs to what might be called the fantastic age of space—a period in which even leading scientists such as Percival Lowell and Camille Flammarion imagined Mars as an inhabitable realm much like the Earth. This fantastic continuity between Earth and space environments is registered in *Le voyage dans le lune* in the way in which the explorers dress: namely in travelling clothes reminiscent of the ones worn by 19th century adventurers in the colonies (no space suits here). The assumed analogy between the colonized places on Earth and the Moon continues in the action of the film. When the voyagers arrive on the Moon, they are captured by Moon-men who, based upon their mode of dress and their low-tech weapons, inevitably recall the peoples encountered by European explorers in the depths of Africa and South America. Yet in a way the most interesting thing about *Voyage* is the point at which it departs from the conventions of colonial exploration literature (for example, a near-contemporary text like H. Rider Haggard’s *King Solomon’s Mines*). In these colonial texts it is always technology and intelligence that set the white man above the native. But on the moon as imagined by Méliès it is precisely the white body that is literally superhuman: in order to escape from the Loonies, their leader walks right over to the alien chief, lifts him up with superhuman strength and throws him to the ground (whereupon he explodes). Chased by the aliens, the astronauts then return to the Earth, exploding a few other aliens along the way, but leaving no doubt that should they wish to return, colonizing the Moon will be no stiff task, because the very essence of the moon is that it is the place where what is fantasy in the colonial enterprise—namely that the white man is superman—has become literalized in the post-planetary future. Note too that it is not force of arms or technology that explains this dominance—the machines that were (to allude to the work of Michael Adas (2015)) the “measure of men” within the colonial reality—but rather the white body as such, which in *Le voyage* is depicted as overpowering the alien even without need of technological supplementation.

Needless to say, some of this faith in, and indeed this desire to go to space to demonstrate, the power and potency of the white male body was still a part of the first wave of manned space expeditions. But things were profoundly changed by the time of *Man Plus*. Human beings had gone to the Moon—and found it both uninhabited and inhospitable. They had also begun to take account of the full difficulty for human bodies of long-term stays in space. *Man Plus* was written at the tail end of a period in which human beings had been extremely optimistic about terraforming space. Looking at slightly earlier texts by authors such as Robert Heinlein, one might have had the impression that terraforming space was going to be as easy as settling the Wild West, and that little more was going to be needed than the temporary protection of space suits and the good old American manly virtues of hard work and ingenuity. Yet *Man Plus* signals a new phase in this narrative—a new realism regarding the costs of dwelling in outer space. Simply put, in *Man Plus* Pohl suggests that for human beings to live in space, to “stay alive, without external artificial aids” they will have to become *homines stellaris*, post-human beings, “cyborgs” (pp. 25-6). But this discovery is not treated with joy but rather with horror. The hero of Pohl’s book, Roger Torrway, the first engineered Martian, the first “Man Plus” is the exact opposite of an embodiment of the superhuman potency of the white male. He is, quite to the contrary, a man minus: a eunuch. As one of the scientists in the story explains to the U.S. president: “They castrated him, Mr. President. What the sultans used to call a complete castration, penis and all. He doesn’t need it, because there’s so little consumable going into him now that it all gets excreted anally, so it was just a vulnerable spot. There’s no question it had to come off” (p. 128).

Seen through the lens of Pohl’s text, one is tempted to say that the end of the first space age was deeply entangled in the realization that the white male body, which was perfectly well symbolic of the right stuff in American society, was anything but the embodiment of the right stuff in space. The point was not that the white man could not go to space, but rather that the terms imposed upon him implied that even this victory was a kind of symbolic defeat. Which in turn meant that the actual idea of going to space, with the reality of space having been taken into account, had lost its allure. Just as well to shift over the priority of space conquest to machines, which at the very least would allow for an ongoing show of superiority for the white mind.

7) *Homo Stellaris Emerges from the Darkness*

As this unmanning of the trajectory of the white stuff was occurring, a different vision of the future was emerging in black America. Led (somewhat surprisingly) by *avant-garde* musicians such as the jazzman Sun Ra and, somewhat later, the band Parliament-Funkadelic, *avant la lettre* representatives of the cultural movement now known as “Afrofuturism,” a new and anticipated image of the human future in space was coming to light.² This new human being, or more properly, this anticipation of a future post-human *homo stellaris*, fully embraced the costs of space, for becoming alien was precisely no castration, but the undoing of a past and an opening towards an alternate future.

Sun Ra, for example, expresses no fear in being taken by the aliens, no fear of losing his body to be with space. Indeed, according to his testimony he had already been taken by aliens to Saturn

² On Afrofuturism and its origins see: (Womack, 2013) and (Dery, 1994).

and “transmolecularized,” (Szwed, 1988, p. 29) made alien, or at least sufficiently so as to enable him and his Arkestra to connect with the tunes and rhythms of outer space, and to bring these back to the people to prepare them for a future in space. As he explains, in his idiosyncratic and yet rich interstellar poetry: “In this age of Outer Space challenge, people will have to change their tune, i.e. they will have to be tuned up or down (according to what is necessary) another way. The intergalactic council [sic] has a different tuning system. The insistent idea is that people will have to change their tune and that tuning should be in tune with the intergalactic outer universe, which is everything which is not yet in” (Ra, 2005, p. 463). Sun Ra’s task was making tunes that would do this tuning, would prepare the people for “the living future of the living tomorrow” by unlocking “the greater potentials awaiting the peoples of the worlds at every future point on every future plane” (Youngquist, 2013, p. 1775) Where the white stuff refused transmolecularization on the grounds that it implied passivity before the alien and hence symbolically amounted to castration, Sun Ra proclaimed to his listeners that they needed to be open to a becoming which would come from the outside: “You can’t go into outer space unless you count down to zero. Everything started from zero, you see. You count down to zero, then you can go into outer space. They do it, NASA does it every day, they count down first” (2005, p. 1).

It may be surprising, but it is not coincidental for the becoming of an anticipated *homo stellaris*, that Sun Ra was a musician. As John Hamilton (2008) has pointed out, instrumental music has long been looked upon with fear and suspicion precisely because of its power to take control of the body, and so to overpower—or unman—reason. Yet as a practical activity music making can be said to already be a site of cyborg becoming. Learning how to play an instrument is about transforming the human body so it can become hybridized with its instrument, a transformation that Sun Ra, a bandleader, playfully retuned when he described—his players but also his listeners—as “instruments in a sense” that “got to be tuned up,” “tightened up like they do a piano” (Youngquist, 2013, p. 4703). Restated somewhat differently, music making and music listening have always been about creating new and alien socio-technical assemblages and environments. To get down with the funk—as Parliament and their audiences most definitely did while listening to their 1975 album, *The Mothership Connection*—was thus always already on a small way to be engaged in becoming *homo stellaris*, and that is to say a being who did not perceive of alien becoming as a castration, but as a way of going up while getting down:

Welcome to station W E F you N K, better known as We-Funk

Or deeper still, the Mothership Connection

Home of the extraterrestrial brothers

Dealers of funky music, P.Funk, uncut funk, the bomb

Coming you directly from the Mothership

Top of the chocolate milky way, 500, 000 kilowatts of P.Funk power

So kick back, dig, while we do it to you in your eardrums

Put otherwise, the funk, for P-Funk, was kind of high-tech drug that both came from beyond and took its listeners back up into an alternative afro-astrofuture, one in which their post-planetary bodies—like their bodies while under the influence of P-Funk’s funky base lines as mediated through electronic instruments and radio towers—would move and be transformed, be liberated from the horrors of the middle passage as they connected with an alternate reality in which the symbolic power invested in the white body would be dispersed, and a new way of being in blackness would emerge out of the chocolate milky way.

Admittedly, both Sun Ra and especially Parliament sometimes seem so far out that it is hard to take them seriously. They were pointing toward hope that they glimpsed in the newly accessible reality of space, but they were perhaps not truly making plans to head off into the stratosphere. One wonders, for example, whether George Clinton would really be ready to go under the knife to become Martian, or whether he was really only ready to put on a space man cyborg costume as he danced about on stage. Yet it is hard to have similar reservations regarding Donna Haraway's famous proclamation, issued in 1985, that she "would rather be a cyborg than a goddess" (p. 108).

8) *What the Cyborg Manifesto Made Manifest*

As a scientist and historian of science, Haraway knew perfectly well that being a cyborg implied becoming a technologically modified organism—implants and all. But she also understood that it was precisely this opening up towards a post-human form of embodiment that was the key to embracing future modes of being—"quite different political possibilities and limits from those proposed by the mundane fiction of Man and Woman." (1985, p. 104) More to the point, she perfectly well saw how the embrace of becoming cyborg was a "strategically" astute choice to shake up the hegemony of the white stuff, offering an even more radical empowerment than the Earth goddess idea defended by Mary Daly in her *Gyn/Ecology* (1978) (a vision in which womankind ecstatically becomes one with Gaia as a crew member and pirate travelling aboard the intergalactic organic spaceship that was planet Earth.) After all, consenting to become post-organic was precisely the ticket not only to form new sociotechnical entanglements with the Earth, but also to embrace all regions beyond as well. Reading through her writings, which were mostly composed in the period during which the space age was largely imagined to be at an end, Haraway herself is not particularly interested in going to space. She was, however, fascinated by chimpanzees. Indeed, in her *Primate Visions*, Haraway proposes that a chimp—the "cyborg chimp HAL" might well be the first true *homo stellaris*, the first and most "perfect child of space" (1989, p. 138).

HAL, for those who do not know him, was the first American astronaut, and he—unlike the exemplars of the white stuff whose bodies had been unmodified—was a cyborg. Yet cyborg or monkey or whatever, HAL had performed every task on his way to space just as "competently" (Haraway, 1989, p. 138) as the supermen of the space program. More to the point, this had been perceived as a huge affront to the astronauts' pride, and a huge challenge to those preparing to embark on the manned mission to the moon. As Haraway cheekily recounts, John Glenn—the first American man to orbit the Earth—publicly affirmed that he was out to demonstrate the "superiority of astronauts over chimpanzees." (p. 139) But if the press at that time felt him to have done this (Haraway quotes the *Newsweek* headline announcing Glenn's flight: "John Glenn: One Machine That Worked Without Flaw" (p. 138)), the reality looking back at the 1960's from the perspective of the 1980's was utterly otherwise. In other words: the white stuff had lost, and monkeys, cyborgs and machines had won.

But it was not only cyborg chimps and robotic space voyagers who had humiliated the white stuff in space—it was also women and the scientific study of the effects of space environments on women's bodies, scientific studies that made precisely clear just how science and technology

might function to undo the patriarchy. As the tale had traditionally been told, the selection of the first astronauts was a highpoint in the mythic inflation of the superpowers of the white male body. Andrew Chaiken (2007), for example, insists that the first astronauts passed the most rigorous selection process ever, showing themselves to be truly exceptional specimens, paragons of human fitness in every sense of the word, by submitting to having themselves tested in myriad ways: on treadmills, stationary bikes, through IQ exams, and even intestinal measurement examinations. Yet the superiority of these supermen was pure fiction, and this was revealed when the women's movement succeeded in forcing NASA to test women to determine their fitness to become astronauts. NASA originally rebuffed their claims, sometimes insisting that it was simply looking for the best qualified people and other times making off color jokes about the services that women might perform on space missions (Maher, 2017, p. 165). But in the end the results showed that women were (to quote a 1985 NASA Ames Report), just as "suitable as men for space travel" and may even be "more suitable for space missions than men in some ways," (Connors, et al., 1985, p. 655) since they weigh less, consume less food and oxygen, are more radiation resistant, and also are possibly psychologically better suited to the rigors of long space missions. That said, what science really affirmed was not that it was women who were the true and perfect children of space, the *homines stellari*, but rather—and only—post-humans and cyborgs. And these were the beings that Haraway, inspired (among others) by the writings of Octavia Butler (2014) and her profound vision of xenogenesis (which, in Haraway's words "mediates the transformation of humanity through genetic exchange with extraterrestrial lovers/rescuers/destroyers/genetic engineers, who re-form Earth's habitats after the nuclear holocaust and coerce surviving humans into intimate fusion with them" (Haraway, 1985, p. 102) but which also includes (though Haraway doesn't point this out) a future becoming Martian) which in a sense serve as a bridge between Afrofuturism and her gynofuturism, wanted to be or become.

Our point, then, is merely to suggest that cultures of anticipation relative to the becoming of *homo stellaris* do exist, and that these cultures have indeed embraced this future in full and knowing awareness of the castration that it implies.

9) *But What About Humanity +?*

Humanity + is a contemporary transhumanist organization dedicated to transcending the limits of the human body, and an advocate, among other things, of the colonization of the solar system. In light of the previous sections then, it seems important to say a word about how and why the kind of post-humanism embraced by contemporary space advocates and advocated for by thinkers as early as J.D. Bernal (1903) and up until Ray Kurzweil (Kurtzweil, 2005, p. 1), with his fantasy of a coming Singularity in which "machine intelligence will surpass human intelligence" and a "merger of biological and nonbiological intelligence" will occur, yielding "immortal software-based humans" who will "expand outward in the universe at the speed of light," still perpetuate—albeit in a modified and spiritualized form—the same abhorrence of actually going to space, and indeed the same will to protect the white stuff from reality and becoming alien, as the visions of the future in space that we have seen above. This strange and perverse iteration of the persistence of an unsustainable paradox is given full expression in Neal Stephenson's *Seveneves* (2015), a novel that has the considerable merit of illustrating the connections between the current threats to the Earth and the new—and ever more widespread—willingness to sacrifice

or modify the body of the white superman, even if it does fail, somewhat absurdly, to draw connections between the seemingly superannuated state of human bodies relative to future forms of subjectivity and the unsustainability of the modes of being of contemporary subjects.

Seveneves depicts a future in which humankind, confronted with the catastrophic end of the Earth, has been forced to abandon the Earth for an ark ship (this catastrophe is not linked to environmental abuses but occurs because an incoming cosmic body has rendered the planet uninhabitable). Well-versed in, and obedient to, the scientific findings regarding human bodies in space, Stephenson recounts how the male members of the remaining population die off, victims of cancer and other contingencies, until the only remaining survivors are the seven Eves of the title. Meditating on how to continue the human population without the white stuff, they come up with a plan to clone themselves, or more properly, to use gene editing technologies to create partial clones, children based on their own DNA but with certain minor alterations. They decide, for example, to eradicate tendencies towards congenital illnesses from their inheritors, but also take a more affirmative stance towards gene editing: each Eve is allowed to select “one alteration—one improvement” that will be added to their children’s genomes, and which will determine the destiny of their inheritors. “Your child, your choice” (p. 562) is how Stephenson puts it.

As it is framed by Stephenson, this choice is in a certain sense a decision over the futures of humanity, with each of the Eves giving birth to a single form of post-humanity, none of which will ever “merge into a single human race again” (p. 563). Yet of course in this moment of divergence and decision, this moment in which humanity becomes post-humanity, one would expect also some sign regarding what Stephenson regards as the essentially human, that which is conserved even in the transcendence of what was humankind. And it is here, in the context of this transformation, in this moment of decision that seems to be totally gynocratic becoming, that the white stuff re-appears—as that which Stephenson clearly imagines to be the spiritual essence of humanity. As one Stephenson’s characters announces, with respect to these births, each of the women will be “both the mother and the father” (p. 563) to their future offspring. So what part of this birth is masculine, what part of this sevenfold divergence maintains the human within the post? The answer is simple. The mothers are mothers insofar as the divergent genetic material will come from them, and insofar as the eggs will be implanted in their bodies. Yet they will be fathers in the sense that they will impose their will via their arbitrary choice regarding what will make their child superior. More to the point, none of the mother/fathers chose environmental attunement, a will to be with the alien world in which they now dwell, but all rather select traits that supposedly will aid them in the re-conquest of all reality: superior intelligence, discipline, aggressiveness, and so forth. Confronted with a situation in which something like a scientifically empowered xenogenesis was a real possibility—Stephenson pulls back and offers arbitrary decisions regarding the future of human becoming justified each in turn as accessories to an anti-ecological will to self-preservation that is framed as the essence of the human. Of course, this humanity has nothing to do with presentation of being human at all, it in fact amounts only to the symbolic salvation of the hegemony of the white stuff, that being at antipodes to embodiment and alterity. Needless to say, the children of the seven Eves do not develop deep intimacies with their new planetary homes or even with each other: they go out and anthropoform the solar system.

10) *Prospects for a Stellar Future*

At the end of his *Zur Genealogie der Moral*, Nietzsche proclaims: “*lieber will noch der Mensch das Nichts wollen, als nicht wollen...*“ (p. 412).

Such is precisely the case here with respect to the white stuff: what it has wanted in space has never been what is there, but rather a total separation from the material conditions of space as a reality conditioning the exercise of the will. This is the same will to nothing that drives the current expansion of the Anthropocene out into the solar system in the name of “sustainability,” a will to sustain growth with little care to regarding what is grown, nor who grows it. In other words, the forms and fantasies of the post-planetary future dreamed by *homo anthropocenus* have learned nothing from the ongoing destruction of planet Earth at the hands of a humanity that wants to be above it all and has always been on the moon—but not literally. Indeed, it may be said that if *homo anthropocenus* has learned anything from the Anthropocene, it seems only to be that he will need alternate places, and alternate embodiments, to maintain some continuation of his current mode of being with its consistent failure to recognize and reconcile itself with the alien.

It might, in closing, seem justified to explore some new declosures in the collective imaginary, to dwell on some nearer forms and fantasies of *homo stellaris*. Such figures are indeed to be found, for example in the science fiction of Kim Stanley Robinson, Charlie Jane Anders, Becky Chambers, and Nnedi Okrafor as well as in the work of film makers such as Nanobah Becker. Yet there is a risk that dwelling on the contemporary vision of *homo stellaris* might promote misunderstandings. *Homo stellaris* is not a rival to *homo anthropocenus*, locked in a battle for hegemony over future of the solar system in the way that Stephenson imagines the children of his Eves to be locked into a contest of asocial sociability with one another. Those who anticipate becoming *homines stellari* do not want to conquer space. They are merely open to becoming stellar beings; and that is not at all the same. As xenogenetic beings that are attuned to the alien, they are also deeply concerned by to the alien world that surrounds them here on Earth. Thus, even if we claim that places in outer space do rightfully belong to the anticipated post-humans that we have called *homines stellari*, even if we do claim that these outsiders are the rightful subjects of the post-planetary future, we also desire to emphasize that they are in no rush to stake their latent claims to these new horizons with their bodies and beings. They wait patiently upon the alien, and in the name of the alien.

Which is not to say that they, or we, should remain silent or frozen. It is precisely now, in the name of protecting a stellar future, that we all must raise our voices in attunement with the funk of the *homines stellari*, and in the name of their rightful place in post-planetary future. After all, if we remain silent it may soon be too late, and the entire solar system may have become an extractive zone, yet another victim of the questing after conquest of the white stuff, a sacrifice to the pretense, and indeed the false claim, that the pillage of the solar system in the name of extracting resources is a deed that harms none and is mutually beneficial to all.

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